Mitchell Hamline School of Law in Saint Paul, Minnesota has been educating lawyers for more than 100 years yet remains committed to innovation to respond to the changing legal market. Featuring more enrollment options than any law school in the country, Mitchell Hamline is committed to accessibility and offers a curriculum rich in advocacy and problem solving. The law school’s Dispute Resolution Institute, consistently ranked in the top five dispute resolution programs by U.S. News & World Report, offers more than 30 alternative dispute resolution courses each year in a wide variety of domestic and international programs, including certificate programs in arbitration law and practice, problem solving, and conflict resolution, and is the home of DRI Press. For information on other DRI Press publications, visit http://open.mitchellhamline.edu/dri_press/
Editors’ Note: In the second chapter of our complex-case trilogy, the authors summarize recent findings from complexity science and dynamical systems theory, showing how the new insights provide the possibility of innovative levers for change. Their key findings are presented as a set of five guidelines. This follows the more general explanation in Coleman and Ricigliano on Getting in Sync and is also closely related to the next chapter, Influencing Intractable Conflicts, which also presents a set of five guidelines: this time, for actually working on a conflict which, on the surface, appears impossible to influence.

Scholars report that between five and eight percent of contentious relationships between nations become intractable: they intensify, become locked-in, and persist for an average of thirty-six years (Diehl and Goertz 2001). Similar patterns of entrenched conflict are found in families, organizations and communities. These destructive dynamics wreak
havoc and bring considerable suffering, cost and instability to the families, communities, nations and regions involved. For negotiators and conflict resolution practitioners working with parties to resolve these types of conflicts, traditional negotiation tactics are at best insufficient, and at worst can serve to perpetuate or exacerbate existing tensions. This chapter and the next one illustrate how recent findings from complexity science and dynamical systems theory can be applied to these seemingly intractable conflicts, offering new insights into innovative levers for change. The key findings are summarized as a set of guidelines, five in each chapter.

Conflict is about change. It revolves around disputants’ needs or desires to address tension from incompatible activities (contrasting interests, beliefs, values or desires) by changing situations, relationships, the balance of power, the other disputants’ actions, values, beliefs or bargaining position, or a third party’s wish to change a conflict from low-intensity to high (as with some activists), or from high-intensity to low (as with negotiators and mediators). Conflicts often emerge from changing circumstances and relationships and, in turn, change those circumstances and relationships. Therefore, how we think about and approach change—or in the case of intractable conflicts, how we understand social systems that appear to doggedly resist change—is paramount.

There are many theories of change, and disputants as well as conflict resolution practitioners all operate within one or more of these theories, whether implicit or explicit, simple or complex, formal or informal (Coleman 2004). Four hundred years of mostly atomistic, linear, cause and effect approaches to science have left our understanding of conflict and change dynamics largely decontextualized, short term and piecemeal (Coleman 2011). Although many research findings from this paradigm have proven fruitful, and the practices informed by these findings are effective in some contexts, they have infused our theorizing, research and practice with a set of assumptions that severely limit their generalizability and practical utility in our increasingly complex, dynamic world. These include:

- Relating fluid things (conflict dynamics) to fixed things (static attitudes or beliefs).
- Thinking about change only in linear, cause-and-effect terms.
- Privileging effects on short-term outcomes over long-term patterns in research and practice.
- Framing complex conflicts in narrow, disciplinary or sectoral ways.
- Focusing primarily on problems and pathologies (violence and war) in lieu of solutions and healthy states (cooperation and peace).
- Marginalizing the role of emotions in our science and practice.
- Over-simplifying or over-complicating our models and methods.
Missing the invisible or currently unobservable dynamics at play in conflict systems.

- Failing to foresee the unintended consequences of our actions (Coleman 2011; Vallacher et al. 2013).

Although intractable conflicts are often multiply-determined (Coleman 2003), we suggest that it is some combination of 1) their highly complex and dynamic natures, 2) our misbegotten assumptions of how they emerge, evolve and change, and 3) the unintended consequences of our often well-intentioned attempts at changing them, that creates a perfect storm of intractability. Consequently, many conflicts become self-perpetuating and wear on despite multiple good faith attempts at their resolution (Kriesberg 2005: 65-98).

However, complexity science, and in particular dynamical systems theory (DST), a school of thought coming out of applied mathematics, offers new, highly original and practical insights about how systems of all types—from cellular to social to planetary—change and resist change (see Coleman 2011; Vallacher et al. 2010; Vallacher et al. 2013). In this chapter, we outline a new theory of practice for addressing long-term conflicts that is emerging from this paradigm.

Guidelines for Understanding Intractable Conflict: A “Dynamical Systems” Theory of Practice

Dynamical systems theory (DST) is a relatively new and increasingly influential paradigm in many areas of science, which offers an innovative set of metaphors, models and methods for conceptualizing and addressing conflict. A dynamical system is defined as a set of interconnected elements (such as beliefs, feelings, and behaviors) that change and evolve in time, where a change in each element depends on influences from other elements. Due to these interacting influences, the system as a whole evolves in time and new elements and dynamics emerge that in turn affect the system’s evolution. Thus, changes in any element of a negotiation process (such as levels of trust) depend on influences of various other elements (each disputant’s motives, attitudes, actions, etc.), which evolve over time to affect the general pattern of interactions (positive or negative) in the dispute. Likewise, through the negotiation process new dynamics emerge in the relationships between conflict parties that can themselves become grounds for dialogue and new points for negotiation. The implication of this for negotiators and mediators is that they must simultaneously hold space for the original inputs to the negotiation (interests, positions, needs and dynamics), identify emergent issues that occur in-process, and identify appropriate ways to incorporate those into negotiations. The principles defining the evolution of dynamical systems have wide applicability and have been employed to conceptualize and investigate a highly diverse set of conflict-related...
phenomena (emotion, stereotyping, attitude change, cooperation versus competition in social dilemmas, etc.).

Every theory of practice is based on a particular worldview: a set of images, values and assumptions that are often more implicit than made explicit (Coleman 2004). While there are some basic tenets that underpin most theories of practice, for example “Do No Harm” (Anderson 1999), the DST theory of practice has a few basic tenets that set it apart as a unique approach to practice in complex and intractable situations (for elaboration, see Coleman 2011, 2014; Vallacher et al. 2010; Vallacher et al. 2013). The foundational assumptions of this new approach are:

- **Complexity matters:** intractable conflicts operate within a complex network of forces. This means that there are typically multiple, interrelated causes, actors, perspectives and narratives at play in the conflict system—although some will prove more central to intractability than others. It also means that there are likely multiple entry points, solutions and pathways to peace (Burns 2007).

- **Time matters:** both linear and non-linear change dynamics operate in conflict systems. Focusing on only linear effects (shorter-term cause and effect relations prominent in Western science and logic) often brings unintended consequences and eclipses our understanding of how these linear effects play out over time in complex, nonlinear systems (Dörner 1996). The key is to understand both linear effects and nonlinear dynamics in relation to one another and in terms of different temporal scales.

- **Inclusion matters:** given the multiply-determined nature of these conflict systems, more inclusive practices involving a broad and diverse set of stakeholders are likely to be more effective. More inclusive approaches can provide a more comprehensive view of a system, offer higher probabilities of identifying critical drivers and novel insights, and, if conducted in a manner perceived as legitimate, result in more buy-in and sustainability from a broader set of constituents. However, more inclusive practices can also be more costly and messy, and less efficient, particularly when attempts are made to involve more militant, marginalized groups. There is a thus critical tension in change processes between inclusiveness and efficiency (Coleman and Voronov 2003).

- **Emotion matters:** despite their relative neglect in conflict research, emotions often play a vital role in sustaining and transforming intractable conflicts. The presence or absence of strong reservoirs for positivity and negativity in relational systems in conflict has proven to be among the central parameters for determining enduring conflict and sustainable peace. (Gottman et al. 2014)
The system rules: intractable conflict systems have their own exceptionally strong internal propensities.

When you push on a system mired in intractable conflict, it pushes back, and the harder you push, the more it rallies against you. This is why most attempts at intervention fail in these conflicts. Therefore, instead of interjecting new ideas, goals and methods as a means of changing a conflict system, it is best to become intimately familiar with the existing propensities of the system, and then to work with the dynamics of the system to affect constructive and destructive probabilities (Jullien 2004; Gal 2013).

The general objectives of the DST approach differ fundamentally from the objectives of more standard models of conflict resolution; they do not aim to identify and satisfy disputants’ underlying grievances, interests and needs in order to resolve the presenting conflict. Rather, the DST approach starts with comprehending the dynamics of the system that are maintaining the status quo of the conflict and then exploits these insights by working with the flow of these dynamics to shift the probabilities of destructive conflict and foster sustainable peace processes. Specifically, the objectives are to work with stakeholders to regain a sense of accuracy, agency and possibility in what seems like an otherwise impossible conflict, and then to co-create more sustainable solutions by opening up the system to new information before facilitating a reconfiguration of the patterns of relations—over time—from destructive to constructive. This is accomplished by employing a set of practices aimed at constructively managing the current state of the conflict, while simultaneously working to increase the future probabilities for constructive relations between the parties and decreasing the probabilities for destructive future encounters (see Nowak et al. 2010, for access to an online tool for working with these dynamics).

Below is a schematic and set of guidelines for a DST theory of practice. Note that describing these guidelines in a linear, sequential manner only reinforces more traditional linear thinking. Therefore, we organize their presentation around a basic set of change practices on systemic preparation, comprehension, engagement, and learning and adaptation for working with complex, nonlinear systems (See Figure 1). Rather than adopting these guidelines as a step-by-step approach, readers are instead encouraged to view the guidelines holistically, employing and moving between processes as appropriate during the change process. The first two sets of practices (preparation and comprehension) are covered in the current chapter, while the second two (engagement, and learning and adaptation) will be covered in the following chapter.
We have labeled the first set of guidelines in our model as systemic preparation. Working effectively to change complex, dynamic conflict systems is demanding and unfamiliar to most, and requires a set of competencies, skills and approaches to assessment rarely offered in trainings on conflict management. This is not only true for conflict practitioners, but also for leaders, managers, representatives, disputants, third parties and other stakeholders involved in these settings. As such, it is critical for those consulting to parties in these systems, as well as the parties involved, to gain a working familiarity with basic systems concepts. Ideally, practitioners will take this a step further, internalizing these competencies and skills sufficiently to be able to encourage deeper understanding within the parties they are working with. The following guidelines outline two categories of competencies integral for systemic preparation.

Guideline #1: Enhance Individual Competencies for Systemic Wisdom

Because complex conflicts are themselves systems of interrelated factors and dynamics, some of which are obscured by traditional means of understanding conflict, enabling stakeholders to navigate these forces and engage each other more constructively requires that they understand the system as a system. Gregory Bateson (1972: 440) emphasized this when he said, “Lack of systemic wisdom is always punished... Systems are nonetheless punishing of any species unwise enough to quarrel with its ecology. Call the systemic forces God if you will.” For Bateson, the first step in creating social wellbeing is enhancing systemic wisdom: understanding that we are dependent upon, and participants in, a larger living system.

Previously, we identified a set of basic building blocks that could be considered core competencies for systemic wisdom (Coleman 2011). They include:
Understanding that nonlinear networks of causation are distinct from linear, cause and effect models. Systems are composed of multiple elements interacting and evolving over time, requiring one to identify the multitude of factors that conspire to drive undesirable outcomes, rather than looking for one or two direct causal factors.

- Enhancing complex thinking, feeling, acting, and social identification with decision makers and other key stakeholders.
- Understanding how latent (implicit) processes operate and how they manifest, and the trade-offs of working with both implicit and explicit processes.
- Effectively balancing the tensions between short-term and long-term thinking and action.
- Exercising multilevel thinking: enhancing awareness and acting at different levels (psychological, social, structural, institutional, cultural) simultaneously.

Prior research has suggested that higher levels of five relevant individual competencies are associated with more constructive conflict tendencies: cognitive, behavioral, and emotional complexity, tolerance for ambiguity, and broader temporal scope (i.e. consideration for future consequences). In a recent study (Redding and Coleman working paper), we investigated the relationships between these competencies and participants’ capacities for effectively navigating a complex intractable conflict scenario. After assessing the five competencies through standardized survey measures, participants played a complex computer simulation game, which required them to act as the Prime Minister of Israel working to navigate the complexities of the Israeli-Palestinian conflict to bring about a sustainable long-term resolution.

Preliminary results of the study suggest that these competencies are associated with gaining a more complex understanding of the system, engaging more constructively with the other party, and taking actions more conducive to sustainable outcomes. Participants with higher levels of cognitive complexity took action more quickly at the onset of the conflict in order to begin to better understand how the system operates. They were also, at the conclusion of the simulation, better able to differentiate the multiple perspectives relevant to the conflict and to integrate those perspectives within a larger context. Additionally, those higher in this trait, along with higher levels of tolerance for ambiguity and consideration for future consequences, were more likely to simultaneously employ multiple approaches to improving the situation—a strategy associated with more efficacy in complex systems (see Dörner 1996)—rather than sticking to one approach. This was demonstrated, for example, by actively engaging with the conflict through political channels, while simultaneously reallocating security forces as needed and advancing infrastructure and economic development projects.
Those higher in emotional complexity tended to identify more of the broader range of actors involved in the conflict, and relied less on drastic measures that would result in long-term negative impacts on their relationships with others in system. In other words, those who were more emotionally complex were less likely to retaliate with violent force to a security violation such as suicide bombing or threats from an extremist group. Lastly, those higher in cognitive complexity, emotional complexity and tolerance for ambiguity employed more constructive actions throughout the simulation as compared to those lower in these competencies. Overall, these individuals focused their actions more on enhancing communication, building trust, coordinating effort and responding to the other party’s (i.e. Palestinian) needs.

Research in this area is still nascent but the above findings suggest that there are specific competencies that can be developed for increasing systemic wisdom. In addition to advancing research in this area, our group has developed a three-stage model for coaching those working to ameliorate intractable conflicts (Redding and Coleman working paper), which expands beyond traditional approaches to conflict coaching (see Jones and Brinkert 2007). Essentially, our model proposes that individuals can increase systemic wisdom by avoiding tendencies to over-simplify the narratives they impose on the complex systems they are working with. Instead, it is essential to work consciously toward developing mental models that are sufficiently complex for identifying underlying patterns and dynamics that can be harnessed for positive change. This is accomplished through building systems thinking ability as a competency, and adopting practices that emphasize the identification of all the relevant elements in the system—and the relations between the elements that give rise to the overall dynamics that are observed—before moving to implement change in the system. While engaged in this process, individuals should be aware of tendencies to collapse the complexity of their own emotional experiences when engaged in conflict: experiencing a broad range of emotions can be a valuable source of information when faced with a broad array of decisions. Additionally, it is essential for change makers to build self-awareness around their general level of comfort with ambiguity, as well as their preferences for privileging short-term over long-term thinking. These are difficult tendencies to change. But increased self-awareness can, over time, lead to more adaptive decision making that is essential for fostering long-term sustainable change.

The evidence suggests that higher levels of systemic wisdom enable stakeholders at various levels of power to navigate a conflict system more effectively. Not only this, but stakeholders are thus better equipped to engage the system to encourage more constructive means of action and interaction. Therefore, building or enhancing systemic wisdom among stakeholders is a critical step in enabling them to move from intractable conflict toward constructive engagement. At the individual level, this can be fostered by challenging individual tendencies to oversimplify their
understanding of complex situations — including the emotional experience as a participant in the system — instead working within the ambiguity inherent to such challenges. Individual stakeholders can also be encouraged to identify the multiple alternative roles they can occupy as change agents in the system, and to avoid tendencies to reduce ambiguity by engaging in short-term thinking and action.

Another approach to building systemic wisdom among stakeholders in a system is to bring them together. When engaging with multiple stakeholders, groups are typically challenged to consider the broader range of factors and perspectives that are relevant to the conflict. Employing activities such as conflict mapping (see Guideline #3) challenges participants to see the system as a whole rather than through the lens of their individual experience. When these stakeholders begin to see their role in a larger system of influences, their perspectives on the system and understandings of ways to improve the system begin to change.

**Guideline #2: Increase Competencies for Conflict Intelligence: Adaptivity, Optimality and Systemic Agency**

The capacity to effectively navigate and leverage destructive and constructive conflict dynamics in complex systems also requires enhancing our *conflict intelligence* (Coleman and Ferguson 2014), which entails developing a set of three dynamic, behavioral competencies for conflict adaptivity, optimality and systemic agency.

**Exercising Adaptivity**

Conflict *adaptivity* is the capacity to employ different strategies in different conflicts, or as the same conflict situation evolves and changes over time, in a manner that achieves goals effectively and is fitting with the demands of the situation (Coleman et al. 2010). It involves a capacity to read situations accurately and then employ distinct strategies (such as Benevolence, Cooperation, Support, Dominance, Competition, Appeasement or Autonomy; see Coleman and Ferguson 2014) where they fit, and in a manner and to a degree that allows for satisfactory progress in achieving one’s goals. More adaptive approaches to conflict resolution have been found to be associated with higher levels of efficacy and satisfaction with mediation processes (Beardsley 2010; Beardsley et al. 2006; Jacobs and Aakhus 2002; Kolb 1994; Picard 2004; Riskin 1997) and higher levels of satisfaction with conflict generally. In organizations, conflict adaptivity has been associated with increased work satisfaction, better relationships with co-workers, greater emotional well-being, reduced job stress and fewer intentions to quit (Coleman and Kugler 2014; Coleman, Mitchinson and Kugler 2009). Lastly, at the international level, case-based research on interstate negotiations found parties were
more effective in negotiations to the extent that they were able to adjust their strategies to fit the relative (and relevant) power of the other side (Zartman and Rubin 2002).

**Seeking Optimality**

*Optimality* is the capacity to combine different approaches to conflict management (such as integrative and distributive tactics with mixed-motive conflicts) optimally to achieve the best possible outcomes (Coleman, Kugler, Kim and Vallacher working paper). Research suggests that effective individuals rarely rely on a single conflict handling style, instead employing more blended or “conglomerated” approaches that utilize the beneficial components of a variety of tactics (Van de Vliert, Euwema and Huismans 1995). For instance, effective attorneys use a pattern of behaviors in negotiations that do not neatly fit any one of the conflict-style categories (Schneider 2012; Williams 1983; 1993). Similarly, recent research in our lab on optimal ratios between more individualistic (self-focused) and more collectivistic (other-focused) behaviors also found more balanced strategies associated with more integrative styles of conflict management, leading to higher levels of satisfaction with conflict outcomes, processes, relationships, goal attainment and job satisfaction (Kim and Coleman working paper).

**Fostering Systemic Agency**

Finally, *systemic agency* is the capacity to visualize and mobilize networks of collective influence to alter the nature of the context in which a conflict is situated. This is a collective form of efficacy and leverage typically employed when the status quo is unresponsive to more traditional, unilateral methods of constructive conflict resolution. Systemic agency requires systemic wisdom, along with the capacity to comprehend and map the complex networks of causation in which the problem being addressed is situated. But it goes beyond this to include implementing strategies for altering systems dynamics. This perspective is being increasingly adopted in the development sector, with both non-governmental and governmental organizations such as The Omidyar Group, Oxfam, USAID, and the World Bank working to employ systemic mapping and other tools in order to better identify opportunities for change and to mobilize networks of support.

Together, enhancing our own and others’ levels of systemic wisdom and conflict intelligence helps to establish a shared language and capacity for working effectively with complex conflict systems. A set of preliminary-assessment questions may be helpful here, especially for determining what skill development and other early-assistance efforts might be needed before any more direct form of intervention can have a chance of success. These include asking whether the stakeholders and facilitators are...
...sufficiently comfortable with complexity and ambiguity?
...able to avoid reducing the complexity of a situation to simple cause and effect relationships between issues and outcomes?
...open to scanning the environment for existing latent processes that could be enhanced to shift the fundamental dynamics of the system?
...comfortable with thinking about how the system will change in the short term and in the long term (i.e. over different time scales)?
...skilled in adaptivity, effectively employing different strategies in different types of conflicts in a manner fitting with the demands of the situations?
...comfortable with combining different strategies in complex or evolving conflicts?
...skilled at implementing strategies that seek to mobilize networks of individuals that are not directly linked to the conflict but critical to the overall functioning of the system, in order to shift the nature of the context in which a conflict is situated?

Our next set of guidelines focuses on approaches for gaining systemic comprehension. In preparation for engaging actively with systems mired in intractable conflict, it is also critical to gain a current sense of the intrinsic propensities of the system in which you are working (Gal 2013; Jullien 2004). Systems’ scholar-practitioners offer a variety of methods for conducting such investigations and visualizing systems (see Burns 2007; Eoyang and Holladay 2013; Gal 2013; Liebovitch et al. 2014; Ricigliano 2012). Some methods have been designed for more bottom-up, participatory approaches to community visualization (Burns 2007), others for more top-down, expert approaches (Butland et al. 2007; Ricigliano 2012). While the exact approach for visualizing the complex network of factors and dynamics involved in an intractable conflict will vary based on the context of an intervention, three guidelines seem central to many of these approaches.

**Guideline #3: Complicate to Simplify**

Because destructive conflicts demand attention to the here and now—to the issues, violence, hostilities, suffering and grievances evident in the immediate context—they often draw attention away from the history, trajectory, and broader context in which the conflict is evolving. Here, we describe two methods for visualizing the broader historical context.

**Mapping**

First, many peace-practitioners employ the use of complexity feedback-loop mapping to re-contextualize their own and the stakeholders’ understandings of the constellation of forces affecting particular conflicts (see Burns 2007; Coleman 2011; Körppen, Ropers and Giessmann 2011;
Ricigliano 2012). Loop analysis (see Maruyama 1963, 1982) is particularly useful for mapping reinforcing and inhibiting feedback processes that escalate, de-escalate and stabilize destructive conflicts. Reinforcing feedback occurs when one element (such as a hostile act) stimulates another element (such as negative out-group beliefs) along its current trajectory. Here, more of A means more of B, or less of A means less of B. On the other hand, inhibiting feedback occurs when one element inhibits or reverses the direction of another element (such as when guilty or compassionate feelings mitigate hostilities). Here, more of A means less of B.

Feedback-loop mapping not only allows us to capture the multiple sources and temporal dynamics of complex conflicts, but can also help to identify central nodes and patterns that are unrecognizable by other means. The mapping process can take different forms, but typically begins by identifying the nodal focus of interest—the central phenomenon we wish to comprehend (violence, stalemate, peace, etc.; see Vandenbroeck, Goossens and Clemens 2007). Next, the core dynamics are identified, which are those elements and feedback loops most closely associated with the increase or decrease of the nodal variable. After this, the maps can be built out further to help visualize the broader system of elements and feedback dynamics that are affecting the core dynamics upstream. Maps can be generated at the individual level, at the interpersonal level and at the broader group, communal or wider systemic levels.
For example, consider the map above in Figure 2. This was generated by our colleague Aldo Civico through a series of interviews he conducted in Medellín, Colombia in 2012. This map captures the dynamics of the system of violence in Medellín over time. It helps to visualize the dynamics that are constantly attracting the system into violence (solid-line loops). But it also shows some of the inhibiting factors that help us understand why the violence doesn’t get worse (dashed-line loops; a ceiling
effect). It shows hubs that work as major destructive attractors (such as the armed conflict, the Medellin cartel, endemic corruption, the war for hegemony among and within drug cartels, etc.) and the main inhibitors (like civic participation, social and artistic processes in the peripheral areas of the city, the peace and reconciliation program up to 2007, etc.). From this analysis, we can also see that some critical events have strengthened the patterns of violence in Medellin and weakened the effectiveness of inhibitors.

However, feedback loop mapping often results in extremely complex visualizations of a conflict’s dynamics, so it is critical to be able offer strategies for subsequently focusing and simplifying. For instance, Eric Berlow (2010) recommends focusing in on more local elements and loops that are actionable; in other words, those that can feasibly be addressed. Feasible actions, informed by the complexity of events, can affect the probabilities of constructive change in a conflict system, but they should only be targeted after a fuller mapping of the system has provided a sense of the context in which these elements are operating. Another strategy is to look at each of the elements in the system, and take stock of how many other elements are influencing the element upstream and how many elements are influenced by the element downstream. Elements that receive fewer inputs may be easier to change, while those that influence many other elements in this system may have more impact on the system (Coleman 2011; Ricigliano 2012).

Conflict maps can be generated alone as a pre-negotiation exercise, with the help of facilitators or mediators, or in small groups of stakeholders. With conflict-mapping the goal is not necessarily to get it right. The goal at this stage is to get it different; to try to reintroduce a sense of nuance and complexity into the stakeholders’ understanding of the conflict. As described above, when individuals engage in the process of mapping—especially in a diverse group of stakeholders—they are challenged to look beyond the factors that are most relevant to them and to their understanding of the system. A broader picture begins to emerge as each individual contributes to a process that leads to a shared understanding of the system, which in turn, opens up new avenues for change (Burns 2007).

**Inventories**

A second method for visualizing the context of disputes is through structured inventories. Recently, we developed an institutional-level inventory for conducting complex conflict assessments in organizations (Coleman, Redding, Ng, Straw & Burke, working paper). It offers a holistic conceptual framework for assessing the reinforcing/inhibiting conditions for constructive and destructive conflict dynamics (and therefore increasing/decreasing probabilities), and provides an inventory for leaders to conduct organization-level assessments and to explore relevant out-
comes in their organizations (e.g., conflict climate, innovation, morale, organization-commitment, and procedural justice).

To develop this framework, we surveyed the conflict literature for empirical research identifying factors associated with organizational conflict. We then identified a set of existing metrics and measurement instruments for each of these variables, which when combined provides a systemic inventory of drivers and mitigators of conflict processes. The result is an inventory and a large-scale survey assessment tool. The inventory provides a framework for collecting data through, for example, organization records, environmental analysis, interviews and direct observations. The survey instruments can be used to assess conflict climate perceptions of organization members across levels. Such assessments are useful for identifying potential conflict “hot spots” as well as more subtle or counter-intuitive contributors to destructive conflict. This information may also prove useful in identifying positive organizational dynamics to build on, as well as latent attractors (see below) that could be activated to shift destructive organizational conflict processes in a more constructive direction.

If there is sufficient time, negotiators and key stakeholders can work to develop inventories such as the one we developed for organizational conflict, to fit the context of the conflict scenario. This can serve as an initial step in the comprehension process, allowing for a broader understanding of the factors that are most relevant to understanding the system, a clearer sense of the nodal focus of interest, and identification of the stakeholders and actors that are critical to convene for further mapping and planning activities.

**Guideline #4: Uncover Latent (Invisible) Dynamics and Attractors**

Although our experiences in protracted conflicts tend to be overwhelmingly negative in relation to the other disputants, we benefit from learning to pay attention to anomalies that occur; in other words, to the actions and events that surprise us. Intractable conflicts are so difficult to change because of *attractors*—emergent structures that stabilize systems, making them highly resistant to change—that ensure that any tendencies towards resolution are fleeting at best. However, these cracks in the foundation of our understanding of the conflict and our sense of the other parties are often important sources of information: evidence that there may be alternative patterns operating below our radar. These *latent attractors* may prove to be our best avenues for escaping or otherwise addressing the conflict—if we can identify them.

For example, a surprising finding from a study we conducted with Palestinians and Israelis in 2002 was the impact on participants of early, positive, serendipitous encounters with members of their out-groups (Coleman and Lowe 2007). Just as early traumatic losses were etched
powerfully into the minds of individuals, these positive spontaneous encounters described by participants tended to have an equally powerful effect, long mitigating against their sense of certainty and vilification of the outgroup. The spontaneous nature of these encounters seemed to capture individuals when their psychological defenses were low, thereby allowing the experiences to impact them both emotionally and cognitively.

The potential of latent attractors suggests that any actions in a conflict can have very different effects on three distinct aspects of a conflict landscape: on the current situation (the level of hostility in the conflict right now), on the longer-term potential for positive interactions (latent positive attractors), and on the longer-term potential for negative interactions (negative attractors). For instance, sending riot police into a neighborhood in Baltimore to quell unrest from community grievances over perceived injustices may 1) temporarily reduce violence, 2) increase community resentment and alienation, and therefore the probability of future unrest, and 3) decrease the community’s trust and respect for the authorities, also fostering future unrest.

**Guideline #5: Identify Resonance**

When working with groups and communities, some peacebuilders speak of the value of identifying local areas of *resonance* when attempting to mobilize change (Burns 2007). We define *resonance* in social systems as a form of heightened, shared emotional, cognitive, physical or social energy that results in people feeling and finding connections with like-minded others, and ultimately a sense of congruence and purpose (Coleman, Mazzaro, Redding and Rothman working paper). In other words, resonance is a form of shared energy that gives way in some groups to a sense of unity and shared interests and, sometimes, joint action. Directed group action results when this energy crosses some threshold in a group (beyond their resistance to change). It can be constructive or destructive (or both) depending on the valence and direction of the group’s shared interests (e.g., a mobilized community addressing joblessness or sanitation problems in their community, versus an angry mob addressing grievances against members of an outgroup). Ultimately, resonance is the energy necessary to drive and sustain systemic change.

Working with systemic resonance typically involves identifying, supporting and marshalling waves of motivation and energy in networks of people in service of communal change. There are a variety of ways of identifying resonance, beyond relying on one’s intuition. According to research rooted in transpersonal psychology, resonance can be fostered by empathically attuned clinicians who are trained to better understand and intervene in the context of changing emotional landscapes, with some advocating for trainings that strengthen somatic experiences of
empathy, including how to better communicate at the visual, auditory, interoceptive, proprioceptive, and kinesthetic levels (Lovkvist 2013). In systemic action research, Danny Burns (2011) proposes a framework where facilitators engage through multiple streams and narratives informed by a basic understanding of energy patterns in a system. Burns advocates for an approach where action is seen as important as dialogue, and the act of doing collectively can lead to changes in the landscape and the creation of new “entry points”.

Perhaps the most common form of assessment of group-level resonance is through survey administration. At the most basic level, group members have been measured and compared on perceptions of cohesiveness (Stinson and Hellebrandt 1972), coordination (Faraj and Sproull 2000; Lewis 2003), and energy and pleasantness (Barsade 2002). Analysis involves both assessing whether group members identify similar experiences while participating in the group, and the extent to which the experiences are consistent across group members.

To summarize, enhancing systemic comprehension can be facilitated by asking the following questions:

- What are the intrinsic propensities of the system in which you are working?
- Do the stakeholders and facilitator have a sufficient understanding of the constellation of current and historical forces affecting the conflict?
- Have you been able to focus in on aspects of the system that may lend themselves to feasible actions?
- Are there obvious and less obvious (latent) attractor dynamics at play in the broader system?
- Where is there currently resonant energy in the system? Can this energy be marshaled for constructive change?

Up to this point, our discussion has focused primarily on understanding intractable conflict. We have proposed that enhancing systemic wisdom and working to build conflict intelligence are critical activities for preparing oneself and others to begin to work in these systems. Additionally, we have described less conventional approaches for comprehending these conflict systems through practices such as conducting feedback loop mapping, identifying latent attractors for positive change, and working with resonance at multiple levels. In the next chapter, we shift to a primary focus on engaging with intractable conflicts, in terms of the initial steps for encouraging positive change, and methods for learning and adapting from feedback throughout the change process.

Notes

1 This chapter was derived from a more comprehensive project to develop a Field Book on applying dynamical systems theory and methods to complex problems associated with conflict and sustainable peace; See Coleman, Redding, Fisher, Mazzaro, Straw and Fisher Yoshida (working paper).

References


UNDERSTANDING INTRACTABLE CONFLICTS


