

## International Institutions in Hard Times: How Institutional Complexity Increases Resilience

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This paper asks how institutional complexity affects the resilience of global governance. By drawing on sociological differentiation theory, it interprets growing levels of institutional complexity as a process of institutional differentiation which allows the “political system of world society” to mirror the increasing complexity of its social environment. More precisely, the paper suggests that growing levels of institutional complexity enhance the resilience of global governance by providing states with a more diverse set of governance tools and by making backup governance tools available. Against this backdrop, it makes two interrelated contributions to the literature on global governance. *First*, by applying the concept of resilience to global governance, the paper provides the conceptual basis for a novel research agenda on the ability of contemporary global governance to operate under stress. So far, the analytical toolbox of global governance researchers does not contain a concept that enables a theory-driven analysis of international institutions’ ability to facilitate cooperation when confronted with high levels of stress. *Second*, it offers a sense of how the central structural feature of contemporary global governance—institutional complexity—affects its resilience. With these two interrelated contributions, the paper seeks to start a scholarly conversation on the resilience of contemporary global governance.

**Keywords:** international institutions; institutional complexity; resilience; sociological differentiation theory

### Introduction

Institutional complexity is the central structural feature of contemporary global governance. It implies that the latter is not carried out within stand-alone international institutions that operate in isolation from each other, but within international institutions with overlapping competences which interact on a permanent basis in the absence of a central coordinating instance (Alter & Raustiala 2018; Faude & Gehring 2017; Orsini et al. 2013). As a result, states gain opportunities to pursue interests and maximize payoffs not only within, but also across separately established international institutions (Jupille et al. 2013).

International Relations (IR) scholarship has addressed various implications of institutional complexity for global governance. Most importantly, it has studied how institutional complexity affects the problem-solving capacity and the normative legitimacy of global governance (Drezner, 2013; Faude & Große-Kreul 2020; Faude & Parizek 2020; Hale et al., 2013; Kuyper 2014). At the same time, IR scholars have so far not researched how institutional complexity affects the ability of global governance to operate under stress. Put differently, they have not studied how institutional complexity affects the resilience of global governance. Indeed, resilience is not even part of the conceptual vocabulary used by IR scholars.

At the same time, contemporary global governance has been under tremendous stress in the last two decades. It has been confronted with various instances of rapid and abrupt change, such as pandemics, financial crises, unprecedented numbers of refugees, and terrorist attacks. Such exogenous shocks make inter-state cooperation particularly vulnerable. IR scholars define cooperation as the mutual adjustment of patterns of state behavior against the backdrop of discord. In other words, cooperation implies that states (partially) adjust their behavior toward the preferences of other states. International institutions are



the vehicles that facilitate such behavioral adjustment. In response to institutional provisions, so the theoretical argument goes, states adjust their behavior in a way that deviates from their preferred behavior in a world devoid of international institutions (Keohane 1984: 51).

However, history shows that exogenous shocks, such as the ones listed above, incentivize states to follow their preferred behavior instead of adjusting it to institutional provisions and, thus, to the preferences of other states. During pandemics and financial crises and when confronted with large numbers of incoming refugees or terrorist attacks, states tend to put a stronger emphasis on the short-term implications of their crisis responses for their own constituency than on the long-term consequences of their behavior for the realization of cooperation gains through international institutions. During a recession, for instance, state representatives are inclined to increase trade barriers in order to stabilize their own economies. In general, exogenous shocks tend to lead states away from the cooperative solutions facilitated by international institutions and towards competitive unilateral behavior. Thus, exogenous shocks create conditions under which it becomes particularly challenging for international institutions to influence the behavior of states in ways that facilitate cooperation (Drezner 2014; Kahler & Lake 2013; Kindleberger 1986).

For precisely these reasons, exogenous shocks provide an excellent opportunity to examine whether and in how far contemporary international institutions are able to operate under stress and, thus, whether and in how far they are ultimately fit for this purpose (see Gallopín 2006; Hasenclever, Mayer and Rittberger 1996; Young 1986). However, as mentioned above, global governance researchers lack a concept which facilitates such an analysis. Against this backdrop, the present paper introduces the concept of resilience to the analytical toolbox of global governance researchers.

Resilience is defined as the ability of global governance to facilitate inter-state cooperation despite heightened pressure for states to deviate from cooperative solutions and, by implication, to follow their preferred behavior in a world devoid of international institutions. In other words, resilience is defined as the ability of international institutions to preserve the (partial) behavioral adjustment of states toward the preferences of other states despite heightened incentives to withdraw from such behavioral adjustment.

On this conceptual basis, the paper interprets the growing levels of institutional complexity that global governance has developed over the last decades as a process of institutional differentiation which allows the “political system of world society” to mirror the increasing complexity of its social environment. More precisely, it suggests that growing levels of institutional complexity, *first*, provide states with a more diverse set of governance tools and, *second*, make backup governance tools available. By implication, growing levels of institutional complexity are conducive to the resilience of global governance. Importantly, however, growing levels of institutional complexity are not caused by the intention of states to increase the resilience of global governance. Rather, they are caused by their desire to respond to growing levels of transnational interdependence (see below). Thus, the increased resilience of global governance constitutes an unintended result of purposive state action (see Merton 1936). In other words, states did not deliberately *invest* in resilience by increasing institutional complexity.

The paper proceeds as follows. The *second* section clarifies further what resilience is, how it matters, and what it promises to contribute to our understanding of contemporary global governance. The *third* section introduces the central tenets of sociological differentiation theory and develops how institutional differentiation enhances the resilience of global governance by identifying two causally relevant factors: a diverse set of governance tools and backup governance tools. The *fourth* section concludes.

## The Concept of Resilience Applied to Global Governance

The concept of resilience has traditionally been used, *first*, by biologists to study the ability of populations or species to survive in the face of adversity and, *second*, by psychologists to study the ability of people to cope with stressful situations.<sup>1</sup> It generally describes the “capacity of a system ... to experience disturbance and still maintain its ongoing functions and controls” (Holling and Gunderson 2002, 50) or, in other words, the capacity to deal with rapid environmental changes (Aligica & Tarko 2014; Herrfahrtdt-Pähle & Pahl-Wostl 2012; Steinberg 2009). In short, the concept of resilience grasps persistence in unfavorable circumstances. By implication, international institutions are resilient, if they are able to preserve the adjustment of states’ behavior towards the preferences of others during exogenous shocks which incentivize states to determine their behavior (more) in accordance with their own preferences (see above).

The resilience of international institutions therefore depends on their ability to prepare for and to respond productively to external shocks. More precisely, resilience includes readiness and preparedness on the one hand, and response and adaptation on the other (Ponomarov & Holcomb 2009). At the level of adaptation, we may differentiate between static adaptation (i.e., featuring redundancy, supplements, and resources in order to deal with shocks without changing the inner structure of the system) and dynamic adaptation (i.e., reorganization, restructuring, abandoning of old routines and adopting of new routines). Static adaptation allows international institutions to keep operating in the same way but requires considerable resources. Dynamic adaptation requires a (sometimes painful) fundamental reorganization, but keeps the international institution better prepared for future exogenous shocks.

However, even if one accepts that states rationally design individual international institutions in a way that those institutions further their own goals (Koremenos et al. 2001), one has to concede that it is virtually impossible for them to design individual international institutions in ways that enable them to prove resilient during exogenous shocks. The reason is that exogenous shocks are, *first*, difficult to anticipate and, *second*, difficult to navigate because they are characterized by high levels of uncertainty. As a result, their considerable cognitive limitations prevent states from deliberately designing international institutions in ways that enable them to prove resilient during exogenous shocks.

Importantly, however, due to the proliferation of international institutions over the last decades, contemporary global governance does not consist of (rationally designed) stand-alone international institutions. Rather, contemporary global governance consists of sets of international institutions with overlapping competences which interact with one another on a permanent basis without being coordinated by a hierarchical instance (Alter & Raustiala 2019; Faude & Gehring 2017). This institutional configuration is described as “institutional complexity” by global governance researchers. It suggests that, when seeking to analyze the resilience of international institutions, we should not conceive of them as stand-alone entities and analyze the ability of, for example, the International Monetary Fund (IMF) to facilitate cooperation during a financial crisis. Rather, we should conceive of international institutions as being embedded in and affected by institutional complexity in their ability to facilitate cooperation during exogenous shocks. Randall Henning’s analysis of the Euro crises from the perspective of institutional complexity adopts such an approach, without invoking the concept of resilience, however (Henning 2017).

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<sup>1</sup> It was first used by the Canadian ecologist C.S. Holling (1973) to describe a characteristic of a complex system.

## Studying Resilience from the Perspective of Sociological Differentiation Theory

The preceding section established that, given the proliferation of international institutions over the past decades, any analysis of the resilience of contemporary international institutions should take their embeddedness into institutional complexity (as defined above) into account. Importantly, such an analysis needs to be informed by a general assessment of how the proliferation of international institutions over the past decades has affected the resilience of global governance. In other words, we need to get a sense of how growing levels of institutional complexity have affected the resilience of global governance on a general level before we can turn to more specific research questions.

Sociological differentiation theory offers a theoretical lens that enables us to develop a sense of how the proliferation of international institutions (that is, growing levels of institutional complexity) affect the resilience of global governance as defined above. At its core, sociological differentiation theory suggests that the growth of institutional complexity constitutes a process of institutional differentiation which is not a destructive, but a productive process (see Zürn & Faude 2013). It therefore contrasts starkly with prominent arguments put forward by IR researchers which suggest that institutional proliferation gradually weakens international commitments and undermines the general problem-solving capacity of global governance by letting states pursue their parochial interests through forum-shopping (Benvenisti & Downs, 2007; Drezner, 2013; Hale et al., 2013a).<sup>2</sup> Thomas Hale and his co-authors, to take a prominent example, forcefully describe institutional proliferation as giving rise to “dysfunctional fragmentation, reducing the ability of multilateral institutions to provide public goods” (Hale et al. 2013b: 228). According to them, growing levels of institutional complexity impede “effective cooperation instead of facilitating it” (Hale et al. 2013a: 16). By drawing on sociological differentiation theory, the remainder of this section develops a theoretical alternative to this position which refers to the problem-solving capacity of international institutions during exogenous shocks and, thus, to their resilience.

The concept of differentiation is inspired by cell division, that is, the division of a unit into several equal, similar, or dissimilar parts, whose interplay gives rise to higher-order-complexity (Nassehi 2004: 100). Sociological differentiation theory asks how and on the basis of which structuring principle different societal systems or subsystems are defined and distinguished from one another (see Zürn et al. 2013). Its core claim is that modernity is characterized by functional differentiation replacing earlier forms of differentiation.

According to Durkheim (1968: 257-264), it is the dynamic density of societal interactions that drives societies towards more complex forms of (functional) differentiation, that is, to a more complex specialization of tasks and division of labor (Buzan & Albert 2010: 5). Thus, an “idea of evolution” in which simple forms of societal organization are replaced by more complex forms is key (Buzan & Albert 2010: 5). Processes such as an increasingly developed “division of labor,” “specialization,” and “role differentiation,” all of which characterize modern society, can be seen as instances of functional differentiation.

The present paper restricts the application of sociological differentiation theory to the political realm of the international system which is described as “global governance.” Since the latter is characterized by high levels of institutional complexity, it is conceived of as carried out through functionally differentiated international institutions (Albert et al. 2013).

The central claim of sociological differentiation theory is that societal differentiation is a sensible response to increasing levels of societal complexity. Applied to global governance, this claim implies that the proliferation of international institutions (that is, rising levels of institutional complexity) constitutes

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<sup>2</sup> Please note that these contributions do not discuss how institutional complexity affects the *resilience* of global governance.

a functional response to the swelling tide of social problems (environment protection, financial stability etc.) that can be handled best at the international level (Held et al. 1999). More precisely, establishing international institutions becomes a functional answer to managing rising levels of societal denationalization and transnational interdependence across a multitude of policy areas (Zürn 1998). Against this backdrop, growing levels of institutional complexity in global governance can be interpreted as a process of institutional differentiation through which the political system of world society “internally reflects the differentiation of its environment” (Albert et al. 2013: 21). In short, increasing institutional differentiation is the corollary of a growing density of transboundary interactions.

By differentiating its institutional structure, global governance conforms to the “law of requisite variety”, which posits that dealing successfully with a task requires a system that is at least as complex as the task at hand (Ashby 1958). Put differently, as the societal environment of a given governance system becomes more complex, the governance system itself must respond by developing a more complex structure. By implication, the “law of requisite variety” suggests that the institutional differentiation of global governance is an effective means to cope with an increasingly complex social environment. Against this backdrop, this paper claims that the process of institutional proliferation described in this section has enhanced the resilience of global governance (as defined above) even though such an effect was not intended by the actors. Rather, their intention was to manage rising levels of societal denationalization and transboundary interactions on a general level. In that sense, enhanced resilience constitutes an unintended consequence of purposive state action (see Merton 1936).

A global governance system that features high levels of institutional differentiation (like the contemporary one) compares to a global governance system that is characterized by low levels of institutional differentiation (like the one in 1970) like a well-quipped toolbox with various sizes and types of hammers, screwdrivers, and pliers to the starter set you can buy from IKEA; the starter set will help you through most standard situations, but it might not have the tool you need in the case a water pipe bursts. And in such a do-it-yourself emergency situation, you would probably be glad if you knew that in case your screwdriver breaks, there is a spare one in the toolbox. The same two causal mechanisms –a diversity of tools and the availability of backup tools—explain how greater institutional differentiation creates a larger set of available governance actions and thereby increases the resilience of global governance.

*First*, institutional differentiation increases resilience because it accords states a choice between institutions offering different tools for crisis prevention and response. This choice allows states to tailor their responses to unpredictable situations and facilitates cooperative state action in the face of interest heterogeneity (Jupille et al. 2013). Since crises can arise from a variety of different risk factors, small institutions specialized on specific areas are more likely to be able to identify and address those risks than a large central institution. The same is true for responses to external shocks. They are inherently difficult to predict, and response strategies just as difficult to plan in advance (see above). A greater choice is then conducive to an effective crisis response. For instance, in the case of financial crises, states have recourse to an array of overlapping regional and global institutions (Henning 2017; Pauly 2008). As a result, there are international institutions that states can use to pool the financial risks of their banks, others help affected states to avoid bankruptcy, yet others provide states with financial regulation mechanisms to reduce market volatility (Mayntz 2015). When engaged in conflict prevention and/or management, states can similarly delegate individual tasks to different international institutions. For example, they may assign the military parts of a “post-conflict reconstruction operation” to NATO, which has a strong expertise on military interventions, and carry the civilian parts out through the Common Security and Defense Policy (CSDP) of the European Union (EU), which is particularly suited to execute civilian operations (Hofmann 2011). In sum, institutional differentiation increases the set of governance actions that are available to

prevent and manage crises. As a result, the challenges created by exogenous shocks can be mastered collectively by sets of international institutions with overlapping competences.

A greater choice of institutions does not only enable tailored responses by specialized institutions; it also makes it easier for states to coordinate international action despite interest heterogeneity (see Henning 2017). Institutional differentiation ensures that states with diverging interests do not have to agree to the crisis response mechanisms offered by a single institution. Instead, different groups of states can organize collective responses in separate forums (Jupille et al. 2013). When these responses complement one another, the result is likely to be more effective than if states with widely diverging interests had attempted to agree on a common response within a single institution.

*Second*, institutional differentiation increases the resilience of global governance because it makes different institutions performing the same or similar tasks available to state actors. A duplication of critical functions creates redundancy, which works as a fail-safe in case one institution fails to perform (Kelley 2009). Redundancy denotes that two or more international institutions are performing the same specific governance task, for instance regulating the level of CO<sup>2</sup>-emissions or distributing loans to countries (Keohane & Victor 2011).

Redundancy and backup options are of crucial importance for global governance because individual institutions tend to become deeply rigid over time. As Oran Young notes, with the passage of time, (international) institutions “become increasingly entrenched. Often, they fall prey to rigidification and suffer from what observers have called institutional arthritis (Olson 1982). The effect of this is to sap their resilience and to increase their vulnerability to various types of stress” (Young 2009, 378). In other words, “institutional arthritis” reduces the adaptive capacity of institutions, which includes their capacity to respond productively to exogenous shocks (see Hanrieder 2015). Rigid voting procedures and veto rights lead to the postponement of decisions that are needed to decrease the risk of shocks because they give small groups and even individual states the opportunity to “block” decision-making in situations of interest heterogeneity (see, for example, Collier 2006 on deadlock in the WTO). According to Young, institutions that “are rigid in the sense that they are difficult to amend formally or to adjust informally run the risk of falling prey to rapid changes” (Young 2009, 380). Even in the absence of heterogeneous interests, however, bureaucratic hurdles and the need to align a large number of states are likely to slow down coordination processes in large, centralized institutions. Against this backdrop, institutional differentiation gives “coalitions of the willing” the opportunity to circumvent dysfunctional institutions by shifting the coordination of their crisis prevention or response actions to institutions with overlapping competences (Jupille et al. 2013). These coalitions do not necessarily have to be composed of materially powerful countries. The theoretical logic applies as long as a “coalition of the willing” is able to act collectively in the absence of consensus within an established international institution. Taken together, these two causal factors lead us to expect that, other things being equal, its institutional differentiation has enhanced the resilience of global governance. A new institution performing a new task increases the diversity of actions available to avoid or respond to a crisis; a new institution performing a task already covered by an existing institution functions as backup in case the existing institution is blocked or becomes dysfunctional.

Importantly, the process of institutional differentiation was not driven by states’ intention to enhance the resilience of global governance. Thus, growing levels of institutional differentiation should not be conceived of as an investment in resilience. Rather, the “law of requisite variety” suggests that growing levels of institutional differentiation primarily respond to growing levels of societal denationalization and transnational interdependence (Ashby 1958; Held et al. 1999). The resilience of global governance has therefore been enhanced as an unintended consequence of purposive state action (see Merton 1936). It is well-known that some institutional configurations, such as markets, have self-generating mechanisms that serve to alleviate the impact of exogenous shocks in the absence of deliberate

initiatives on the part of actors to invest in resilience (Young 2009, 382). The present paper suggests that contemporary global governance is an institutional configuration which is in possession of these self-generating mechanisms.

Yet there is a valid intuition that the positive effect of increasing levels of institutional differentiation on the resilience of global governance must have some limits. Increasing the number of institutions also leads to greater transaction costs of communicating and reaching a common response. It increases the risk of different groups of states engaging in multiple, uncoordinated, redundant, and potentially incompatible actions in different fora. For example, it will be difficult to respond effectively to a financial crisis if one international institution puts in place spending packages to stimulate the economy, while another institution pushes austerity programs. While it is good to have several options available, it is important that those options are used in a coordinated fashion.

Thus, there is a trade-off between the greater diversity of tools and the availability of backup options, on the one hand, and, the greater need for coordination resulting from institutional differentiation, on the other hand. While acknowledging a trade-off between differentiation and coherence, I conjecture that, as long as the number of institutions remains within certain reasonable limits, greater differentiation is likely to have positive net effects on resilience in the medium- and long-term. It is by now well-known that, over time, institutional complexity tends to induce inter-institutional coherence among international institutions with overlapping competences (Abbott et al. 2015; Gehring & Faude 2014; Pratt 2018; Oberthür & Stokke 2011). Thus, a trade-off between a greater availability of actions and a greater risk from reduced coherence should exist only in the short term. In the medium and long term, I expect greater differentiation to have a positive net effect on resilience.

## Conclusion

This paper argues that the concept of resilience is a valuable addition to the toolbox of global governance scholars. At a time when global governance is characterized by multiple crises and turbulences, it facilitates an analysis of the ability of international institutions to handle exogenous shocks. Such an analysis has so far been hampered by the lack of a suitable theoretical concept.

To facilitate the development of a research agenda on the resilience of global governance, this paper applies central tenets of sociological differentiation theory to global governance. This theoretical approach offers a sense of how institutional complexity affects the resilience of global governance. It suggests that the process of institutional proliferation that has unfolded over the past decades has been enhancing the resilience of global governance, because it has allowed the “political system of world society” to mirror the increasing complexity of its social environment. Contemporary global governance therefore provides states with a more diverse set of governance tools and it makes backup governance tools available. This argument contrasts starkly with prominent arguments in the literature on the general impact of institutional complexity on the problem-solving capacity of international institutions (cf. Benvenisti & Downs 2007; Drezner 2013; Hale et al. 2013a&b). Importantly, however, states did not deliberately invest in resilience by increasing institutional complexity. Rather, the increased resilience of global governance is an unintended result of purposive state action (see Merton 1936).

The general insight that institutional differentiation has enhanced the resilience of global governance paves the way for a research agenda that includes more specific questions, for instance, which design features make individual institutions more prone to resilience-enhancing inter-institutional coordination and whether the additional choice options available as a result of institutional complexity led to a more balanced institutional reflection of member states’ interests.

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