

Adaptive Peacebuilding: Leveraging the Context-specific and Participatory Dimensions of Self-sustainable Peace

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INTRODUCTION

In the context of the poor performance of many existing approaches to peacebuilding, the aim of this volume is to explore alternatives that may be potentially more effective. One alternative that has emerged prominently in the critical peacebuilding literature—as discussed in the Introduction to this book—is context-specific approaches to peacebuilding. This volume provides several contemporary cases of protracted, recurring, and complex armed conflicts to identify, compare, and analyze examples of

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context-specific approaches with more traditional deterministic approaches. The aim is to better understand if context-specific approaches have any performance advantages over deterministic approaches, and if so, what those are.

In short, context-specific peacebuilding is based on local or national cultural, historic, and political understanding of what constitutes peace and bottom-up or home-grown approaches to achieving and sustaining that peace. The context determines the ideas or content, priorities, and values, and the peacebuilding process is aimed at facilitating a participatory self-sustaining peace with local and national ownership and leadership. Deterministic peacebuilding is based on international or external ideas of what constitutes peace, external efforts to achieve peace, and external standards or values that are used to assess whether peace has been attained. It is thus seen as top-down, where the content and end-state are predetermined by external actors, and peacebuilding is about facilitating the process of adopting and integrating these external values into local and national social institutions. One of the context-specific approaches that has stimulated this discussion is Adaptive Peacebuilding. This chapter explains the adaptive approach and related concepts, as well as its theoretical foundation in complexity theory.

In the process of identifying and comparing context-specific and deterministic approaches in the case studies covered by this volume, the authors were asked to identify local, national, or international peacebuilding actors that have made adaptations to the way in which they approached and practiced peacebuilding over the periods covered by those case studies. The aim was to identify, discuss, and analyze examples that can help us improve our understanding of what kind of adaptations have been made, that is, how was the approach to peacebuilding different as a result of these adaptations. We also want to understand why peacebuilders make these adaptations, that is, what problems or challenges did they experience that stimulated them to adapt. Importantly, we also wanted to understand what effect these adaptations have had? Have the effects or outcomes of the peacebuilding initiatives improved as a result of the adaptations? These questions were aimed at helping the authors to identify and analyze examples of adaptive approaches to context-specific peacebuilding. The next section of this chapter introduces the concept of Adaptive Peacebuilding and explains its main principles and functions.

Adaptive Peacebuilding

As discussed in the Introduction, peacebuilding is about influencing the behavior of social systems that have been or are at risk of being affected by violent conflict. Peacebuilding attempts to assist such societies to prevent and mitigate these risks. For peace to be self-sustainable, a society needs to have sufficiently strong national and local social institutions to identify, channel, and manage disputes peacefully. A society successfully sustains its own peace when its social institutions are able to ensure that political, social, and economic competition is managed peacefully and that no significant social or political groups use violence to pursue their interests.

If a society at any of these levels is vulnerable to violent conflict, it means that the social institutions that govern its politics, security, justice, and economy lack resilience. Resilience refers to the capacity of social institutions to adapt to sustain their functions, structures, and identity under stress. Resilience is strengthened, and the extent of the vulnerability is gradually reduced as social institutions develop the resilience necessary to cope with the shocks and challenges they are likely to be exposed to (de Coning 2016).

Peacebuilding has a very specific objective, namely, to help social systems prevent violent conflict by assisting them with developing resilient social institutions that can manage and resolve emerging conflicts before they turn violent. Peacebuilding is thus essentially about stimulating processes in a society that enable resilient social institutions to develop that can adequately manage internal and external stressors and shocks. However, there is an inherent tension in the act of promoting a process of self-sustainability from outside the society or community in question. Too much external interference will cause harm and undermine selforganization. Every time an external peacebuilder intervenes to solve a perceived problem, they interrupt the internal feedback process and thus deny the society or community the ability to develop the processes necessary to self-identify and respond to those problems. The result is a missed opportunity to stimulate the development of self-organization and resilience. Instead, such external interruptions build dependency (de Coning **2018**).

National and local social institutions develop resilience through trial and error over generations. Too much filtering and cushioning slows down and inhibits these processes. Understanding this tension—and the constraints it poses—helps us realize why many deterministic peacebuilding initiatives have made the mistake of interfering so much that they ended up undermining the ability of societies to self-organize, and contributed to perpetuating the conflict. As a result, this kind of intervention sustains the vulnerability of the society to recurring violence and adds to the protracted nature of the conflict.

The Adaptive Peacebuilding approach provides a methodology for navigating this dilemma. In contrast with top-down or deterministic approaches to peacebuilding, Adaptive Peacebuilding is a process where local, national, and international peacebuilders, together with the societies, communities, and people affected by the conflict, actively engage in a structured collaborative process to sustain peace and resolve conflicts by employing an inductive and iterative process of learning and adaptation (de Coning 2018). Adaptive Peacebuilding is a normative and functional approach to peace operations that is aimed at navigating the complexity inherent in trying to nudge societal change processes toward sustaining peace, without causing harm (de Coning 2020).

The core characteristics of the Adaptive Peacebuilding approach can be summarized in the following six principles:

- 1. The initiatives taken to influence the sustainability of a specific peace process have to be context- and time-specific, and thus emergent from a collaborative process with the people affected by the conflict;
- 2. Adaptive Peacebuilding is a goal-orientated and problem-solving approach, so it is important to analyze and identify, together with the affected people, what the problems are and what the initiatives for change should aim to achieve;
- 3. Based on the analysis and intended objectives, multiple initiatives are simultaneously undertaken, assessed, and adapted in a continuous and iterative purposeful learning process;
- 4. One element of the adaptive approach is variety; as the outcome is uncertain, one must experiment with a variety of initiatives across a spectrum of probabilities, and the theory of change that informs each alternative needs to be clearly articulated;
- 5. Another element of the adaptive approach is selection; one has to actively monitor and evaluate the effects of the initiatives by paying close attention to feedback. Adaptive Peacebuilding requires an active participatory decision-making process that abandons those initiatives that perform poorly or have negative side effects, while those that show more promise can be further adapted to introduce

more variety or can be scaled up to have greater impact. At a more strategic level, this implies refining problem analysis, reviewing theories of change, and adapting strategic planning in an ongoing process of institutional learning;

6. Lastly, Adaptive Peacebuilding is an iterative process. It has to be repeated continuously because social-ecological systems are highly dynamic and will continuously evolve. Any effect achieved is temporary and subject to new dynamics.

In the Adaptive Peacebuilding approach, the core activity of peacebuilding is people-centered process facilitation. In other words, it is crucial, as captured in the first principle of the Adaptive Peacebuilding approach, that the societies, communities, and people that are intended to benefit from a peacebuilding initiative are fully involved in all aspects of that initiative. The specific arrangements will differ depending on the context, but the principle should be that no decisions are taken about a particular initiative without sufficient participation of the affected community or society.

Sufficiency here implies that the community should be represented in such a way that the diversity and variety of their interests, needs, and concerns informs every step of the adaptative cycle. In other words, as highlighted in the second principle of the Adaptive Peacebuilding approach, a collaborative approach implies that the affected community should be sufficiently represented in the processes that analyze the problem and determine the aims and objectives of the initiative, as well as in all choices related to the analysis, assessment, planning, monitoring of effects, evaluation, and selection processes (Donais 2012).

While international, national, or local peacebuilders can influence complex social systems by enabling and stimulating the processes that enable resilience and inclusiveness to emerge, the prominent role of selforganization in complex systems suggests that it is important that the affected societies and communities have the space and agency to drive their own processes. This is why local adaptation processes are ultimately the critical element when political settlements are seeking to become selfsustaining (Mac Ginty 2011).

The Adaptive Peacebuilding approach thus requires a commitment by peacebuilders to engage in a structured and purposeful learning process, together with the society, community, and people that have been affected by conflict. This commitment to a collaborative approach comes at a cost. Peacebuilders need to invest in the capabilities necessary to enable and facilitate such a collective learning process; plan to take the time necessary to engage with communities and other stakeholders; and invest resources in monitoring, evaluation, and learning together with communities, and they need to do all of this in an iterative, continuous, and open-ended process (Connolly and Mincieli 2019). If peacebuilders, together with the affected people, make this investment in time, effort, resources, and commitment, the benefit they may derive is a higher likelihood that the process may generate the resilient local social institutions necessary to ensure self-sustainable peace.

Complex systems cope with challenges posed by changes in the environment by co-evolving together with the environment in a never-ending process of adaptation. This iterative adaptive process, captured in the third, fourth, and fifth principles of the Adaptive Peacebuilding approach, utilizes experimentation and feedback to generate knowledge about the environment. The two key factors are variation (the fourth principle) and selection (the fifth principle). There needs to be variation, in other words a variety of multiple parallel initiatives, and there needs to be a conscious and pro-active selection process that replicates and multiplies effective initiatives and discontinues those that do not have the desired effect.

The core analysis-planning-implementation-evaluation project cycle is already well established in most peacebuilding and development initiatives. However, most peacebuilding initiatives are not good at generating sufficient variation. They are also notoriously bad at selection based on effects or results, and they are especially poor at identifying and abandoning underperforming initiatives. To remedy these shortcomings, the Adaptive Peacebuilding approach starts with an assessment of the problem and the objectives that a specific initiative wishes to achieve (second principle). The second step is to generate and implement a number of different initiatives that it can experiment with (fourth principle). It is important that the theories of change behind each option are clearly understood, so that their effects can be assessed and so that lessons can be drawn from the experiment with that particular theory of change. The third step is a structured selection process based on a proactive monitoring and evaluation system (the fifth principle) that helps to inform a decision-making process regarding which initiatives should be abandoned and which should be further developed. This process is repeated iteratively (the sixth principle), and over time, it stimulates institutional learning and resilience.

On the one hand, we can say Adaptive Peacebuilding introduces a new specific method and approach to peacebuilding in the form of the specific principles and methods outlined above. On the other hand, it can be argued that most peacebuilding contexts already employ adaptive approaches. Most peacebuilders and affected people involved in conflict management and resolution-as the various chapters in this volume show—are learning from their experiences and are continuously adapting their approaches based on their assessments of what works and what doesn't. Therefore, we do not always have to follow the specific Adaptive Peacebuilding method outlined above to be adaptive. Adaptive approaches to peacebuilding can be understood to include all approaches and practices that experiment with inductive, collaborative, and iterative approaches to peacebuilding with the aim to enhance effectiveness and selfsustainability. The shared identity of these adaptive approaches lies in the extent to which they fundamentally differ from the determined-designed approach, where the process, roles, and intended outcome of the peacebuilding initiatives are predetermined.

Adaptive Peacebuilding recognizes the role of entropy in any system and cultivates an awareness that those initiatives that appear to be effective today will not continue to be so indefinitely. Any initiative will benefit some, but not necessarily everyone. Some, often influential and powerful actors, may derive benefit from violent conflict. They may gain power and prestige, or material benefits, or both from it. Those that don't gain from the efforts to foster peace are likely to adapt and develop strategies to either undermine such initiatives or position themselves to benefit from them. They are often resilient in their own right as they may occupy positions of influence and power, and they may have accumulated or have access to resources. This usually also means they are able to attract and maintain a network of supporters, and they have the means to influence others through intimidation or reward. Even successful programs need to be monitored for signals that may indicate that an initiative is no longer having the desired effect or is starting to generate negative side effects. One must thus monitor not only for intended results but also for unintended consequences and be ready to take steps to deal with such emerging negative or perverse effects (Aoi et al. 2007).

The Adaptive Peacebuilding approach is scalable at all levels; the same basic method can be applied to programmatic initiatives at the local level or to strategic frameworks or campaigns at the national, regional, or international levels. The feedback generated by various initiatives at different levels should be shared and modulated as widely as possible throughout the system, so that as broad a spectrum of people or organizations as possible involved in these initiatives can self-adjust and reorganize themselves and their initiatives on the basis of the information generated. The next section discusses complexity theory and explains how it serves as a theoretical foundation for Adaptive Peacebuilding.

COMPLEXITY

It has become common place to argue that peacebuilding is a complex undertaking, or that contemporary conflict scenarios are complex. Beyond this common-sense use of the term, there is a serious academic project underway across multiple disciplines, to study and theorize complexity.¹ Complexity theory, applied to the social world, offers insights about social behavior and relations that are relevant for peacebuilding (Brusset et al. 2016).

All social systems are complex systems. Peacebuilding is about influencing the behavior of social systems that have been affected by conflict. Insights from complexity theory about influencing the behavior of complex systems, and how such systems respond to pressure, should thus be very instructive for peacebuilding (Meadows 1999). Complexity theory explains that a complex system is a particular type of holistic system that has the ability to adapt, and that demonstrates emergent properties, including self-organizing behavior. Such systems emerge and are maintained, as a result of the dynamic and nonlinear interactions of their elements, based on the information available to them locally, as a result of their interaction with their environment, as well as from the modulated feedback they receive from the other elements in the system (Cilliers 1998, 3; de Coning 2016, 168).

Three of these core characteristics, namely holistic systems, nonlinearity, and self-organization, are unpacked in more detail in the next section. In the process, a number of related concepts that form the basis of our understanding of complexity, including emergence, adaptation, and feedback, are also explored.

¹See, for instance: Luhmann (1990); Prigogine (1996); and Mitchell (2009).

Holistic Systems

A system can be defined in a very general sense as a collection of interacting elements that together produce, by virtue of their interactions, some form of system-wide behavior (Mitchell 2009). In other words, a system is a community of elements that, as a result of their interconnections, form a whole. In complex systems, the interaction is dynamic, that is to say, a complex system changes with time (Cilliers 1998). Complexity is not, however, interested as much in the agents as nodes in the system, as in the patterns of their interconnections and how that generates meaning or purpose in the system as a whole (Cilliers 1998). In other words, complexity is interested in how the elements interact and how this interaction develops into the system as a whole having new capacities that did not exist within the individual elements.

In complex systems, the whole has properties that cannot be found in the constituent elements or in the sum of their properties. In social systems, for instance, the society as a whole develops and maintains norms and identities that serve the common needs of the community. In some ways, this results in suppressing some of the interests and needs of the individual and of special interest groups in the interest of the general wellbeing and survival of the society as whole. Morin points out that in social systems not only is the whole more than its elements because new qualities or properties emerge due to the organization of the elements in the whole, but the whole can also be less than the sum of its parts because "a certain number of qualities and properties present in the parts can be inhibited by the organization as a whole" (Morin 2005, 11).

The concepts 'social' and 'society' conjure up images of systems made up of people that share a common sociocultural, national, or civic bond. When studying people in the context of them being part of a society, as opposed to studying them as individuals, a different side of their being including aspects related to their role in society as well as aspects related to the restrictions that conforming to the society places on them—is revealed. These are aspects of their being that could not be revealed by studying them in isolation from their place in a social system. By studying the society as a whole made up by the patterns of activity of individuals and the various networks and subsystems, such as family, clan, and tribe, that develop out of these patterns, we reveal insights into the way individuals derive meaning from their roles in a community and how the interactions between these individual roles shape, sustain, and transform both the society as a whole and the individuals that make up that society. These are insights that could never be identified by studying only the individual.

In moving from the individual to the community and society, we come across organization. Complex systems cannot do without hierarchy and structure, but in complex systems hierarchy is not hard-wired or externally determined and controlled; the hierarchy of a complex system is emergent and self-organized and thus changes with the system over time as it adapts and evolves in response to its environment (Cilliers 2001). The vitality of the system depends on its ability to transform itself, including its structure and hierarchy. Hierarchy is a typical characteristic of complex adaptive systems, but it is important to note that the hierarchies themselves exhibit complex adaptive characteristics (Chapman 2002).

The last aspect of a whole-of-systems approach that should be discussed is the role of boundaries and borders in complex systems. Complex systems are open systems, and this implies that interactions take place across their boundaries (Cilliers 2002). These interactions take place with other systems and the environment, for instance, in social systems there is a flow of information, and between a particular social system and its environment through its boundaries. Systems consist of interrelated subsystems, and some boundaries can thus fall within larger systems or share borders with them (Chapman 2002). Not all subsystems are neighbors physically; some are virtually linked—in social systems agents far away from each other may link up via social media, and collaborate, coordinate and otherwise influence each other's systems, and in this way interpenetrate such systems. We will return to the issue of boundaries and borders when we consider how to distinguish between internal or local and external or international actors in the peacebuilding context.

Complexity thus builds on and is grounded in systems thinking. However, it is concerned with a specific type of system, namely complex adaptive systems, and to gain more understanding of that differentiation we turn to another set of important properties of complexity, namely nonlinearity and self-organization.

Nonlinearity

In the previous section, a whole-of-systems perspective was introduced, and it was explained that complexity occurs in the patterns of interconnections among the elements, and how this dynamic interaction generates properties beyond those that exist in its constituent parts. In this section, a second characteristic of complexity is introduced, namely that in complex systems the causal patterns of these interactions are nonlinear—the outputs are not proportional to the inputs (Hendrick 2009).Jervis (1997) points out that we often intuitively expect linear relationships. For example, if a little foreign aid slightly increases economic growth, it is expected that more aid should produce greater growth. However, complex systems often display behavior that cannot be understood by extrapolating from the units or their relations, and many of the results of actions are unintended (Jervis 1997). Thus, an important characteristic of complex systems is that nonlinear variables may have a disproportionate impact at one end of its range (Byrne 1998). Nonlinearity thus refers to behaviors in which the relationships between variables in a system are dynamic and disproportionate (Kiel 1996).

The first characteristic of nonlinearity is that the outputs it generates are not proportionate to their input; that is, they are asymmetrical. In complex social systems, we often talk of indirect or unintended consequences. For instance, one may organize a training course with the aim of imparting a skill, but then it turns out that the most important benefit that the participants gain from the training is not necessarily the skill, but the teambuilding and social networking opportunities. The second aspect of nonlinearity is that nonlinear systems do not follow a predetermined, and thus predictable, cause-and-effect path. Nor can such a path, once traced in hindsight, be replicated to generate the same effect. A third aspect of nonlinearity is that it cannot be reduced to something simpler, like a set of laws or rules that can help us to predict the behavior of the system. Cilliers (1998, 4) explains that "a large system of linear elements can usually be collapsed into an equivalent system that is much smaller." Nonlinear data sequences and nonlinear system processes cannot be reduced to formulae or rules that can compress the amount of information necessary to manage them, or to make them otherwise predictable and controllable.

As these three characteristics have demonstrated, our common-sense understanding of nonlinearity is often closely associated with the concepts of disorder, chaos and randomness because we typically explain nonlinearity as the opposite of the linear, the logical, and the orderly. It is thus important to emphasize that in the context of complexity, nonlinearity is not associated with disorder. In fact, nonlinearity is an essential ingredient in the processes of emergence and self-organization that generate order in complex systems. Nonlinearity has been presented as the element that distinguishes a complex system from a linear, deterministic or mechanical system. The latter is fully knowable, predictable, and, therefore, controllable in principle. It, therefore, is also unable to do anything that is not pre-programmed or designed if it is a human-made system or new in the sense that we could not know of it in advance if it is a natural system. In contrast, the nonlinearity in complex systems is what makes it possible for these systems to adapt and to evolve, in other words to create something new that goes beyond what is pre-programmed in the parts that make up the system. Nonlinearity is thus an essential part, in fact a pre-condition, for emergence, self-regulation, and adaption in complex systems (Cilliers 1998).

One of the ways in which complex systems use constraints to maintain themselves within certain parameters is through the use of feedback mechanisms. When certain thresholds are crossed, positive or negative feedback is used to correct the system back to within its parameters. While complex systems may thus theoretically be capable of a huge variety or range of actions, their behavior is typically constrained within a fairly limited range of options. While individuals may thus be theoretically free to choose any action, in a given social context their behavior is typically constrained to within a fairly limited range of options by influences such as what would be regarded as legal, moral, and appropriate by an individual's society, family, and friends. When an individual acts outside of these parameters, feedback is applied through a range of social sanctions that, in most cases, serve to direct the individual back to within the social norm.

At this point, the first two complex-systems characteristics have been introduced, namely the whole-of-systems approach and nonlinearity. Let us turn now to the third characteristic, namely self-organization.

Self-organization

Self-organization refers to the ability of a complex system to organize, regulate, and maintain itself without needing an external or internal managing or controlling agent. Take for example the economy of any reasonably open economic system. Such an economic system is a self-organizing system in that it continuously responds to a large number of factors without requiring a controlling agent (Cilliers 1998). It is the cumulative and collective effect of their actions that determines the overall behavior of the system. The state of the economy in any given country or region depends on a large number of dynamic factors. As these conditions vary, the

individuals and organizations in the system continuously adjust their actions so that they can reap the most benefit from the prevailing conditions. Each individual or organization acts in its own interest, but their actions can have significant implications for the system as a whole.

This is especially the case when individual actions aggregate into swarm behavior—where the actions of some trigger behaviors by others that result in large swarm-like fluctuations in the system, in other words when a large number of individual agents respond similarly in what appears to be coordinated behavior. For instance, a large number of people may start fleeing when a rumor spreads that an attacking force may be approaching. Or a large number of investors may start flocking to a certain market or stock as rumors spread of its good prospects. The economy is often discussed as if it were an organism, but as these examples show, we need to think of it more as an ecosystem because it is not the economic system as a whole, but rather the individuals and organizations that constitute the economic system, that individually consider and respond to the factors that matter to them, and it is the cumulative and collective effect of their individual decisions and behavior that result in the emergent behavior of the system as a whole.

There are also some economic agents that are trying to influence the system in what they perceive to be in the best interest of their subsystem or even the system as a whole. Governments, central banks, and multilateral institutions like the International Monetary Fund or the World Bank may, from time to time, try to act in ways that they perceive to be in the interest of the world economy or the economy of a region or a specific country. Their actions, however, only constitute another input into the system, because they do not have control over how the system responds to their inputs. We can thus not regard them as controlling agents. At best, they are some of the more influential agents in the system.

The organization of the economic system as a whole thus comes about as a result of the interaction between the various agents that constitute the system and its environment (Cilliers 1998). There is no single agent or group of agents that controls the economic system, but there are many agents that try to influence the behavior of the system, and there are many more who simply respond in what they regard as their best interest to what they perceive, with the information available to them, to be the current state or future direction of the economy. The overall effect is that the economy self-organizes spontaneously, and this is an emergent process that comes about as a result of the cumulative and collective interaction of all the agents in the system. As discussed in the previous section, this process is nonlinear and dynamic and thus cannot be predicted or controlled. So many causal reactions are happening simultaneously that no one agent or group of agents working together can control the system.

Although a dynamic system like the economy is too complex to model deterministically (Cilliers 1998), it is possible to influence it at various levels. As mentioned earlier, many organizations, like central banks, exist explicitly for the purpose of trying to influence the economy. Nonlinear causality generates asymmetrical relations, which implies that relatively powerless agents can sometimes have a disproportionate effect on the system. However, the effects of any such interventions, regardless of the relative power of the agents, usually only influence the system in the short to medium term because the rest of the agents in the system will respond to any new developments, and these responses will impact on each other and result in further waves of reactions. The cumulative and collective effect of these responses will result in the system as a whole responding in ways that can sometimes be anticipated, but that is ultimately unpredictable. In response to these developments, those that try to influence the system will engage in an iterative process of corrective interventions, similar perhaps to how one has to steer a ship. Whilst this may have the desired effect at times, such as higher interest rates cooling down the economy, it can never amount to control because the influence cannot be guaranteed to have or sustain the desired effect.

The economy is used as an example here because it is something we seem to be able to identify as a system, as if it has an existence apart from ourselves, even though we are constituent agents in it. It can be much harder to identify our, or other, communities and societies as similar selforganizing systems, whose behavior, identity, culture, and values come about as the result of the cumulative and collective actions of all the individual agents in the system. In this context, peacebuilding is thus a conscious attempt to influence the attitudes and behavior of a specific community or society. The point is that just as it is impossible for even relatively powerful institutions like a central bank to control the economy, it is equally impossible for peacebuilders, even a relatively powerful institution like a big peacekeeping operation in a small country, to control any given society. At best it can be one of the more influential agents in the system that manage to nudge a sufficient number of other influential agents in the desired-peace rather than violent conflict-direction. And as argued earlier, for any society to become self-sustainably peaceful, it would need to develop its own internal social institutions that can continue to exert enough of an influence on the society to maintain and sustain peace.

Another important property of complexity in general, and selforganization in particular, that has been referred to several times before is known as emergence. Emergence is important because it explains how the elements in the system are not just merely interacting with each other to maintain themselves. In complex systems, interactions among elements also generate new collective effects that would not have occurred if the different agents had acted on their own. For the purposes of this chapter, we need to focus on how emergence contributes to ordering a complex system. In physics, disorder is understood as entropy, namely as the loss of energy in a system that, if unchecked, will result in the gradual collapse of the system into disorder. For example, the way a machine like a watch or an airplane will stop functioning if not maintained. In contrast, nonlinearity plays a critical role in creating and sustaining order in complex systems, including social systems, that is to say in enabling order to emerge (Cilliers 1998). This change over time-the way in which a system adapts on the basis of its own internal processes as well as its interaction with its environment and the way in which it generates new structures, forms, and functions—is what is meant by emergence. The French Revolution is a dramatic example of how a society reordered itself in response to its own increasing dysfunction, and how, out of seeming chaos and disorder, a totally new way of organizing itself emerged. A key characteristic of complex systems is thus that they emerge and maintain themselves spontaneously, without the intervention of an external designer or the presence of some form of internal or external controlling agent(Cilliers 1998).

Three of the core characteristics of complexity, namely a whole-ofsystems approach, nonlinearity, and self-organization, have now been introduced, and key concepts such as feedback and emergence have also been discussed. In the next sections, the focus is on the implications that nonlinearity, self-organization, and emergence have for peacebuilding.

Implications of Complexity for Peacebuilding

What insights can be gained from applying complexity to peacebuilding? At the epistemological level, complexity implies that the nonlinear and highly dynamic nature of complex systems place inherent limitations on our ability to know, predict, and control them, including social systems. It also limits our ability to generate knowledge that is transferable from one context to another (Ramalingam 2013). Complexity thus reminds us to be skeptical, in principle, of results and findings that claim to be universally applicable or transferable, regardless of the method used to obtain them, because all methods are limited when considering highly dynamic and nonlinear phenomena.

In international peacebuilding, the traditional problem-solving approach is still widely practiced, namely where an objective international peacebuilding expert definitively analyzes a conflict to isolate the problem, on the basis of which a 'solution' is then designed and administered via a donor-funded programmatic intervention, all on behalf of a passive local society that needs to be empowered by the peacebuilders to participate in their own peace process. Concepts like state-building and peacebuilding convey the assumption that external actors like the United Nations have the knowledge and agency to 'build' the state and design peace processes, in the same way we can design and build a bridge or a tunnel.

The insights we have gained from complexity, and especially from the processes of emergence and self-organization, inform us, however, that social systems build themselves. External actors like the United Nations or international NGOs can only influence the process. An approach informed by insights from complexity would thus have peacebuilders facilitate inductive processes that assist knowledge to emerge from the local context, where such knowledge is understood as provisional and subject to a continuous process of refinement and adaptation. External interventions can inhibit, interfere, or even disrupt the self-organizing process in a social system, or they can nurture, enable, and stimulate self-organization. Adaptive Peacebuilding is an approach designed to follow the latter approach.

Complexity informs us that in complex systems, including social systems, change processes are emergent from the local system and evolutionary in nature; in other words, the local system adapts to its environment and learns from its own emergent behavior through a continuous process of inductive adaptation, regulated by its own self-organizing processes. Local in this context thus refers to those processes that are emergent from the local experience, while the external refers to the external environment with which the elements in the local system are interacting or to processes that are emergent from external experience. The local social system adapts and evolves in response to the stimulation of both the external environment and its own internal feedback in an ongoing iterative process. To apply the complexity approach to peacebuilding, we thus need to think in terms of local systems and the external influences in their environment, but at the same time we need to be aware that the boundaries we utilize in the process have emerged as a result of the choices we have made in our analysis. This does not mean that our choices are completely arbitrary, as our analysis is based on features and factors that can be verified empirically, but we need to be aware of the degree to which our own choices influence our boundary analysis.

When a closed-system like a machine is stressed, it breaks down and needs to be repaired. International peacebuilders tend to apply this analogy to social systems and often approach peacebuilding as if it is a tool to fix fragile states (Ghani and Lockhart 2009). In complex systems, the elements react to stimuli in nonlinear ways, and this enables the system to evolve, so that it can find new ways to pursue its goals and reach its objectives, despite obstacles, stressors, and constraints. In fact, complex systems need to be under a certain degree of stress to adapt and evolve, and the systems that thrive are those that are able to maintain a high degree of innovation without losing their basic integrity and stability in the process (Taleb 2012). In other words, these systems are not fixed through outside intervention-they 'fix' themselves. Trying to 'fix' them from the outside may, in fact, undermine and interfere in the self-organizing process. Fragility can thus be understood as a complexity deficit, as a system that has insufficient or limited capacity to self-organize. In this context, a lapse into violent conflict can be thought of as a social system collapsing as a result of a loss of complexity (Tainter 1988).

Another concept that has emerged in this regard and that has related meanings is resilience (Chandler 2014). As discussed earlier, if a society is fragile, it means that the social institutions that govern its politics, security, justice, and economy lack resilience. Resilience refers here to the ability of these social institutions to absorb and adapt to the shocks and setbacks they are likely to face. Resilience is increased when social institutions and networks become more diverse and interconnected, so that they can share and process more information. Robust self-organized networks distribute vulnerability across their social networks. If one node fails under pressure, others can carry the load, thus preventing system collapse (de Coning 2020). The risk is gradually reduced as social institutions develop more resilience. From this perspective, peacebuilding should be about stimulating and facilitating the capacity of societies to self-organize, so that they can here and internal complexity (de Coning 2016).

Peacebuilding is about peace consolidation, and while avoiding a lapse into violent conflict is important, it should be recognized that preoccupation with controlling the political and social space to ensure security and stability is likely to constrain the space and pace for the emergence of selforganization. The 'normal' and, in fact, optimal state of a society is for its constituent parts to be in competition with each other, for instance over access to limited resources. An international intervention cannot aim to achieve self-sustainable peace and stability and suppress such internal competition at the same time. The best way to ensure sustainable peace consolidation is to encourage and facilitate the capacity of a society to organize itself so that it develops the resilient institutions necessary to manage its internal tensions. A complex-systems approach needs to be sensitive to the need for societies to self-evolve, including through constructive conflict and competition. If we accept that in complex systems change is normal, even optimal, then it would make sense to invest in developing improved capacities to facilitate and cope with change. This approach requires peacebuilders to shift their focus from trying to manage change in order to ensure that the local system arrives at a predetermined end-state. Instead, they should limit their own role to stimulating the local system so that it develops the robustness and resilience necessary to manage itself without lapsing into violent conflict.

A complex-systems approach suggests that peacebuilders need to understand peacebuilding as essentially a local process. The role of the external actors may be helpful, for instance, to restore stability after an outbreak of violent conflict and to act as a catalyst by stimulating and facilitating the processes necessary for social regeneration. However, peacebuilders need to recognize that external intervention is not sufficient to achieve self-sustainable peace. The essential ingredient for selfsustainable peace is local emergent self-organized complexity. It is possible for a society to become peaceful on its own, but it is not possible to make or build peace on behalf of a society from the outside. International peacebuilders thus have to come to terms with what it really means when they say that something is context-specific. It means that a sustainable socialpolitical order can only emerge from that context (de Coning 2013). It means that they cannot import a model, such as the liberal peace model, and simply make a few adjustments for the local culture and context (Richmond 2011; Mac Ginty 2011).

The key to effective peacebuilding lies in finding the appropriate balance between the extent to which external security guarantees, resources, and facilitation are needed, on the one hand, and the degree to which the local system has the freedom to develop its own self-organization, on the other. What is appropriate has to be determined in each specific context, but if the level of intervention has a negative impact on the ability of the society to self-organize, then it has crossed the threshold. If the effect of the intervention is that it undermines the ability of the local system to self-organize, then the level of external support has become deterministic and inappropriate. As these processes are dynamic and nonlinear, what is appropriate will depend on an analysis of the context.

With the help of these insights gained from applying complexity to peacebuilding, we can conclude that self-sustainable peace is directly linked to, and influenced by, the extent to which a society has the capacity and space to self-organize. For peace consolidation to be self-sustainable, it has to be the result of a home-grown, bottom-up, and context-specific process. The robustness and resilience of the self-organizing capacity of a society determine the extent to which it can withstand pressures and shocks that risk a (re)lapse into violent conflict. Peacebuilding should thus be about safeguarding, stimulating, facilitating, and creating the space for societies to develop robust and resilient capacities for self-organization. That is why peacebuilding has to be understood as essentially local (de Coning 2013).

The implication is that for peacebuilding to be sustainable, we need to shift the agency from the international to the local. International peacebuilding interventions should provide security guarantees and maintain the outer parameters of acceptable state behavior in the international system. Peacebuilding should stimulate, facilitate, and create the space for the emergence of robust and resilient self-organized systems. However, external peacebuilders should not interfere in the local social processes with the goal of engineering specific outcomes. Trying to control the outcomes of these processes produces the opposite of what peacebuilding aims to achieve; it generates ongoing instability, dependence, and fragility because it undermines self-organization.

Conclusions

This chapter introduced Adaptive Peacebuilding, discussed its theoretical foundations in complexity theory, and explored some of the implications of complexity thinking for peacebuilding. Complexity was introduced by discussing three of its core characteristics, namely a holistic systems approach, nonlinearity, and self-organization. In the process, the chapter also touched on key concepts such as feedback and emergence.

The discussion then considered some of the implications of complexity for peacebuilding policy and practice. The most fundamental implication of complexity for how we understand and approach peacebuilding is probably the realization that the ability of external agents to gain knowledge of the complex social systems we are dealing with in the peacebuilding context is inherently limited. In other words, we need to recognize that international actors do not have the agency to analyze a conflict, design a solution, and apply that solution with a reasonable likelihood that such an externally designed intervention can result in a self-sustainable peace.

In complex systems, there is no one definitive problem that can be solved. Second, for a peace process to be self-sustainable, any complex social system will need to develop its own institutions to manage its own conflicts peacefully, and for that to happen it needs enough space and time to allow its own self-organizing processes to emerge and evolve. International peacebuilders can assist and facilitate this process, but if they interfere too much they will undermine and delay this crucial selforganizing process. The key to successful peacebuilding thus lies in finding the appropriate balance between international support and local self-organization, and this will differ from context to context.

The implications for peacebuilding practice are derived from our understanding of how complex systems function. Most of the technical models we rely on for conflict analysis, planning, management, and evaluation are based on linear cause-and-effect assumptions that do not fit with our experiences and knowledge of how complex social systems function. The core finding of this chapter is that international peacebuilding interventions should not interfere in complex social systems with the goal of engineering specific predetermined outcomes. Trying to control the outcome produces the opposite of what peacebuilding aims to achieve; it generates ongoing instability, dependence, and fragility because it undermines selforganization. The primary directive that should guide all conflict resolution and peacebuilding initiatives is, above all, to do no harm.

A complexity informed approach to peacebuilding should be about safeguarding, stimulating, facilitating, and creating the space for societies to develop robust and resilient capacities for self-organization. Adaptive Peacebuilding is thus a conscious normative and functional approach to peacebuilding that is aimed at navigating the complexity inherent in trying to nudge societal change processes toward sustaining peace, without interfering so much that it ends up causing harm by inadvertently disrupting the very feedback loops critical for self-organization to emerge and to be sustained.

Adaptive Peacebuilding thus offers an alternative pathway. In contrast with top-down or deterministic approaches to peacebuilding, Adaptive Peacebuilding is a process where local, national, and international peacebuilders, together with the societies, communities, and people affected by a conflict, actively engage in a structured and collaborative process to sustain peace and resolve conflicts by employing an inductive, collaborative, and iterative process of learning and adaptation.

References

- Aoi, Chiyuki, Cedric de Coning, and Ramesh Chandra Thakur, eds. 2007. Unintended Consequences of Peacekeeping Operations. Tokyo: United Nations University Press.
- Brusset, Emery, Cedric de Coning, and Bryn Hughes, eds. 2016. *Complexity Thinking for Peacebuilding Practice and Evaluation*. London: Palgrave.
- Byrne, David. 1998. Complexity Theory and the Social Sciences: An Introduction. London: Routledge.
- Chandler, David. 2014. Resilience: The Governance of Complexity. Oxon: Routledge.
- Chapman, Jake. 2002. System Failure: Why Governments Must Learn to Think Differently. 2nd ed. London: Demos.
- Cilliers, Paul. 1998. Complexity and Postmodernism: Understanding Complex Systems. London: Routledge.
 - . 2001. Boundaries, Hierarchies and Networks in Complex Systems. *International Journal of Innovation Management* 5 (2): 135–147. https://doi. org/10.1142/S1363919601000312.
- 2002. Why We Cannot Know Complex Things Completely. *Emergence* 4 (1–2). Routledge: 77–84. https://doi.org/10.1080/15213250.2002. 9687736.
- Connolly, Lesley, and Laurie Mincieli. 2019. Sustaining Peace in Papua New Guinea: Prevention in Practice. New York: International Peace Institute. https://www.ipinst.org/wp-content/uploads/2019/09/1909-Sustaining-Peace-in-PNG.pdf.

de Coning, Cedric. 2013. Understanding Peacebuilding as Essentially Local. *Stability: International Journal of Security and Development* 2 (1): 6. https://doi.org/10.5334/sta.as.

------. 2016. From Peacebuilding to Sustaining Peace: Implications of Complexity for Resilience and Sustainability. *Resilience* 4 (3): 166–181. https://doi.org/1 0.1080/21693293.2016.1153773.

------. 2018. Adaptive Peacebuilding. International Affairs 94 (2): 301-317. https://doi.org/10.1093/ia/iix251.

- . 2020. Adaptive Peace Operations: Navigating the Complexity of Influencing Societal Change Without Causing Harm. *International Peacekeeping* 27 (5): 836–858. https://doi.org/10.1080/1353331 2.2020.1797500.
- Donais, Timothy. 2012. Peacebuilding and Local Ownership: Post-Conflict Consensus-Building. New York: Routledge.
- Ghani, Ashraf, and Clare Lockhart. 2009. *Fixing Failed States: A Framework for Rebuilding a Fractured World*. 1st ed. New York: Oxford University Press.
- Hendrick, Diane. 2009. 'Complexity Theory and Conflict Transformation: An Exploration of Potential and Implications'. 17. Working Paper. Bradford: Department of Peace Studies, University of Bradford.
- Jervis, Robert. 1997. System Effects: Complexity in Political and Social Life. Princeton: Princeton University Press.
- Kiel, Douglas L. 1996. Chaos Theory and Disaster Response Management: Lessons for Managing Periods of Extreme Instability. In What Disaster Management Can Learn from Chaos Theory? Conference Proceedings May 18-19, 1995, 186–210. Sacramento: California Research Bureau.
- Luhmann, Niklas. 1990. The Autopoiesis of Social Systems. In *Essays on Self-Reference*, 80-85. New York: Columbia University Press.
- Mac Ginty, Roger. 2011. International Peacebuilding and Local Resistance: Hybrid Forms of Peace. New York: Palgrave Macmillan.
- Meadows, Donella H. 1999. Leverage Points: Places to Intervene in a System. Hartland: The Sustainability Institute. https://donellameadows.org/wpcontent/userfiles/Leverage_Points.pdf.
- Mitchell, Melanie. 2009. Complexity: A Guided Tour. New York: Oxford University Press.
- Morin, Edgar. 2005. 'Restricted Complexity, General Complexity'. In *Intelligence de La Complexité: Épistémologie et Pragmatique*. Cerisy-La-Salle, France. https://web-archive.southampton.ac.uk/cogprints.org/5217/1/Morin.pdf.
- Prigogine, Ilya. 1996. The End of Certainty: Time, Chaos and the New Laws of Nature. New York: Free Press.
- Ramalingam, Ben. 2013. Aid on the Edge of Chaos Rethinking International Cooperation in a Complex World. Oxford: Oxford University Press.

- Richmond, Oliver P. 2011. Resistance and the Post-Liberal Peace. In *A Liberal Peace? The Problems and Practices of Peacebuilding*, ed. Susanna Campbell, David Chandler, and Meera Sabaratnam, 226–244. London: Zed Books.
- Tainter, Joseph A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press.
- Taleb, Nassim Nicholas. 2012. Antifragile: Things That Gain from Disorder. New York: Incerto / Random House.

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