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Playing the Percentages in Wicked Problems: On the Relationship between Broccoli, Peace-keeping, and Peter Coleman's *The Five Percent*

*Howard Gadlin, David Matz, & Calvin Chrustie**

Editors' Note: In the initial joint effort of the Rethinking Negotiation Teaching Project's "Wicked Problems" team (Chrustie et al. 2010), the authors began with the more dramatic, international and violent settings, and worked from there to demonstrate how these problems also operate within less violent environments, such as city politics and the internal doings of a large organization. Here, in an effort to assess for teaching purposes a major new work in the field (The Five Percent, *by Peter Coleman), the authors begin in the opposite order, and scale up their discussion from the most modest of beginnings – a vegetable – to conclude with analysis of one of the most contentious and unstable disputing environments: peacekeeping.*

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Introduction

One could hardly choose a more modest, common-or-literally-garden variety starting point than a vegetable. But one type of vegetable is, as it happens, a peculiarly good place to start a discussion of wicked problems: broccoli.

Consider the humble broccoli from the point of view of structure, and it begins to serve as a metaphor for organization. Each floret is almost a miniature copy of the whole plant: look at a single floret and you know what the larger plant looks like. This feature – self-similarity – is part of what defines a fractal, an object in which the same type of structure appears on all scales. (The famous Mandelbrot set, below, is another view of a fractal: each node is a replica of the larger whole.)
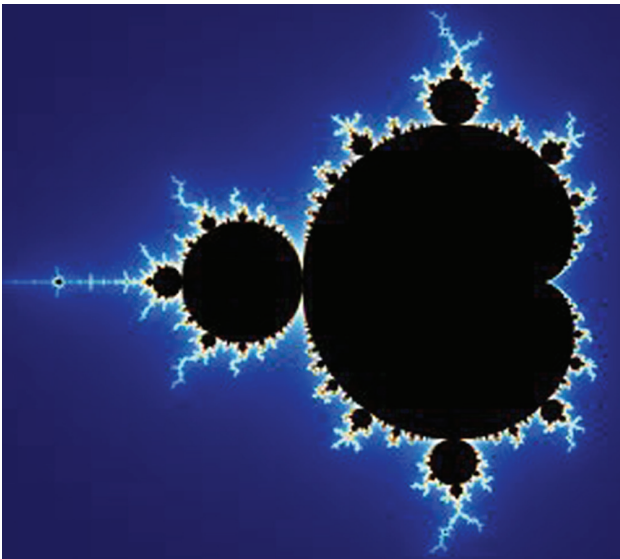
Fractals have turned out to be a useful concept for people who study organizations, because they help describe "one of the identifying

characteristics of a complex adaptive system. The same patterns of behavior or relationship appear in multiple places and times across the organization" (Olson and Eoyang 2001: 109). As a metaphor[1] fractals alert us, when working in complex organizations, to expect similarities in different parts and levels of the organization: similar patterns of communication, similar tensions and anxieties, similar relationships within and across the organizational units and hierarchy. However, recognizing those similarities is not the same as really *understanding* them, or appreciating how they are connected to an organization's problems; and it certainly does not tell us how to address them.

Fractals are one of the more interesting features of *complex adaptive systems*, which have been described and analyzed in an area of inquiry called complexity theory. Without delving into all the fine points of complexity theory, we can point to two other features of problems and conflicts within complex adaptive systems that make them especially interesting for people interested in conflict and negotiation: 1) They sometimes produce problems and conflicts that are seemingly intractable; and 2) These conflicts often seem to be self-perpetuating. These are the sorts of problems that are at the center of Peter Coleman's *The Five Per Cent* (2011). While Coleman's book concentrates on intractable conflicts (the five percent of conflicts that are not amenable to understanding and resolution through the application of conflict resolution and negotiation principles that are successful with most conflicts), his analysis actually has quite profound implications for the study of all complex problems.

Problems within complex adaptive systems are especially fascinating because they challenge our assumption that all conflicts can be resolved, as well as our belief that a path to resolution will be possible if we know all there is to know about a conflict and how it got to be as it is. These problems, referred to by some as wicked problems, resist both understanding and resolution. (Note: not all wicked problems are "intractable," even though they share many of the same features.) In a wonderfully insightful book, Dietrich Dorner (1996: 37-42) identifies four features of complex systems that help us understand why problems within them often seem intractable. First is *interrelatedness* – the existence of many interrelated parts. Any action that affects one part of the system will also affect many other parts of the system, both directly and indirectly. Second is *intransparency* – one cannot discern every important factor affecting a system, at least not in advance of attempting to intervene in that system. Third, *internal dynamics* – the interrelated factors develop and proceed independent of external control. To begin to understand a complex problem we have to observe its development over time. Finally, *incomplete/incorrect*

understanding – complex systems cannot be fully understood, and we cannot know in advance of attempting to intervene how the variables are related to one another and how they influence one another.

Usually when people speak of wicked problems they are referring to large and complex multi-party situations that seem almost impossible to resolve. Certainly, some of the most intriguing and challenging conflicts facing those who would be dispute resolvers are of that sort. Such conflicts seem to have a life of their own, almost independent of the ostensible parties to the conflict. These are conflicts with a history; they are embedded in social systems and structures, and cannot be addressed by resolving individual instances. (See our team's Five Stories chapter in volume 2 in this series, Chrustie et al. 2010.)

And with this, we can now to turn to *The Five Percent*. One of the virtues of Coleman's book is that he provides an incredibly rich, broad, and intricate framework within which we can begin to think critically about the task of handling a wicked problem, without falling into despair about the enormity of the challenge.

What's 5% Worth? *David Matz*

Though he never uses the term, Peter Coleman in his book *The Five Percent* takes the *idea* of wicked problems seriously. (In this chapter, for consistency with this team's other writings, I will use the term wicked problems, even in quotations, where Coleman says "the 5%.") He argues not primarily for a different set of techniques, but rather for a different way of thinking, a way of thinking that grows precisely from the way in which wicked problems differ from ordinary ones. This dovetails rather well with the analysis of other members of this team: see Docherty and Lira, *Adapting to the Adaptive*, and Lira and Parish, *Making it up as You Go*, in this volume. But because Coleman is first out of the gate with a complete book, not to mention an important one, his book deserves to be the primary subject of this chapter.[2]

Coleman is committed to an accurate description of how these wicked problems work, but he seems to be even more committed to sympathy with our limits as humans – as individuals and as collectivities – and the ways in which these problems are wicked because *we* are limited. Perhaps the deepest question in his book is: how can one fight cynicism, how can one stimulate energizing hope in the face of our limits, in the face of the mismatch between the difficulty of the problems and the failings of human beings, in the face of our dismal historical record with such wicked problems? (World War I is one of his favorite examples.) Much of our conflict resolution literature reaches for hope by using slogans, elevator speeches, and four-point steps that fit on the back of a professional card. Like any activist-

scholar, Coleman too is selling an approach; but he refuses to sacrifice his respect for the complexity of the issues to make his sale.

Coleman's model describes what goes on in the head of a party to a conflict, and it starts with this idea: "human beings are driven toward consistency and coherence in their perception, feeling, thinking, behavior and social relationships. This is natural and functional" (Coleman 2011: 68). Coherence in its more extreme form makes clear and comfortable who the good guys and the bad guys are, and it provides "a stable platform for action. These are not trivial things, especially for disputants engaged in exhaustingly difficult conflicts." Coherence, however, can also become dysfunctional. It encourages a party to blot out new or challenging data or options or feelings. Coherence is the enemy of complexity. Coherence is comfortable and seductive; the more intense the conflict, the more attractive the coherence, the more difficult it is to be open to complexity. But the path to the resolution of conflicts lies in complexity. Coleman cites a number of research studies to support the twin ideas that openness to complexity enhances openness to resolution, and that integrating new views and feelings (i.e., embracing complexity) are crucial steps in moving toward resolution.

Coleman draws on a number of ideas from complexity science. He pictures wicked problems, for example, as a dynamic flow of loops in which many parts of a conflict influence many other parts, and in which A can influence B and B can, via C for example, influence A. No one part can be said to cause any single outcome. Linear, cause-and-effect thinking is thus minimized. And as Coleman's charts and pictures illustrate, a wicked problem has a huge number of such loops. The influence-loop approach focuses attention primarily on relationships among the many interacting pieces of the conflict. The book provides steps for creating such a conflict map and several examples of analyses (Coleman 2011: 124), and also describes "visualizing software" developed by Coleman that acts as an aid in describing and analyzing the conflict.

Describing a conflict by using loops and as many dynamics and points of influence as one can devise seems useful to identifying the points at which a party or an intervener can apply pressure. The conflict map also creates intellectual space,[3] and a tool for being as accurate and comprehensive as possible in the descriptive stage. Such a mode of analysis for a wicked problem, embodying and describing complexity, will blur or even obliterate the good guy-bad guy distinctions. It will also, by giving one a sense of overview of everything that is going on, provide a sense of mastery and confidence. Such confidence is essential, according to Coleman's model, to lure an indi-

vidual away from the depths and dangers of coherence. Coleman also provides an inventory of ways to work with the loops to "dismantle negative attractors."

> With concept 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. The goal is to try to open up the system: to provide opportunities to explore and develop multiple perspectives, emotions, ideas, narratives, and identities and foster an increased sense of emotional and behavioral flexibility. To rediscover a sense of possibility (2011: 133).

(The experimental, "try something" overtones of this matches our own team's preliminary conclusions, in chapters 24-27 of volume 2 in this series. This theme is further developed in our colleagues' depictions of their current teaching approaches, in chapters 17-19 and 21 in this volume.)

A further attraction of the book is that Coleman has gathered much research and organized it around his model, giving the findings a resonance they might not have standing alone. One insight reported is that "disputants in an ongoing relationship need somewhere between three and a half to five positive experiences for every negative one, to keep the negative encounters from becoming harmful" (Coleman 2011: 98.) This idea gives the conflict map a welcome hint at quantification and shape.

Some of the ideas Coleman adopts are intriguing, though also puzzling. He defines a wicked problem as occurring when the influence patterns pushing toward coherence become "self organizing. This means they will continue to grow and spread, no matter what anyone tries to do to stop them. They become virtually impervious to outside influence. . . . When this occurs, conflicts cross a threshold into intractability." (p. 85.) What does this mean? All conflicts are to some extent out of the control of any individual, because the other party almost always holds some form of veto. Does Coleman mean that a conflict becomes intractable (i.e., a wicked problem) when a party loses control of itself? If so, what is the value of Coleman's book to a party? Is there some notion here about degrees of control?

The model does present some deep difficulties, difficulties inherent in wicked problems. The model describes the workings of a person's mind, and it gives an intervener with the goal of changing that mind a theory from which to work, i.e., opening it to greater complexity. But what does it do for the party? It is a strength of the theory that it illustrates the powerful incentives for a party to cling ever tighter to

coherence and, as the conflict wears on or grows in intensity, to reject complexity. But how does a party get the willpower to overcome this pull? Coleman acknowledges this difficulty when he says that

> the press for certainty and coherence is a basic tendency in life greatly intensified by conflict, especially [wicked problem] conflict. And it often contributes to our total misreading of events. This tendency of course is *nearly impossible* to be mindful of when we are caught up in a [wicked problem] (2011: 99).

Moreover, while the model does seem more useful for an intervener who, through interviews of many players, has access to the complexities illustrated in the charts and loops, does a party, even one who wants such complexity, have access to the necessary information? Perhaps the implied point is that only an intervener can help a party think through the problem.

For someone who has worked with people in the thrall of a wicked problem, this book provides a completely plausible, intuitively attractive, description of what is going on in their heads. The insistence on spelling out the flows of influence – toward coherence, toward complexity – are compelling. What the theory leaves out, however, is any way of assessing which influences are more important than others. Which are worth the effort they will take? Which might take priority in time? Coleman does give it a try (2011: 139) when he identifies foci like "local actionables" (i.e., do what you can do), support things that already work toward complexity, and (most interestingly) identify "individuals who . . . embody the different conflicting identities and tensions inherent to the conflict" (2011: 141).

Elsewhere in the book Coleman says that making priority judgments is the party's job – i.e., the theory will not help out much. In a book emphasizing complexity, the relative absence of clues about how to navigate among so many choices is a major inadequacy. This is another way of saying, as Coleman does, that too much complexity is as problematic as too much coherence, though for different reasons. But the book is therefore less strong on helping an intervener cope with the prescribed increase in complexity. Coleman worries that all of our usual lenses for seeing complexity filter out too much or the wrong things. But by failing to provide an alternative lens, and a rationale for why it is better, he leaves the option of no lens. Staring a while at any of his charts will be quite adequate to induce a longing for *some* lens.

I would propose that in sorting out such priorities, the impact of conflict must give a special role to the uses of coercion, and the implications for control of self and control of others: the more wicked the

problem, the higher the perceived costs of "losing," the more significant the impact of coercion. Our field is allergic to the uses of power, and often ignores it or defines it out of the problem.[4] Coleman's model does not identify power as a special concern, but it does leave room for such concerns. I would suggest that the appropriate place for its consideration is in the prioritizing of ways to influence complexity.

The model makes room for, but I think substantially underestimates, the fact that almost all individuals in wicked problem situations are in organizations that exist to some extent with the purpose of *re-enforcing an individual's commitment to coherence*. To change the individual, one must change the organization – exactly as Howard Gadlin describes below. About this, the book is silent. As it also is about the yet larger question: if the wicked problem is large enough to engage significant parts of the society, how does this model lend itself to a process of social change? The tools we have for making social change are essentially those of conventional politics plus Saul Alinsky. We use leadership, political parties, pressure groups, demonstrations, coalitions, and public decision-making. Would Coleman's theory work in the political realm? Though this critique may be asking no more than that he write another book, I would like to express some skepticism about whether the nature of politics is consistent with the enhancement of complexity. (For more on a related theme, see Honeyman et al., *The "Deliberation Engine,"* in this volume.)

Scaling up the Fractal to Organizational Level: *Howard Gadlin*

For people who work in organizations, problems and disputes of the kind we address here provide both a challenge and an opportunity. A challenge because they divert attention away from the mission of the organization; an opportunity because they can offer a window into the dynamics of the organization, provided one does not get totally absorbed in the idiosyncratic qualities of each particular dispute or problem.

Usually when we think of "individual" problems or conflicts we also think in terms of the psychological characteristics of the particular individuals involved in the problem situation, and we focus on those characteristics and the nature of the relationship or interaction between the individuals involved. In some instances we also take into account the impact of the specific problem and others in the organization; but generally, the problem is seen as a reflection of the qualities of the people involved. Yet we can also view individual problems or disputes as *reflections of organizational dynamics*, symptoms as it were of the structure and dynamics of the organization. To do this, we have to

direct our attention *away* from the compelling qualities of the parties to a dispute and the drama of the issues in conflict, and attend instead to aspects of the situation that are not immediately visible.

Typically, problems that are thought of as "individual" disputes, such as an allegation of power abuse by a supervisor or a conflict between two co-workers in a laboratory, are seen primarily as something to be resolved. There is work to be done and the conflict is a distraction. But often, these sorts of disputes reveal the impact of features of the organization to which managers and employees pay little attention, even when faced with problems, like these, that are seen as interfering with attending to the main purpose of the organization.

Let me illustrate by describing my work. I am an ombudsman, and as such I have two major areas of responsibility. The first involves helping individuals who come for assistance to address and resolve their concerns, problems or conflicts. The second involves identifying systemic problems within the organization – policies, practices, and procedures that regularly elicit or exacerbate tensions, conflicts and/ or dysfunction – and bringing those problems to the attention of the appropriate organizational leaders, and then pressing them to attend to those problems.

If one attends to individual cases with an eye toward identifying and understanding the contribution of systemic factors, the task of "resolving" the matter is broadened, and even redefined. There is a distinction between settling a dispute and resolving conflict. Settling a dispute is generally a matter of helping the parties involved come to an agreement, or reach an understanding that satisfies their individual concerns. Resolving a conflict, I would argue, almost always involves addressing systemic factors that underlie, elicit, and sustain individual disputes. Settle a dispute without resolving underlying conflicts and a new dispute will pop up in its place. If we are not to be limited to dispute settlement, we need to address individual disputes with an eye toward understanding them in the context within which they emerge and exist.

One way to move toward such intervention is by asking an expanded set of questions about the dispute, questions that go beyond identifying individual motives, interests and positions and that are designed to uncover the ways in which the dispute is embedded in and reflects the organizational context within which it occurs. Here is such a set of questions, grouped around five aspects of a dispute that will have to be understood if the underlying conditions of the dispute are to be addressed. The questions in **boldface** are designed to point to systemic factors.

1) Problem
   - What are the issues to be addressed?
   - What are the conflicts to be resolved?
   - What are the time constraints on the situation?
   - **Is there a policy or procedure contributing to this problem?**
   - **What systemic organizational issues does the problem illustrate?**
   - **What features of the organization are fueling or sustaining this conflict?**
   - **What does it mean that this conflict has arisen? Might this conflict be representative of similar/related issues elsewhere in the organization?**

2) People
   - Who are the key parties to the problem?
   - What are the perspectives of the disputants?
   - **Do the parties or perspectives "represent" the concerns of others who are like them within the organization?**
   - **Who has a stake in keeping things as they are?**

3) Power
   - How is power distributed among the disputants?
   - What power do the individual disputants have?
   - What does each disputant have to gain or lose?
   - Who most needs the conflict resolved?
   - **How will addressing/resolving this conflict affect the power structure of the organization?**
   - **Is there an organizational history to this situation?**
   - **What are the politics of the situation?**

4) Positions/Interests
   - What is each disputant's opening position?
   - What interests and concerns are informing their positions?
   - **What organizational interests are reflected in these interests?**
   - **What organizational problems are reflected in these interests?**
   - **How is the reward or incentive structure of the organization related to this conflict?**

5) Process
   - What intervention possibilities exist?
   - Which interventions are best suited to the concerns of the disputants?

- **Does this situation call for systemic intervention?**
- **Which intervention will best lay the groundwork for systemic intervention?**
- **What sorts of systemic intervention would be most appropriate?**

It will be immediately evident to the reader, when she encounters Calvin Chrustie's analysis below, that so long a list of questions is a good illustration of his argument for a conscious "intelligence capability." This is implicated even in the ostensibly "manageable" environment of a single organization and a single presenting issue. In more complex and unstable environments, a full-blown intelligence team is highly desirable – yet even in the more conflictually modest circumstances I describe here, the press of time, the unwillingness of many participants to delve into sensitive areas, and conventional assumptions as to the role of a mediator can easily militate against pursuing such questions to the point of getting useful answers. I recognize that I am fortunate in having an organizational mandate to press for such answers; not every conflict professional presented with similar problems has similar organizational support. But perhaps attention given to the subject, such as in the current stream of writings, will eventually help to form the intellectual basis for a broader claim on the necessary organizational resources (not to mention the necessary organizational grit).

Identifying the relevant policies, practices, distributions of power and reward structures within an organization helps us appreciate the context within which individual problems and disputes take form. But these elements do not, by themselves, allow us to fully grasp the dynamics of interconnections among the disputing people or departments within the organization. Nor do they help us to appreciate the role played by that dispute or problem in maintaining and reproducing the organizational dynamic. As we approach an individual problem with an eye toward possible intervention, we must keep in mind that

1) Every person and organizational unit (department, division, etc.) is part of a larger system;
2) All are reacting to and contributing to tensions, problems and conflicts in the system;
3) Where in the organization the problem develops depends on where and how they are interconnected to the others in the system;
4) Problems or conflicts that develop are often an exaggeration or complication of some feature or process in the system that contributes to the stability and continuity of the system;

5) Problems or conflicts that develop are often the "solution" to problems or conflicts that have not been recognized or identified as such.

Let me illustrate with a brief case history. Two professional level employees, each the head of a branch in the same division and each with highly specialized technical knowledge, were referred by their supervisor to my office, with the request that I work with them to help resolve what appeared to be intense personal conflicts and animosity. Their two branches had to work very closely together, and each branch was dependent on some of the output of the other branch in order to be able to do their work properly. The ongoing conflicts between the two branch chiefs were affecting the work quality and output of both branches. The administrator who referred them was especially anxious about their dispute, and wary of trying to help address it, because of the identity differences between the disputing parties. One was a Muslim man, the other a Jewish woman. It was clear that the administrator believed/feared that it was these differences that fueled their conflict and that, in some way, their apparent animosity was about those differences.

When I met with them, the tension and mutual dislike was immediately apparent, although at no point during the time I worked with them did either of them give any direct indication that religion or gender was, for them, a salient factor. But from the beginning, my questions of them focused as much on the systemic issues, as illustrated in the five elements of conflict above, as it did on the details of their individual dispute. However, in addition to inquiring about the history and organizational context (policies, practices, etc.) of their conflict and observing their interpersonal interactions, I spent a considerable amount of time asking about the specific details of their conflicts: what *exactly* did they fight about, when did such fights arise, how did others react when they fought, who benefited the most/least, and who suffered the most/least when they fought? One aim of many of these questions was to help reveal

1) If there were (unrecognized) positive organizational *purposes* being served by the dispute and tensions between the two; or
2) If there were (unrecognized) organizational *failings* that were being compensated for by the dispute and tensions between the two.

One consequence of the intervention was that it enabled them to reframe their understanding of what the fights were about. At the beginning each had raised sharp criticisms of the other's work and managerial style, and also of the other's role in the division. He focused on what he felt was the personal nature of her criticisms, pri-

vately and publicly, of him and his work and the work of his staff. He saw her as undermining the ability of the branch chiefs to function as a team, and felt the need to support others whom she also criticized. She focused on what she felt was a lack of rigorous standards on his part, and attributed deficiencies in some of the division's products to failings of his team. However, as we examined their conflicts in the broader organizational context they began to attend to features of the division that had never been discussed before.

One of the most striking was that there was no process and no opportunity for the branch chiefs to gather and critically examine and improve the work being done in their division, the processes employed for allocating tasks, and the methods of communication and collaboration between branches. In addition, the branch chiefs were not receiving critical feedback from the division director, either on a project-by-project basis or in the annual performance evaluation reviews that were (on paper, at least) required. As these observations accumulated, the disputants began to see their disputes as filling an organizational void. Any work group and every employee needs to be able to assess their own performance and to receive feedback from others about their performance. As we analyzed the situation, they began to see that their dispute was a symptom of an organizational problem that had not previously been either identified or addressed. They agreed that they would go together and speak about this with the division director (the very person who had referred them). They also came to see – with some assistance from me – that they each had responded differently to the same organizational failing – the lack of crucial team reflection and feedback: she, by assuming the role of critic and he, by assuming the role of maintainer of group cohesiveness. They agreed, again with some guidance from me, that if and when the division did correct the underlying problem, *she* would refrain from taking the lead in offering critical remarks, and *he* would attempt to offer criticisms as well as support at branch chief meetings.

This agreement and reframing did not mean that their animosity was gone and a collegial relationship established. The combination of past history and strong personal differences made a positive relationship unlikely. But the reframing reduced the burden that their personal relationship had to carry. No longer did it have to serve as the vehicle for an organizational failing; it was reduced to a manageable personal tension and dislike that did not threaten the effectiveness of the larger work group.

Notice that in the example above, while we see the impact of features of the larger organization in what is first presented to us as "a dispute between two coworkers" our steps toward resolution have to

proceed on two levels – the dispute between the individuals, and the *system* within which their conflict arose. However, one of the complexities of organizations is that "successful" interventions at the level of the individual can sometimes be at odds with "successful" intervention at the systems level. This is especially likely if organizational polices are designed so that they address systemic problems as if they were individual issues.

Think of the example of racial discrimination. While it is generally acknowledged that racial discrimination is a systemic feature and should be against the law, racial discrimination is primarily addressed through the processes by which a given individual who believes they have been discriminated against may bring formal charges (within organizations) or lawsuits. Essentially, these charges have to be supported by proof of prejudicial thinking or motivation on the part of the person charged. But recent research demonstrates that, although some direct prejudice-based discrimination still exists, increasingly important factors are the much subtler social processes and patterns of exclusion that are not grounded in overt racial prejudice (Sturm 2001). If this is true, then it is quite likely that the very processes by which job discrimination complaints are pursued *exacerbate* the tensions between those who feel discriminated against and those who believe discrimination is a thing of the past. The EEOC reports that roughly one percent of allegations of racial discrimination are upheld in court. In my experience, most of the minorities interpret this finding as further indication of racial discrimination and of the existence of a system that is stacked against them. At the same time, most non-minorities interpret these results as an indication that allegations of racial discrimination are generally without foundation and that racial discrimination is no longer a problem. The subtler elements of a continuing problem go unremarked on both sides, and therefore the central issue remains largely unaddressed.

A similar problem exists within organizations that have dispute resolution processes designed to address complaints of racial discrimination through mediation. An individual allegation of discrimination might be negotiated so that a particular dispute could be "settled"; but that certainly does not mean that the broader issue of racial discrimination has been resolved. Indeed, typically the person bringing the complaint of discrimination is convinced that he or she has been treated that way because of his or her race. The person charged believes with equal vehemence that that is not the case. It is rare that a mediated agreement includes any sort of recognition that discrimination took place. So each of the parties leaves the dispute that has been ostensibly "settled" without an answer to the fundamental question

that led to the complaint – "was this person discriminated against?" – and, I would assert, without a fundamental change in their basic belief about whether or not racial discrimination is a factor. Even if we grant that the mediation process has enhanced the parties' understanding of each other and the reasons for their conflict, we would not fool ourselves into believing that we or they understood the broader issue, or that we knew how to resolve it.

The point here is not to denigrate mediation programs that attempt to address complaints of discrimination, or the well-intentioned people who design and implement such programs. What is useful about the dilemma of these programs for our purposes here is that they illustrate on a thoroughly mundane, everyday level the nature of wicked problems, and the complexity of the effort to attempt to solve major social problems – especially those that are anchored in long-standing social conflicts.

We will conclude this chapter with a discussion of what the emerging analysis of wicked problems seems to offer for one of the largest-scale disputing environments, i.e., peacekeeping.

The Fractal Blows Up: *Calvin Chrustie*

One of the practical uses of fractals has turned out to be in digital photography: fractals are the mathematical basis of software that now allows an image to be enlarged enormously, without the usual extreme loss of focus and sharpness.[5] Perhaps there is a workable analogy here, as we turn our attention to a part of our team's experience that is particularly close to Coleman's central interest (intractable conflict) – i.e., peacekeeping. Peacekeeping, as I use the term, is broader than some may think: it includes managing the more complex community conflicts and disputes, such as those over natural resources, as well as managing international violent conflicts, i.e., wars.

Both David Matz and Howard Gadlin in this chapter have provided valuable insight and analysis of Coleman's writings. Similarly to David, I have found Coleman's book insightful and helpful in its comprehensive understanding of how one should think when relating to wicked problems. Coleman's detailed analysis of the multifaceted elements at play is impressive. I would like to relate this discussion to my past two decades' experience as a practitioner in a range of conflicts, including interpersonal and workplace conflicts, community conflicts, and more complex environments all the way up to peacekeeping. In doing so, I must acknowledge the limitations of a first effort to codify twenty years of experience. At this time I can offer only a preliminary sketch of this difficult area, and I hope that the reader will be prepared for a good helping of errors and omissions.

I offer these thoughts in public at this stage in hopes that others will broaden, deepen and help me clarify them.

Our chapter's opening discussion about broccoli really is a good place to start thinking about wicked problems; the self-similarity that defines a fractal resonates with me as a helpful metaphor for understanding the ways the structure of complicated problems replicate themselves. This leads me to look at the structure of a wicked problem as needing a matching *process* structure, one specifically designed to deal with that specific problem.

In this next portion, I hope to expand on some conceptual frameworks that I have found useful when working within 5% conflicts. While the complexity of these disputes will often escape the best efforts of practitioners, including those who consider applying some of these concepts to be discussed, I have found these conceptual tools (or models or frameworks, depending on how you look at them) useful in enhancing if not the resolution, at least the mitigation of these conflicts. While there is an exhaustive list of practical considerations that *could* be applied, including many of those written about by other well known practitioners such as the United States Institute for Peace Peacemaker's Toolkit (see http://www.usip.org/publications/peacemaker-s-toolkit), it is my intention to focus here on one model that I have found instrumental in managing and mitigating wicked problems: the Structure→Strategy→Process→Outcome model. However, before explicating this valuable model, I offer some thoughts on the necessity of sophisticated conflict intelligence capability and the dangers of oversimplication, particularly the danger of focusing too narrowly on theory rather than pragmatic response.

Conflict Intelligence Capability

According to Larry Woocher, writing in a special report on conflict assessment and intelligence analysis for the United States Institute of Peace, "[o]ne of the axioms of international conflict management and peacebuilding is the importance of developing a deep understanding of a situation before acting" (2011: 2). Accurate conflict analysis is indeed critical. But the conflict management's field focus on analysis has come at a high price – inattentiveness to creating and maintaining organizational *structures*, accompanied by robust processes that allow for "intelligence" to be maintained throughout all phases of engagement, not just during an initial analysis/assessment phase. This includes direction to the intelligence teams, collection of information, processing the information, analysis of the information and timely sharing and distribution of the information.

Risks of Oversimplification: What Should a Practitioner Actually Do?

I concur with Coleman as to the likelihood of oversimplification of wicked problems. My personal experience suggests that so-called "experts" often use skills and tactics and processes, sometimes as a mediator or negotiator, or facilitator, or with a small group of negotiators, mediators or facilitators, without looking at the broader needs dictated by the complexity of the issues or problems. Also consistent with David Matz's review, I think Coleman's effort at describing the thinking required to engage in resolving complex/wicked problems, while partly defined in the book, leaves a certain degree of ambiguity as to what a practitioner is actually supposed to *do*. So while his analysis of the problems is excellent, Coleman's treatment of practical action is missing something. He talks about the dangers of oversimplification, and also the importance of not over-complicating matters. His treatment, however, is that of a theoretician: it is insightful and complex, but at the expense of pragmatism – at least, from the point of view of someone who must actually handle these cases.

Below, I will use one such case setting I worked in – the Bosnian war – to illustrate this. But first, I will use Howard Gadlin's fractal approach to describe what I see as a pragmatic response to an actual conflict that is also to be addressed using Coleman's larger theory. I believe my take on this is quite consistent with our earlier description of broccoli.

Let us start with the smallest unit operating in such a conflict, the individual negotiator. I would begin by highlighting the importance of *humility* as a basic characteristic in the negotiator or other professional handling a wicked problem. This includes understanding that I, the negotiator, am not a particularly central figure, just a piece of a larger mechanism for dealing with the conflict. I look at the conflict as a theater, and I conceive of my own role not as actor, director or star, but more as a stage manager, facilitating the production and outcomes of the theater experience. I focus on building the sets, guiding the actors; I have enough distance from the actors to provide some objectivity and allow for strategic decision-making, and with the benefit of perspective (consistent with the teachings of Sun Tzu), to allow for engagement and identifying opportunities that are consistent with the philosophy of aikido. I use intelligence and information to assess when to engage, and when not to engage and instead to "go with the flow of the river." The structure I favor allows for strategic oversight, not the continuous engagement that often distorts and crowds the perception of the actors. This, I hope, mitigates the risk identified by Coleman as getting caught in the web of coherence, complexity and emotional traps.

Structure→ Strategy→ Process→Outcome

Avedis Donabedian, in pioneering analyses of health care, has written about *structure* (how the system of care is configured and descriptions of its components) and *process* (how care is delivered) as influencing *outcomes* (including mortality, functional status, quality of life, and patient satisfaction) (Peters et al. 2009: 6-7; see generally Donabedian 2002, Donabedian 2005, and closer to our field, Miller and Dingwall 2006).

When I first saw this particular triumvirate of concepts, it rang true to me for purposes of analyzing my own experience in conflict management. I have since tried to use it consciously. Along with this I have relied on some concepts derived from organizational behavior theory. These include the ostensibly straightforward, but often mis-applied importance of consciously using structures and processes to enhance efficiency and effectiveness. This parallels some of the writings in the last decade or two in the field of conflict management systems by Roger Fisher and William Ury (1991), and then William Ury, Jeanne Brett, and Steven Goldberg (1988). The concepts I have been trying to apply are also closely related to those that Leonard Lira, Jayne Docherty and our other colleagues in this team have been writing in this series. The common factor, again, is the necessity to create a structure within which an *appropriate* process can be created to obtain the necessary outcomes. These structures obviously need to take into consideration the fractal nature of conflict earlier highlighted.

Yet contrary to all of these conclusions, in practice we often focus on tactics and processes – or we focus on theory without reference to practice, as highlighted by Coleman in his book. One of the biggest gaps between useful theory and effective practice is the importance of structure, and professionals' common failure to focus on that.

An example, of course, is essential, if the reader is to understand what I am talking about. Unfortunately, my recent and current examples, including First Nations issues in Canada and elsewhere, handling major protests over G8 meetings, peacekeeping problems, and issues in the Horn of Africa (where I have worked with kidnapping issues) raise continuing security concerns, because some of the structural and process elements, not to mention the outcomes, would refer to classified information. Accordingly, I will use a more historical example, from my earlier experience in Bosnia. My personal point of reference is the peacekeeping field, a context that I recognize most people (especially most civilians) are simply unfamiliar with. The complexity of negotiating in a war context is unique. Civilians typically think of negotiation and war primarily in terms of high-level diplomatic negotiators trying to end the war. Thus, for example, they

might be familiar with the press coverage of the Dayton negotiations resulting in the signing of a general framework agreement for peace in Bosnia and Herzegovina in 1995; but they never see or likely think much about the daily negotiations that we were doing on the ground. At the time, this example, like my other experiences there, did *not* use the structure/strategy/process/outcome model, because I was then unaware of it. I believe better outcomes would have resulted, at least in part, if that model had been employed.

It might also help to reflect here that the military recognizes a distinction between three levels of engagement in a conflict: strategic, (long term plans/objectives), operational (short to medium-term objectives/activities, including the coordination and synchronization of tactical activities and processes), and tactical (the day-to-day engagement and management of linear processes). Military doctrine focuses most on the critical decisions at the middle, operational level. I have learned from this that our responses need to be commensurately focused there. Thus, effective thinking is not primarily about the group of ten tanks on the battlefield in the Middle East moving toward a border. That is "tactical," those ten tanks. The coordination with *other* tanks, with the air force, with an intelligence operation dispersing misinformation among the enemy, all the moving parts that together are greater than the sum of those parts; that is the operational level, and that is what we must primarily concern ourselves with as peacekeepers, just as the military does in its domain.

In chapter 25 of volume 2 in this series (see Chrustie et al. 2010: 456-458), I described the nature of my work in Bosnia as a wicked problem:

> . . . The warring parties themselves were ambiguous in their commitment to resolving the exchange issues during the course of the conflict. Many warring military and paramilitary groups continued to capture, kidnap and withhold the casualities of war because the prisoners and even the deceased were seen as valuable commodities at the various negotiation tables within the larger context of the conflict. In some instances, the warring parties would collect human beings and even the remains of casualties in order to build their own power vis-à-vis other negotiations. They used the fate of the human beings (alive or dead) under their control to advance their interests in negotiations over freedom of movement, ceasefires, claims to territory and other issues.

> Even though some leaders of the warring factions were clearly violating the Geneva Convention, others among the leaders exhibited independent thinking similar to that shown

by [United Nations Protection Force] (UNPROFOR) person-
nel who tried to assist with the exchange negotiations. These
leaders were genuinely seeking the international communi-
ty's support and assistance in the mediation and resolution
of the exchange issues. But the net result of the pressures
against negotiating issues of exchange was the creation of a
fragile and tenuous negotiation process that was subject to
numerous negative influences.

The issues were not easy to resolve or even to frame ef-
fectively for negotiation. For example, the parties, including
individual negotiators directly involved in the process, were
torn between their long-term and short-term interests. POWs
and hostages, if released and turned over, were potential wit-
nesses to war crimes and other human rights violations. Even
the deceased could provide evidence of mass murders and
genocide. And the allegations were likely to be leveled at some
of the key military and civilian leaders, including some indi-
viduals associated with the exchange process. Achieving the
release of one's own people was a political coup, but releasing
the people held by one's own group had the potential to create
other problems, including an escalation of tensions and fur-
ther violence when the evidence carried by the released indi-
viduals (alive or dead) came to light. Whether the resolution
of a POW, kidnap or body exchange was defined as the "end
game" or as a "means to an end," serving other negotiation
objectives was also fluid. Most often, it was difficult to ascer-
tain what the interests of the parties really were, due to the
complex web of influencing factors that were ever-changing
and unpredictable.

Generally speaking, negotiators are taught that a certain
level of transparency and information sharing is one key to
the negotiation process. But the exchange negotiations were
complicated by the high levels of risk associated with sharing
information. It is difficult to negotiate effectively when, as
happened to Calvin, even telling Side A whom he was meet-
ing with on Side B resulted in Side A mounting a large special
forces operation to capture friends and family of the nego-
tiator for Side B. This was a dramatic situation, but overall it
was not unusual to have a negotiation process lead to other
kidnappings or loss of life, as each party tried to use coercion
and threats to alter the decision-making of the other party.

The behaviors described above are difficult to compre-
hend if they are not set in the context of history. Many of

the parties involved as either hostages or family to the hostages, and even many of the negotiators, were survivors or first generation children of individuals who had survived the concentration and POW camps of World War II, including the extermination camp of Jasenovac. And if they were not affected by historical traumas, many of the negotiators had witnessed recent violence and experienced deep personal loss, including the murder of relatives, as a consequence of the ongoing war. The relatively fresh memories of death camps, torture, and brutality and the immediate experience of violence gave rise to intense feelings of fear and hatred amongst the parties. For example, a senior Serb civilian was kidnapped in a small village near Rajic. The brother of the elderly Serbian male kidnapped, his only living relative, sought Calvin's assistance in securing his brother's release. Both the hostage and his brother were in their late sixties.

Months of negotiation ensued, during which the brother of the hostage shared with Calvin that both he and the hostage were orphans from a local WWII concentration camp. When the camp was liberated in 1945 by the Allies, a Yugoslavian couple adopted them, because the boys had lost their family in the concentration camp. Half a century later in 1993, one of them *again* found himself in a detention camp. The tools of active listening and expression of empathy seemed wholly inadequate for working with such traumatized individuals. And the task of negotiating a resolution or series of resolutions capable of bringing the POW and kidnap crisis to an end seemed well out of reach of individuals equipped only with the toolkit of negotiation skills provided in typical "Negotiation 1.0" courses and trainings.

Furthermore, a victim image frequently invoked by language used in discussions of negotiation teaching (e.g., in the paragraph above, deep personal loss/trauma/fear) can be inadequate or mis-leading to describe some of the people one must negotiate with, who may be better described in terms of "players." For example, Calvin recalls attempting to secure the release of a certain high-ranking Croatian military officer who was kidnapped in 1992. A meeting was set up with a senior Serbian military intelligence officer to secure a response from the Bosnian Serbs as to their willingness to release the Croatian general, then being held in a detention center. The meeting was with one of the aides to the infamous top Bosnian Serb General Ratko Mladic – to this day, wanted

for war crimes in the Hague, but uncaptured.[6] The Serbian Colonel started by asking, "Who was the first victim in World War II?" Calvin responded, "I don't know." The Colonel looked across the table and asked "Who was the first victim in the Korean War?" Again, Calvin responded, "I don't know."

The Colonel continued on with several more wars over several more decades, with the same response. He then sat up, and with a serious and respectful tone, through the interpreter, stated, "The first victim in all these wars is the same, the *truth*." A thirty-minute discussion ensued, which Calvin quickly realized would be unproductive. What emerged (i.e., the message that General Mladic, via his aide, effectively delivered that day) was characteristic of Calvin's experience not only in the former Yugoslavia but in other conflict zones, including Iraq, Israel and East Africa: there is often layer upon layer of lies and misinformation, to protect the truth for a multitude of strategic reasons. The implication for conflict practitioners is that in these conflict-ridden environments, the ability to analyze the issues, the interests, the positions and most important, the truth is often difficult, if not impossible.

While the escalation and unresolved issues related to POW exchanges, kidnappings and other related issues occurred within the context of the larger conflict, history reveals that they were an important factor in *fueling* the conflict. In Coleman's language, these factors contributed to a negative "basin of attraction." Indeed in other conflicts, even where the actual substantive conflict has been mitigated to a significant degree, these kinds of "attractors" have often continued for years thereafter, and may even fuel the resumption of conflict. In World War II, Vietnam and other wars the POW issues, for example, continued long after the main conflict was over.

The example above took place, in my view, in the *absence of any organized analysis* of how such issues affected the former Yugoslavia. My on-the-ground perception was that a year and a half into the war, any activities conducted by the UN in this regard were haphazard and driven by the goodwill of individuals, versus part of the formal mission and strategy of the UN. In my dealings with the heads of the Exchange Commissions for two of the three warring parties, Dragin Bulajic (president of the Bosnian Serb Exchange Commission) and his counterpart, Ivan Grujic (president of the Croatian Exchange Commission), both officials repeatedly shared their frustrations with me concerning the lack of engagement, focus or support on the part of the UN. Its engagement in a more thorough manner in mitigating

these critical conflictual issues would certainly have helped on a direct level. I believe it would also have helped lessen the tensions on a larger level. Both these senior representatives of the warring parties, certainly, acknowledged and identified the importance of resolving these issues *in the context of the larger conflict* in bringing peace to their respective countries.

Yet instead of focusing on these issues, the typical analysis of the conflict – consistent with Coleman's thesis – was focused on reporting on the *symptoms* of the conflict (particularly in the form of Daily Situational Reports, which included the number of mortar impacts, the number of troop movements, paramilitary operations, weapons smuggling and any other "significant" events). In other words, the reporting was focused on the most tactical activities, while there was very little analysis of their relationship and the relationship of other factors to the underlying conflict, and specifically to those factors that, if they did not initially give rise to the conflict, certainly perpetuated it – such as, in my view, the kidnap, POW and body exchange issues. This focus is consistent with what an individual policeman charged with restoring immediate order might do; but it has little to do with addressing the root causes and drivers of the conflict. In that respect, the UN approach was haphazard, linear, and often, purely reactive in its response to an incident (e.g., a request from local authorities to engage in an exchange), versus any kind of systematic approach.

In contrast, a systematic approach would have demanded a consistent analysis of the issues, with a resulting relevant strategy, followed by a structure and various processes to match. (I will expand on these critical elements below.) The normal response, by contrast, was that a local military or government official would ask for something, and the UN would respond – but with no strategy underlying the action, and no appreciation of the relative significance or insignificance of any given issue. This fits with Coleman's discussion of responding to symptoms, not causes. In most cases, as Coleman would predict, people responded to complexity by avoiding it, because it was overwhelming.

The structure→strategy→process→outcome model, however, provides a way to think about how to affect these "attractors" in a constructive way. It is my own modification of the more typical structure→process→outcome model – though as a practitioner, I am well aware that theorists may have developed something similar or even further articulated, but in which I am not schooled. The following diagram represents the model, and is simple enough, on its surface:

Structure→strategy→process→outcome.
While such a diagram might imply that the *sequence* is s-s-p-o and
then stops, however, this is not actually intended as linear, but as re-
cursive, for all the reasons outlined by Lira and Parish, in *Making it up
as You Go*, in this volume. Ongoing analysis and the fluid nature of the
conflict dictate what the actual next step will be.

Structure, including the necessity for conflict intelligence applications

On the ground in Bosnia, the command structure was linear (in fact,
geographically based), an approach that devalued ongoing intelli-
gence capability and undermined the ability to respond effectively to
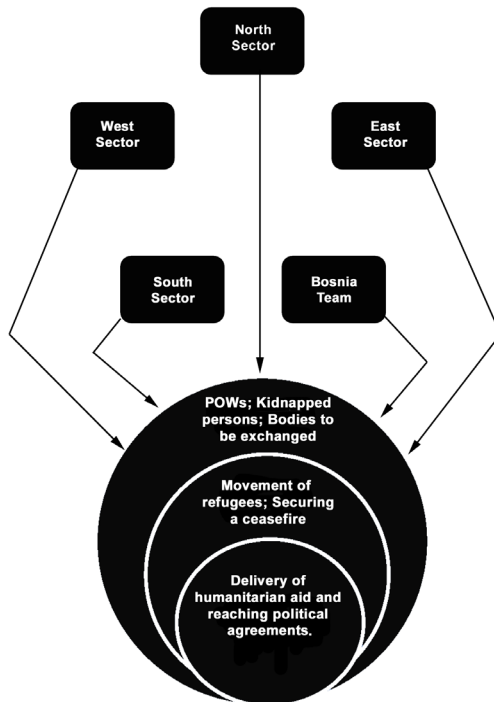a constantly changing, and often, chaotic environment.

Figure 1: The Bosnia Command Structure. (For graphic simplicity, the arrows (represent-
ing each sector's efforts) are not shown as reaching all three "subject" circles described in
the text below, but of course they did in practice.)

Individual sectors lacked any concrete internal team structure.
Moreover, to my knowledge, there was little or no strategic communi-
cation consideration in the peacekeeping effort in Bosnia. What was
occurring and being reported in the field was at the operational and/or
tactical level, including the negotiations relative to three very distinct
sets of problems, each involving ever increasing numbers of people

and complexity: 1) individual POWs, kidnapped or missing persons, and bodies to be exchanged; 2) movement of refugees, ensuring freedom of movement and securing a ceasefire; and 3) delivery of humanitarian aid and reaching political agreements.

In Figures 2 and 3, I offer what I believe to be a much more effective structural approach. Here, the structure is organized fractally, with each sector having its own robust conflict intelligence and analysis capability and conflict team structure.

First, as detailed in Figure 2, each sector would have an internal conflict team structure that would promote/encourage communications both intra- and inter-sector. External support groups such as
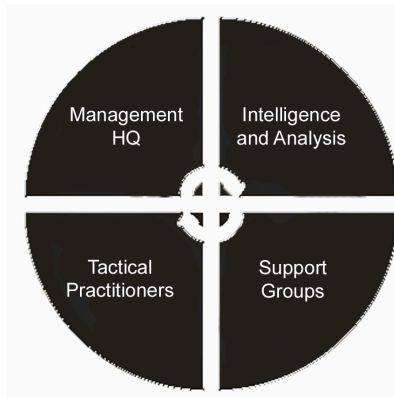

Figure 2: Proposed Conflict Team Structure Within Each Sector

cultural advisors, strategic alliance groups, and third-party intervenors would have a specific report and control point (represented here by an individual quadrant), as would tactical practitioner team members such as negotiators, mediators, and facilitators.

In Figure 3 (see next page), the angled arrows represent each sector's recursive intelligence collection and analysis, designed to focus at the strategic level of communications. As even this first attempt also shows, a structure that could credibly be used in managing a wicked problem is itself likely to be somewhat complex and multifaceted. But that complexity allows for a host of strengths, not just the predictable drawbacks of complexity. The strengths include a particularly critical element: ongoing and "predictive" intelligence analysis (as opposed to the above-described status reports of symptoms of the conflict). Conflict by its very nature demands prediction; yet wicked problems make prediction difficult, without a robust structure that includes the essential elements for conflict analysis, such as collection of information/ research, processing that information, analysis, and
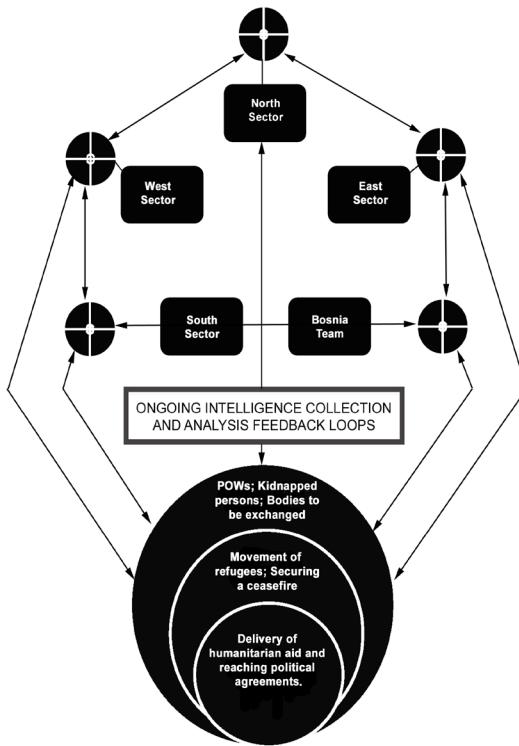
Figure 3: A Revised Bosnia Command Structure. See Figure 2 for the content of each small circle. (For graphic simplicity, the arrows (representing each sector's efforts) are not shown as reaching all three "subject" circles described in the text above, but of course they would in practice.)

distribution/sharing. Rarely in all the conflicts I have participated in have these considerations actually been incorporated in the approach to the conflict.

Instead, I have witnessed two typical responses to conflict. The first is that of a negotiator or mediator heightening his own personal awareness, taking the time to analyze the conflict more comprehensively, but without having a structure, team, mechanism or processes in place to conduct this with the necessary skills and tools to do it properly. The second response I have observed has been in the form of theoretically robust structures in conflict zones, known as fusion or Intel centers, but whose scope is often limited to the military and tactical elements of the conflict. What is important to winning on the battlefield, e.g., avoiding casualties and identifying the next immediate threat, does not necessarily help to develop a strategy of peaceful

resolution, or to mitigate the threat through a multifaceted approach including the use of negotiators, mediators, community development, psy-ops and political and economic initiatives.

To be effective at approaching a wicked problem, then, will require a correspondingly complex and multidimensional approach. This has undoubted costs. But until leaders involved in conflict are willing to open themselves up to such new and more elaborate approaches, the old ways of business will lead those involved in managing wicked conflicts to the usual outcome of frustration and failure.

Equally important, such a structure allows for *resilience*. Most wicked problems, as Coleman describes, are frustrating, long-term and exhausting. Building structures like this allows for negotiators, mediators and other conflict managers to be replaced as necessary – or simply to take the time to be reflective. This too sustains forward movement, making it less dependent on a given individual.[7] A structure that can last as long as the wicked problem also deals with the reverse issue – the likelihood that many so-called experts will leave almost as fast as they arrived. With that kind of turnover goes a loss of knowledge, relationships, trust and insight. Creating a structure allows sustaining and building upon the forward movement of any one individual's conflict mitigation and management. Mediators, negotiators and peacemakers thus need to consider a more robust systems approach to conflict, versus the traditional linear approach utilizing one or a group of mediators/negotiators.

Strategy

The second strength that a structure like the one diagrammed in Figure 3 allows for is strategy. The benefits of strategy in *military* operations have been well known since the days of Sun Tzu (see 1910/2012 translation), and account for a huge proportion of military history. To develop strategy, analysis is required – which is built into this structure. However, the structure must allow for the ability to develop, plan, and constantly modify the strategy. This means it must have the personnel and resources to focus on tomorrow's activities, not merely today's crisis. Once the strategy is developed, it needs a mechanism within the structure to command and control the activities, to ensure consistent focus on the mission, to manage any conflicting activities, to ensure that all the moving parts of the structure and the team are in sync, and most important, to ensure that the operation maintains the "speed, flow and direction" of the conflict mitigation or management activity.

There may be times to pause the activities, to avoid fueling the conflict; there may be times to shift the direction quickly, to exploit new peace opportunities; there may be times when new barriers ap-

pear, which perhaps would benefit from some outside perspective and experience. This includes the insight and awareness to avoid the destructive political, cultural and psychological "landmine" issues inherent in all wicked problems. In addition to "built-in outside experts," however, such a structure also proactively identifies, and formerly builds and maintains, critical strategic alliances.

Identifying, developing and sustaining relationships with strategic allies is time- and resource-dependent. Creating a structure focused on this potentially aids in having the right people proactively engaged at the right times to allow for effective forward momentum in overcoming the inevitable obstacles, resistance, barriers and spoilers. This should result in an improved ability to outmaneuver the spoilers of peace; greater wisdom to know when to pause in order to avoid stepping into highly volatile issues; and better insight into the when, where, who and what of latent opportunities for collaboration. Building structures in advance through planning allows for the full power of a strategic approach, as compared to a reactive one.

Once a suitable structure is in place, a strategy is developed based on the ongoing analysis. This will identify various *processes* or *channels* of engagement. For me, defining these better will have to be a "next phase" in my approach to thinking about wicked problems. I can at least, however, outline the processes that I think would be implicated in the Bosnian structure, shown in Figure 4 on the next page.

I can also note which elements were, in my view, missing in practice. For simplicity, I will discuss these as text elements keyed to the several elements of the Figure 4 diagram. I freely admit that this diagram is imperfect in many ways. Because diagrams and flow charts have been known to be excerpted and to then take on a life of their own, I should emphasize that it is offered here merely as the best I can manage at the present stage of thinking through these issues, not as anything rigorous, and certainly nowhere near anything "definitive." Yet even this first attempt to codify a suitable structure would, I think, have improved greatly on what my colleagues and I had available in Bosnia. Had I understood these matters better then, I would have used it.

Process

With the structure outlined in Figure 3, the HQ conflict management team could have assumed responsibility in developing a strategic communications strategy, and with the support of other subject matter experts, could have leveraged the activities in the field in relationship to POW negotiations, and gleaned broader community and political support for their resolution. In such a communication stream, the messaging should be consistent and in support
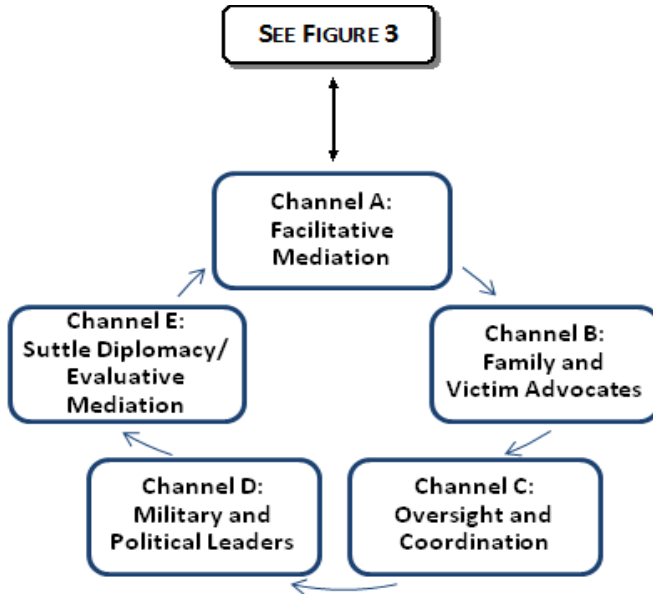
Figure 4: Relationship of Revised Bosnia Command Structure to Outside Channels

of the other channels. The target audience here is the larger community – associates of those engaged directly in negotiation/mediation processes, and persons of influence *outside* such channels.

This concept includes political leaders, persons of influence within the warring factions, potential spoilers of peace, and the community at large. This channel must be in sync with the other channels, but it has many options, and according to the "sync needs" of the moment can use communication means such as television, literature, town hall meetings/public forums, radio, Internet, and/or blogs to carry the message. In Coleman's description of "the 5%," I would suggest, the majority of such conflicts are multiparty disputes. Relying solely on communication with those directly engaged has typically resulted in failure. Thus a strategic channel for communication targeting the larger audience is critical.

Often, key players and persons of influence are not engaged in the actual negotiation/mediation processes – thus the need for a broader communication strategy, to ensure that efforts are made to address the potential role of those outside the formal resolution processes. Often there is misinformation being generated and shared amongst the warring factions, including intentional propaganda as well as simple miscommunication. Efforts must be made to enhance the accuracy of the information from all sides, and to nullify efforts to undermine the negotiation/mediation processes.

In the former Yugoslavia there has been literature confirming the use of "psy ops" (functionally, strategic communication under another name, though the phrase "psy ops" often has pejorative connotations that derive from being sneaky, which peacekeepers must avoid). Nevertheless, I suggest, there was a lack of an overall communication *strategy*. In my view, this was largely due to the lack of a formal structure within the UN tasked with resolving these issues. Building a conflict team structure such as outlined in Figure 3 would allow for working with psy ops groups, other strategic communication resources, and next, those who are described below in Figure 4 as "channels." Inherent in this proposal is a change in the usage of the word "channel." This is deliberate.

Channel A is directed at the designated government representatives who are directly responsible through their positions for assisting in the resolution of the conflict – or in some cases, in the escalation of the conflict. Traditionally, negotiators, mediators and peacemakers have consistently focused their structures and processes (i.e., all of their resources) in engaging with these players. Yet my experience is that most of the engagement has been performed without any formal structure; the interactions have been informal, or semi-formal at best.

In Bosnia, quite often if not consistently, the lead organization for mediation in these processes was the International Committee of the Red Cross (ICRC). Where possible, the UN did embed an observer into the facilitative mediation process led by ICRC. For instance, in the former Yugoslavia, in some cases the UN Military Liaison Officers assumed that role; in other cases, UN police or UN civil affairs officers assumed that role. Unfortunately, because there was no formal structure, such third-party support in addition to the ICRC was minimal, leaving the warring parties to their own means to resolve complex issues. If the ICRC was unable through its typically confidential, facilitative process to reach an agreement, the outcome was loss of life, torture, and the escalation of tensions. At the very least, a structure within the UN with observers who were *consistently* embedded into the facilitative mediation processes, with some central coordination and oversight, would have allowed the UN to glean valuable insights into the causal factors of the tensions, identifying opportunities for potential resolution and trust building. (I note Coleman's discussion that it takes between three and a half and five positive experiences for every negative one to build trust. The reader can easily imagine what the ratio was in Bosnia.) Clearly, this by itself would not have been enough. But even such mere "presence" of the international community would have enhanced, to some degree, the willingness of the warring parties to act in good faith.

Channel B: This channel is essentially focused at engaging family, friends and associates of missing persons, a "victim liaison" role. This may include conducting prison visits, providing "proof of life" for the negotiations if required, and ensuring that the families and their associates mobilize (where possible) community and political support to resolve the POW/missing persons/body exchanges.

Quite often, the players from the warring factions may resort to utilizing the victims for other political or military gains; the well-being and safe return of POWs or missing persons, or the respectful return of casualties, becomes a tool or weapon in the war. Equally often, the warring parties may avoid engaging or maintaining transparent dialogue with the families, if they opt to use the victims' situation for ulterior motives. A process such as channel B provides the UN negotiators/mediators with an opportunity to engage with these families, and leverage them for securing political and community support in resolving the volatile issues. This may include the family providing negotiators/mediators with additional opportunities to engage with community and political leaders, in an effort to advance the processes in channel A. To accomplish this effectively, a structure that allows for constant relationship-building and communication with the families is critical. In the former Yugoslavia, however, structure and resources were absent in this family liaison role, and the negotiators engaged in channel A processes were required to assume this role as well. This placed additional responsibilities on those tasked with managing very complicated processes associated with channel A, and as a result, negatively affected the "speed, flow and direction" of *those* negotiations. Having a specific mechanism in place – i.e., several officers with a standing assignment as liaison to the families – would thus have bolstered channel A in addition to its direct functions. Here again, the absence of formal structure limited the effectiveness of the processes involved.

Channel C: This is the oversight and coordination prong, to reduce conflicts among other processes, to leverage opportunities, to apply pressure when barriers arise, and to infuse all of the other processes with real-time analysis and intelligence. This prong represents the part of the structure where strategy evolves into operations, and it is intended to provide constant looping of assessments and feedback between the many processes. This prong also provides support and guidance to the field operatives concerning nuances of culture, history, politics and current events which they have no time to track directly and which may significantly impact their respective processes.

Channel D: This is designed to proactively build relationships with key military and political leaders who can assist in the mitigation and/or resolution of the POW, missing persons and body exchange issues.

As stated previously, channel A is the primary such channel; but as noted above, the facilitative mediation process led by ICRC constantly ran into barriers, resistance and challenges that could not be resolved or even addressed by those "at the table." It is entirely consistent with Coleman's analysis that additional structures and processes would have to be put into place to create strategic alliances, to amplify the mediators' power and influence.

This is especially applicable if the process needs to shift more towards something resembling "evaluative" mediation, such as a shuttle diplomacy-and-negotiation process in which the peacekeepers themselves engage more assertively. Failure to provide for this element is a significant predictor of the typical stalemate expected by Coleman's analysis. In situations such as the Bosnian conflict, that includes loss of life and escalation of tensions. On the ground in that conflict, I assumed this role myself, in addition to managing other processes; a more structured approach, with others tasked specifically with this role, would have been far more effective.

Channel E: In addition to mediation processes facilitated by such agencies as the ICRC, consideration should be given to a parallel "evaluative" mediation, which would include bouts of shuttle diplomacy.

Outcome

This process, as I conceive it, would be a UN-supported process that would perform the functions the ICRC is ill-equipped to do, such as moving the parties through difficult barriers. It would allow the ICRC to remain neutral in its facilitative definition, as its charter requires, without sacrificing the good that a more intensive/robust approach can sometimes bring. This could have helped to keep the overall mediation efforts from repeatedly stalling out. I have witnessed the ability in other cases to run both evaluative and facilitative processes in tandem, by independent (but cooperative) mediators.

This, admittedly, requires a high degree of continuing analysis, risk management and communication with the parties, to ensure that one process does not compromise the other process, but instead enhances it. The corresponding structure would consist of various UN mediators/negotiators and intelligence personnel, forming an integrated team (military, civilian, and police), specifically tasked with these negotiations/mediations. In my view, those attached to the F prong would not only work behind the scenes between warring parties on sticking points that were frustrating the ICRC mediation, but would seek resources to "create value" (when one side needs something new put on the table to justify to its own constituency its logical next move), identify innovative solutions for joint gains, proactively identify impending barriers, and organize an "all hands on deck"

approach when that is what it will take to resolve the impending problems in advance. In terms that have been used to describe labor mediators, this kind of role has been called a "dealmaker," in comparison to the ICRC's "orchestrator" role (Kolb 1983). In Bosnia, due to the sensitivity of channel A and the reputational and trust issues that concerned ICRC, many such initiatives and sidebar negotiations took place between the warring parties and myself, when such sticking points were encountered. Again, however, a formal structure with proper resources would have helped.

The structure outlined here is far from perfect. My purpose in offering it is simply to highlight the importance of *structure* to support *processes* which will in turn result in more effective *outcomes* in wicked problems. Today's practitioners, especially over the last decade, have increased their focus in both theory and practice on self-awareness and self-reflection (see, e.g., Fox and Press, *Venturing Home*, and Goh et al., *As We See It*, in this volume). There is an unequivocal need for practitioners dealing with wicked problems, however, to add to this a greater awareness of how to build structures to assist and support their process work.

The structures themselves will require complexity, as Figures 2-4 suggest. At the same time, they must be designed to be fluid, flexible and capable of responding to dynamic events within the conflicts. Typically, the warring factions themselves create a structure (e.g., in the former Yugoslavia, the Exchange Commissions) to address such issues as POWs etc., as they obviously know these issues will become volatile and perpetuating factors. Yet in Bosnia the UN failed to consider a structure of its own designed to address what was obviously a key issue in a "5%" conflict, choosing instead to rely on the simplicity of design of a "UN military, UN police and UN civil affairs" structure. While there are likely a host of reasons for the existing structures of the UN in peacekeeping operations, experience suggests that the UN could have done better in view of the complexity of the conflict. Nor did the UN build subsidiary structures within the larger structure to address the key and perpetuating issues associated with POWs. In summary, and in my experience in other conflicts, structure is one of the last things that practitioners consider.

The reasons for this are themselves complex, and may relate to a combination of ego, inexperience, and exhaustion. In 1993, while still an extremely inexperienced practitioner of conflict management, I recall being summoned to UN HQ by senior officials during the Bosnian negotiations. I was brought before the UN Commissioner of UNCIVPOL, Commissioner Michael O'Reilly, who was kind enough to praise my work in this area. He then asked if there was anything

the UN could do to assist and support my efforts. He asked that I keep him advised, and said he and other leaders would ensure that I secured the support to continue on with these critical negotiations. With the benefit of hindsight and the impetus of this writing, and as a student of dispute resolution since my experience in the former Yugoslavia, I have recently reflected on my then response.

My response, I regret to say, was typical of those I have since observed with many practitioners: an egocentric response seeking support to continue on with my efforts, to continue to be allowed to participate in these high risk and politically sensitive negotiations. Had I had the benefit of more experience, or had I honed my self-reflective skills (which occurred only later, as a result of studying such thinkers as Daniel Bowling and Michelle LeBaron) I would have put more thought and less emotion into my response.

What was really required, to sustain the work I and others had started, and to mitigate the loss of life and the torture that was occurring on a daily basis, was to focus on designing an effective *structure*, such as the one depicted in the previous pages. If we are to improve our abilities in managing, mitigating and resolving the "5%" conflicts, we must enhance our awareness not just of the self, but equally, of the techniques and needs for building structures to amplify the effectiveness of our processes. In other words, we must learn to treat as a matter of routine, and to execute, the pattern **Structure→strategy→process→outcome.** In addition, we must in the future prepare those venturing forth to such assignments to ensure that our mediation and negotiation processes truly consider the strategic, operational and tactical levels of conflict engagement to be distinct, with the tactical day-to-day engagement and management of linear processes coming only after strategic and operational decisions.

Conclusion

The past twenty years' development of our field has, at least, made it easier to perceive some of the deficiencies in our practices; and that is, perhaps, a start toward being able to train and deploy professionals who are readier to deal with the complexities. As one of the key complexities, it bears repeating that the processes outlined above are not linear, let alone fixed. They are instead constantly modified based on analysis, feedback, assessments and opportunities, successes – and failures. All of these processes must operate in line with the strategic objectives and the overall strategy, and these too shift over time.

In that respect in particular it feels wrong to label this section of our chapter a "conclusion"; the very concept is too misleading, in view of the work-in-progress reality as I perceive it. Perhaps it is ap-

propriate, however, to refer to a way station, and a milestone. At best, my colleagues and I in this chapter have arrived at a way station, perhaps representing a definable bit of progress along a path that is certainly going to remain both confusing and arduous, and that is probably unfinishable in any of our lifetimes. To the extent that this analysis may be useful to others, however, it owes a good deal to Peter Coleman's book. That, indeed, is a milestone.

Notes

[1] For more on the value of metaphors in negotiation, and indeed the inevitability of thinking in them, see Gadlin, Schneider, and Honeyman 2006.

[2] It should be noted that Coleman's book is not about "negotiation" as such. Its relevance in negotiation is that it provides a way of describing a *context* for negotiation. Yet it is on all fours with the thrust of this team's conclusions to date; see particularly Docherty and Lira, *Adapting to the Adaptive*, in this volume. And it may go further, by giving a negotiator working within this context a clearer sense of the alternatives available to self and other. What it says more profoundly is that negotiation can be made more effective by using Coleman's larger intellectual construct. This is no small accomplishment, and no small contribution to the larger agenda of the negotiation field.

[3] Note the parallel discussion by Rachel Parish of "creative space," in *Making it up as You Go*, in this volume.

[4] Not always, however. See, e.g., Korobkin 2006, Bernard 2006, and Honeyman 2004.

[5] One reviewer of the eponymous software product Genuine Fractals claimed to be routinely making 40″ x 60″ prints from a 15 megapixel file, and sometimes prints up to ten by thirteen feet, with success. This is a very high degree of enlargement. Genuine Fractals 6 Review, by Jon Canfield, available at http://www.photographyblog.com/reviews_genuine_fractals_6.php (last accessed January 23, 2013).

[6] In May 2011, approximately a year after this excerpt was first published, Mladic was found, arrested and extradicted to the Hague, where he is currently on trial for war crimes, crimes against humanity, and genocide. See generally http://en.wikipedia.org/wiki/Ratko_Mladi%C4%87 (last accessed January 13, 2013).

[7] Here I speak as a practitioner who was once called unexpectedly from Vancouver into a government department's weekend meeting in Ottawa – and then dispatched directly to the Horn of Africa, without even the opportunity to go home and pack. I was gone almost a year, partly because there was no structure for "spelling" me once I had become familiar with the conflict. The number of times an experienced practitioner faced with this kind of deployment has begged off, or resigned, or demanded transfer while the work was still under way and with no suitable replacement in sight, is difficult to know; but I suspect it is high. The neutral agencies find it all too easy to blame the resulting failures on the parties.

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