Commentary

On Fragmentation, Differentiation, and Coordination

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The revival of research on international institutions in the spirit of “new institutionalism” has long conceptualized international regimes as separate entities, each covering a different issue area. This changed over the last fifteen years, as the focus shifted increasingly to the interplay of institutions with overlapping competences. This development reflects growing institutional density on the international level, making it increasingly difficult for international relations (IR) scholars to separate international institutions from one another for analytical purposes.

The burgeoning literature on inter-institutional phenomena can be differentiated with regard to the unit of analysis. The “interaction and interplay” strand of this research asks how and with what consequences two different institutions influence each other’s normative development and effectiveness in one particular case of institutional interaction.1 The literature on “regime complexes,” on the other hand, adopts a more holistic approach. It departs from the observation that various issue areas in international relations are co-governed by a network of overlapping and loosely coupled international institutions and asks how this affects the strategic calculations of state actors and, as a consequence, governance in the respective issue area.2 In line with the research on “regime complexes,” the concept of “fragmentation” is used by international legal scholars and IR scholars to point to the implications of institutional variety in the absence of hierarchical coordination.3 The contributions to this special issue represent valuable additions to these overlapping research strands.

This concluding commentary takes up conceptual issues raised in the introduction to the volume. In discussing its contributions, we put forward three points. First, we argue that the concept of fragmentation needs theoretical clarification that can be provided to some extent by sociological differentiation


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theory. In doing so, we also suggest a typology of different kinds of fragmentation which, in our view, addresses more directly institutional fragmentation than does the typology of fragmented governance architectures developed by Biermann and colleagues.4 Second, using differentiation theory arguably helps us get a better grasp of the different causes of fragmentation. While prominent theoretical arguments advance the claim that institutional fragmentation is a creation of powerful countries used to pursue parochial interests,5 differentiation theory argues that (functional) differentiation is a rational response to the increasing complexity of society. Explanations for institutional fragmentation therefore need to take into account both a distributional and a functional logic. Third, from this perspective fragmentation is by definition not necessarily a negative development. A high degree of institutional differentiation is by no means an anomaly; on the contrary, it is an important characteristic of all modernity that applies not only to international-level political institutions but also, for instance, to the institutions in the consolidated democracies of the Western world. If we take this as our point of departure, then it is not fragmentation per se, but rather the coordination (or lack of it) of fragmented or differentiated institutions that becomes the most important issue. Only the absence of coordination may lead to additional undesirable outcomes such as exclusion or forum shopping, not the mere existence of institutional fragmentation. This insight should inform both the analysis of consequences and the discussion of response options.

Even though this special issue restricts the term fragmentation to one specific issue area,6 a focus on coordination also holds potential for analyzing governance collisions resulting from international institutions situated in different issue areas (for example, international economic institutions versus international environmental institutions). Since the burgeoning literature on global constitutionalism is particularly interested in this overarching topic,7 fruitful inter-disciplinary dialogue with global constitutionalists becomes a real possibility if the emerging IR literature on institutional fragmentation broadens its research focus beyond institutional fragmentation in single issue areas.

On the Concept of Fragmentation

As the International Law Commission points out, the term fragmentation refers to two phenomena and their consequences.8 First, it points to the lack of a “general legislative body” on the international level. Second, it concerns the evolution of institution-specific secondary norms to revise international agreements. Against this backdrop, Zelli and van Asselt’s introduction follows a broad

6. Zelli and van Asselt article, this issue.
definition of the term fragmentation; they state that many policy domains are marked by a patchwork of international institutions whose institutional forms, constituencies, spatial scope and subject matter differ. By labelling this institutional variety as fragmentation, one is tempted to see it as the result of a process whereby something that had been a unit or a whole disintegrates into bits and pieces. A glance at Wictionary is telling: fragmentation is described as “a process by which fragments of an exploding bomb scatter.” More revealing still is the description as it relates to a digital age phenomenon, namely, “the breaking up and dispersal of a file into non-contiguous areas of a disk.” To be sure, Zelli and van Asselt do not consider this fragmentation as something necessarily negative; they simply want to give an explicit and value-free account of the process. However, the problem with the bomb and file-dispersal metaphors is not necessarily one of normativity: rather it seems to be one of ontology. An integrated institutional whole that may disintegrate never existed, of course, especially not in international politics. Neither was there ever an integrated global environmental regime or for that matter a world state, nor was there ever the political will of the nation states to create such an overarching and encompassing system. The notion of fragmentation has a Kelsenian world of a closed system of law that can be traced back to one Grundnorm or “basic norm” as conceptual background. The term fragmentation thus seems to be built on a kind of Hegelian ontology.

A similar problem is known in differentiation theory, which conceptualizes modern society as a process of functional differentiation. Differentiation theory, in general, asks how, and on the basis of which structuring principle, different societal systems or subsystems are defined and distinguished from one another. The core statement of sociological differentiation theory is that modernity is characterized by functional differentiation replacing other forms of differentiation. Functional differentiation has always been at the core of sociological thought about the emergence and evolution of modern society. In sociology, the movement from Gemeinschaft to Gesellschaft is almost constitutively associated with functional differentiation. The forms and pathways of what, in various guises, appears as the “division of labor,” “specialization,” “role differentiation,” etc., point to the recognition that some kind of functional differentiation is a defining feature of modern society.

Some of the foremost sociological thinkers saw functional differentiation as a process of community decomposition, whereby the stability of a pre-existing cultural entity is compromised by a development that breaks it up into ever more specialized units and articulated roles. If society is seen as a community and shared culture (Gemeinschaft), then functional differentiation indeed appears to be corrosive. For instance, Tönnies and Gellner were concerned about

9. Zelli and van Asselt article, this issue.
11. The following draws from Zürn et al. forthcoming.
the loss of Gemeinschaft in the transition to modernity and Gesellschaft. Others, most notably Weber and later Luhmann, saw functional differentiation as a process of emergence. In other words, it is the process of functional differentiation itself—the emergence of recognizably different spheres of politics, law, economics, religion etc.—which accounts for the existence of modern society as a “social whole” in the first place. If society is seen as Gesellschaft, then functional differentiation is an integral part of it, not antagonistic to it.

Whereas differentiation concerns the way in which societal sectors such as economics and politics are related to one another, fragmentation focuses on institutions—local, national, and international—and relationships between them. It is nevertheless possible and would seem to be a useful exercise to conceptualize the observed variety of international institutions in a way analogous to the conceptualization of differentiation theory. On this view, fragmentation or institutional differentiation is not the dissolution or decomposition of a pre-existing world polity or order, but rather an indicator for the emergence of a fragmented or differentiated world polity or order. Fragmentation or institutional differentiation is therefore not a destructive, but a productive process. It will inevitably create new challenges for global governance. Most important among these are the tasks and associated problems of coordinating individual governance efforts by the various institutions of the emerging world polity (see below).

Differentiation theory distinguishes at least three principles for structuring a whole (i.e., principles of differentiation): segmentary differentiation, wherein every social subsystem is equal and functionally similar to every other; stratificatory differentiation, wherein some persons or groups rise above or fall below others, creating a layered or hierarchical social order; and functional differentiation, wherein the subsystems are defined by the coherence of particular types of activity and their distinction from other types of activity, and difference does not stem merely from rank. Applying this distinction to institutional fragmentation, one may speak of three types: segmentary fragmentation, pointing to institutions that perform the same tasks in different territories (e.g., a set of regional integration projects that seek to establish regional polities in discrete parts of the world); stratificatory fragmentation, pointing to a hierarchical relationship between institutions, each of which is nevertheless geared to the same issue (e.g., the framework conventions and substantive protocols of multilateral environmental agreements); and functional fragmentation, pointing to a non-hierarchical division of labour between institutions (e.g., international economic institutions versus international environmental institutions). Young, to

12. Tönnies 1887; Gellner 1988, 61.
15. In the remainder of this article, we use institutional differentiation and fragmentation interchangeably.
take one example, obviously has functional fragmentation in mind when he writes that problems of fragmentation arise “from the segmentation of governance systems along sectoral lines.”

Similarly, different forms of fragmentation may exist in parallel. For instance, if we conceive of a regime complex as “an array of partially overlapping [. . .] institutions governing a particular issue area,” that regime complex may exhibit features of both functional and stratificatory fragmentation. Finally, by referring to how one international institution may learn from another unrelated institution, the notion of institutional interaction is an example of segmentary differentiation. In sum, we may draw on differentiation theory not only to conceptualize institutional fragmentation, but also to theoretically grasp the reactions of overlapping institutions to the detrimental implications of incompatible norms on their effectiveness. Apart from that, bringing differentiation theory to bear on institutional fragmentation on the international level allows us to “take stock” of fragmentation from a different angle.

On the Causes of Fragmentation

Drawing from differentiation theory to analyze institutional fragmentation on the international level may also be a useful approach to determining its causes. Differentiation, especially the functional type, is seen as a functional response to the increasing complexity of society. Similarly, institutional fragmentation can be seen as a functional response to the swelling tide of problems that can be handled best on the international level. Because societal denationalization and transnational interdependence are growing across a multitude of policy areas, international institutions become the functional answer to managing this interdependence. Humrich’s contribution to this special issue is a case in point. It shows that the institutionally fragmented governance arrangements with regard to Arctic offshore oil activities can be traced back to a demand for addressing different, yet interrelated, problems (oil and gas exploration; increasing maritime traffic; detrimental effects on the environment), which cannot be solved unilaterally by any of the negatively affected states. The fragmentation of the international legal system may be thought of as the aggregate outcome of this process. Such a line of thinking emphasizes especially that fragmentation is not a malady or a problem, but rather a constitutive part of an emerging world polity.

Seeing institutional differentiation or fragmentation as a functional response to increasing complexity contrasts starkly with existing theoretical arguments on fragmentation. It has often been claimed that fragmentation is the

17. O. Young 2011, 2.
20. Humrich article, this issue.
result of causes other than functionality. Three strands of thinking are of importance here.

- Benvenisti and Downs argue that the degree of institutional fragmentation on the international level is a feature created deliberately by the most powerful states in the international system, especially the United States.\(^{21}\) The parallel presence of a multitude of institutional sites requires a level of resources and expertise that can be provided only by rich and large states. In this view, fragmentation does not serve a collective purpose, but rather is intended to appease the distributional preferences of the most powerful states.

- Meyer and colleagues see the diffusion of certain practices, including functional differentiation, not as a response to functional needs, but as worldwide implementation of the “Western rationality” script.\(^{22}\) In this perspective, differentiation spreads for two reasons. Most importantly, it is the organizing principle of functional differentiation associated with modernity and thus gets adopted independent of its functional value. Moreover, the spread of regional integration agreements around the world can be seen as a symbolic act decoupled from practices on the ground and independent of the functions that such a regional integration scheme can provide. The rise of regional integration agreements outside Europe in response to the adoption of the Single European Act as another form of institutional diffusion leads to fragmentation of the international trade regime. This created potential forum shopping opportunities for those states that are members of both the WTO and of a regional agreement, for example with regard to dispute settlement.

- The causal mechanisms identified by historical institutionalism have been recently applied to the study of international institutions.\(^{23}\) Hanrieder explains the fragmentation in the development of the World Health Organization as a result of a power position bestowed on the regional offices in the original setup of the organization, which was used to extend their power.\(^{24}\)

These three explanations for fragmentation, as well as the functionalist argument suggested here, can be applied to the international level. In doing so, it becomes clear that different types and forms of fragmentation must resort to different explanations.

Van de Graaf’s contribution shows that a distributive conflict among major players in global energy governance has led to the creation of a countervail-

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ing institution in the issue area and therefore to institutional differentiation based on functional logic.\(^{25}\) It follows that the preferences of the most powerful actors in the international system are not necessarily converging, as Benvenisti and Downs seem to assume.\(^{26}\) This empirical finding qualifies theoretical claims that the origins of institutional fragmentation are found solely in power asymmetries, and that institutional fragmentation reinforces these power asymmetries. On the other hand, Karlsson-Vinkhuyzen and McGee’s contribution shows that powerful countries created minilateral forums in order to reach a common position on climate policy.\(^{27}\) In doing so, these states improved their bargaining position and influenced the multilateral UNFCCC process to their advantage. Hence, we may conclude that it is rewarding to think of different factors for the origins of institutional fragmentation on the international level. Institutional differentiation as a reaction to growing complexity promises to be an especially important factor.\(^{28}\)

**On the Consequences of Fragmentation**

Several contributions to this special issue refer to the consequences of (increased) fragmentation for (certain groups of) actors and institutions. First, Orsini finds that in the areas of sustainable forest management and access to genetic resources, non-state actors in multiple forums are in a better position to influence specific negotiations and the evolution of the fragmented governance architecture, because they can resort to forum shopping, forum shifting, and forum linking to pursue their interests.\(^{29}\) Second, Van de Graaf points to the fact that state actors able to collaborate outside an established institutional framework may do so, creating a countervailing institution.\(^{30}\) Third, Karlsson-Vinkhuyzen and McGee show that the minilateral forums created in international climate governance suffer from severe legitimacy deficits, pointing to the possibility that the fragmentation of global governance architectures may create additional legitimacy problems.\(^{31}\)

These findings highlight the general point that fragmentation has several consequences. Most generally, the absence of coordinating mechanisms implies that state actors may exploit the institutional fragmentation of a certain policy domain to pursue their parochial interests through forum shopping and regime shifting.\(^{32}\) Institutional fragmentation creates new opportunities for strategic action and becomes a matter of politics. These new opportunities are successfully

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25. Van de Graaf article, this issue.
27. Karlsson-Vinkhuyzen and McGee article, this issue.
29. Orsini article, this issue.
30. Van de Graaf article, this issue.
31. Karlsson-Vinkhuyzen and McGee article, this issue.
32. With regard to public-health related intellectual property rights, see Helfer 2004; Helfer 2009.
exploited not only by the most powerful countries in the international system but also by the less powerful countries of the Global South, as suggested by Helfer.\textsuperscript{33} As such, we should be cautious of the claim that institutional fragmentation privileges powerful states.\textsuperscript{34} Since it is self-evident that powerful states are generally in a better position to reach their goals on the international level than are weaker ones, the decisive question is whether institutional fragmentation itself systematically privileges the first group of actors over the second. More research is needed, but these empirical findings raise doubts that institutional fragmentation makes the powerful states even more powerful.

This is not to deny that forum shopping raises potential problems for institutionalized cooperation on the international level. For example, forum shopping may induce a race to the bottom if states decide to implement only the softest obligations,\textsuperscript{35} and it may lead to contradictory decisions of varying international dispute settlement panels on the same legal matter if states “go shopping” among the dispute settlement mechanisms of different international institutions.\textsuperscript{36} In general, to repeat the point of Karlsson-Vinkhuyzen and McGee, it may undermine the legitimacy of an institution.

Nevertheless, fragmentation is not necessarily a negative development. If the proliferation of international institutions is understood as constitutive for the emergence of a world polity, it can be seen largely as a functional response to the diverse governance problems arising in a globalized world. A certain degree of fragmentation or institutional differentiation is therefore necessary and expected in modern world society.

One might argue that the degree of fragmentation, not fragmentation per se, causes problems. However, we lack any measure of or criteria for determining just how much institutional fragmentation is good and at what point some critical threshold is exceeded and it becomes negative. Is the international level really institutionally more fragmented than, say, any EU member state? Do we really have more international environmental institutions than nation-level agencies? Any attempt to argue that a given extent of fragmentation is good/functional or bad/dysfunctional requires a kind of intuitive comparative threshold that can effectively substitute for the apparently missing theoretically derived benchmark.

It does not appear to be possible, then, to make any theoretically grounded claims about healthy or unhealthy levels of institutional fragmentation. In fact, when it comes to the consequences of institutional differentiation, the decisive question takes another track: namely, can fragmented institutions be coordinated effectively?

\textsuperscript{33} Helfer 2009, 41.
\textsuperscript{34} Gehring and Faude 2013, 126.
\textsuperscript{35} Biermann et al. 2009.
\textsuperscript{36} Faude 2011.
On the Responses to Fragmentation

To the extent that fragmented institutions overlap and collide, coordination is needed both within and across issue areas. If differentiated institutions have some area of overlapping competence, they create a demand for “second-order” institutional differentiation, i.e., institutions that can coordinate fragmentation. Therefore, as Oberthür’s and Pozarowska’s article, this issue, makes clear, the most important response to fragmentation consists of efforts by state actors and international institutions to manage it in order to curtail its negative consequences. In the trade–environment overlap, the institutional response has been complementary processes of further institutional specialization resulting in a differentiated governance system for the overlapping area based on an inter-institutional division of labor.

The contributions in this special issue focus exclusively on phenomena related to a particular issue area of international governance. As a result, we might miss a considerable part of the story if we do not link fragmentation research to phenomena occurring across issue areas. Regulations in one issue area almost inevitably have impacts in others. For example, if international institutions and national governments succeed in generating economic growth, they ceteris paribus also increase carbon dioxide emissions. If the protection of health-related intellectual property rights is strengthened by international trade institutions, this ceteris paribus leads to increased drug prices and therefore results in the decreasing availability of essential medicines in the poorest parts of the world and, as a consequence of that, severe public health problems. Therefore, coordination among different policy domains is at least as important as coordination within a single policy domain.

Usually, we distinguish between three archetypes of coordination: (1) authoritative coordination through a hierarchical institution; (2) coordination through cooperation in loosely coupled networks; and (3) decentralized coordination through market competition. The typology of fragmentation of governance architectures developed by Biermann and colleagues can also be seen as a typology for coordination of fragmented institutions. Each type of governance architecture corresponds to one of the three classic models of coordination: synergistic fragmentation contains a core (hierarchical) institution that integrates all other institutions of the fragmented governance architecture; cooperative fragmentation contains loosely coupled institutions that interact cooperatively; conflictive fragmentation resembles a market-like situation, in which varying institutions offer different kinds of regulations to states.

Whether any given mode of coordination is superior to any other is a question likely answerable only through context-specific propositions. Market

37. Gehring 2011; Gehring and Faude 2012.
theorists argue that, when it comes to production and consumption, the competitive market mechanism is the most efficient way to coordinate; state theorists argue that, when it comes to the provision of security, it is imperative to have a monopolist—the state—that exercises final authority on crucial matters.

A major difference between the national and international levels is the relative weakness of hierarchical modes of coordination at the international level. In order to come to grips with institutional fragmentation, we must rely first and foremost on horizontal mechanisms of coordination. However, these emergent processes, in the absence of a democratically legitimated final authority, create additional legitimacy problems for global governance. It would be normatively desirable to debate and decide collectively, for example, on the question of whether to prioritize economic growth or environmental protection on the global level.

On the other hand, horizontal processes of coordination have the advantage of being more flexible and adaptive in the face of changing circumstances. One can therefore argue that although a fragmented governance structure like the emerging world polity displays a number of flaws and entails some perils, it also has invaluable advantages for governance in a widely diverse world society. When areas of global governance traditionally prone to inter-institutional conflict, like the trade–environment overlap, evolve into a functionally differentiated governance system based on an inter-institutional division of labor, institutional fragmentation generates the problem of coordination and simultaneously creates the opportunity structure for its resolution: a world polity that is sufficiently coordinated to prevent enduring inter-institutional conflict and, at the same time, pluralist enough to respect the diverging governance tasks on the international level and the pronounced differences in world society. The challenge ahead is therefore not necessarily to reverse fragmentation, but to gradually develop and expand adequate coordination mechanisms that reflect the deeply pluralist structure of world society, instilling them with sufficient legitimacy to make them globally acceptable.

References


42. Krisch 2010.
43. Gehring and Faude 2012; cf. Oberthür and Pożarowska article, this issue.


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