

## Design: The U.S. Army's Approach to Negotiating Wicked Problems<sup>1</sup>

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*Editors' Note: Over twenty years of dealing with problems in post-conflict settings since the end of the Cold War, the U.S. Army has increasingly recognized that the character of the conflicts it is involved in now routinely includes pervasive, complex, and ill-structured problems – in other words, “wicked problems” – which the Army must deal with using non-violent means. The specific concept of “Design” is the foremost step yet taken by a U.S. military service toward setting forth ways of addressing wicked problems as a frequent, core need in the field. This radical departure in military doctrine is already finding its way into field manuals and training courses.*

### Introduction

In Rome at the 2008 initial conference of the Rethinking Negotiation Teaching project, the coordinators argued for an evolution of negotiation pedagogy (Honeyman, Coben, and De Palo 2009). The conference's theme implied that “Negotiation 1.0” instruction was mostly applicable to contexts that were two-sided, person-to-person, linear in structure, and focused on set conditions that are in dispute and well-definable. To me, attending this conference while on R&R during my second tour in Iraq, this also implied that standard approaches to negotiation pedagogy did not apply to the prevalence of negotiation practices employed by conflict professionals who deal with social problems in conflict settings. In my view, such settings include war or peacekeeping situations where violent conflict is prevalent, but also other non-violent social conflict contexts where

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conflict professionals employ negotiation skills as a main facet of their operations to resolve problems which are not as easily definable or structured as one might infer from negotiation pedagogy.<sup>2</sup>

I have observed, if only confirmed anecdotally in conversation with skilled negotiators well practiced in the delivery of negotiation education, that the majority of current negotiation pedagogy seems quite narrowly focused on preparing students for “tame,” well-structured problems, as compared to the sorts of “wicked” problems that are prevalent in major conflict. For example, Michael Wheeler and Gillian Morris (2002) recognized the lack of accounting for or dealing with unknown settings in the negotiation literature. They emphatically state that

Most popular negotiation books give little attention to strategy in fluid, uncertain situations. Instead, they typically posit a static world with clearly defined parties whose interests and non-agreement options are implicitly unchanging. Little is said about formulating and implementing strategy in ever-changing environments (Wheeler and Morris 2002: 1).

If the extant literature is void of this discussion, it follows that the pedagogy would be also.

One gap in current negotiation pedagogy appears to be its inability to prepare practitioners for negotiation scenarios in settings of complexity and uncertainty, or in the “formulation and implementation of strategy,” which is a planning function. Although there is a rich history of negotiation practice related to managing multi-party public conflicts (see, e.g., Forester 1980; Bingham 1986; Forester 1985; Forester 1999; Susskind, McKearnan, and Thomas-Larmer 1999; and Carpenter and Kennedy 2001), the lessons learned in these venues have not made it into “Negotiation 1.0” pedagogy in other settings, in particular with regard to dealing with “wicked problems.”

In company with my colleagues in this section of this volume I use the term “wicked problems” from the planning literature to describe what is missing in the current pedagogy (Rittel and Webber 1973). A detailed description of wicked problems as compared with tame problems is included in Chapters 24 and 25. The definitions themselves are reproduced for convenience of the reader here in endnote three.<sup>3</sup>) Here I will assert that we need to develop education and training skills for the strategic level planning process so that people dealing with wicked problems can better know when, where, and how to use negotiation to transform larger conflicts.

This chapter will illustrate how wicked problems are prevalent in the conflict settings the U.S. military deals with. Using a story from my own experiences in Iraq, I will illustrate what those challenges look like “on the ground,” and examine how the U.S. Army has reformed its planning processes by developing and including in revised military doctrine a comprehensive cognitive methodology – a set of “thinking tools” – to address complex and dynamic operational environments, in order to allow Army personnel to better address the missions they are being asked to accomplish.<sup>4</sup> Under the rubric of “Design,” this begins to account for the requirement to deal with problems of uncertainty in complex operations. Note, however, that the term Design here is used as a military term of art. Its civilian connotations can be somewhat misleading in the present context. The chapter finishes with some thoughts and questions about what the need for strategic level thinking and planning implies for “Negotiation 2.0” pedagogy.

### The U.S. Army in the Post-Cold War Reality

With the end of the Soviet-U.S. standoff at the end of the Cold War, the primary risk of armed conflict or war between contending superpowers became less likely. In fact, the largest source of violent conflict now comes from *intranational* (within a single country) conflicts that tend to *internationalize* “to the degree that some conflictants, particularly opposition movements, inhabit neighboring countries; weapons and money for the conflict flow in from the surrounding region and from more distant locations; and displaced refugee populations cross immediate and distant borders” (Lederach 1997: 11).<sup>5</sup>

The states where these so-called new conflicts occur are often fragile or weak. Even if their governments had the will to handle such conflicts, they usually have neither the reach nor the resources to respond effectively to conflicts that are both intranational and internationalized regionally or – in the case of transnational terrorism – globally. Furthermore, many of the governments are themselves part of the problem. This is particularly true in conflicts where minority groups, or numerically superior groups that have nevertheless been pressed into positions of submission (e.g., South Africa), believe the state apparatus has been captured and used by a dominant group to cement its own position of privilege.

Countries from outside a region that are directly affected by violent conflict find it difficult to promote sustainable peace in war-torn areas. With the invasions of Afghanistan and Iraq as notable exceptions, governments are usually loath to use force in the sovereign territory of other states in order to handle internal violent conflicts. Consequently, debates have gone on for over two decades re-

garding the merits and risks of either U.S. unilateral actions and/or participation in multi-national activities that represent the array of U.S. government policy options implemented for responding to these conflicts.

However, while the debates have raged, the U.S. government has nonetheless initiated several policy initiatives that led to the use of U.S. Army resources for the purpose of promoting stability and peace in war-torn countries. The most recent challenges have, of course, been Afghanistan and Iraq, where U.S. military forces in cooperation with international coalitions have been juggling combat operations to root out terrorist organizations *and* the stabilization and reconstruction of societies damaged by years of misrule and violence. Doctrine follows experience and the military follows civilian policy. So it is no surprise that the U.S. military services have been evolving their doctrine, training, and resource allocation.<sup>6</sup>

Based on over twenty years of operations in post-conflict settings since the end of the Cold War, the U.S. Army has come to recognize the pervasiveness of mission assignments that involve complex and ill-structured problems that have to be dealt with using non-violent measures. The Army more recently has articulated this understanding of conflict complexity in one of its capstone doctrinal publications. The U.S. Army Field Manual *The Operations Process* states that in the era of globalization, conflict is invariably complex because it is fundamentally human in character, occurring more and more between and among diverse actors, both state and non-state, and in non-Western settings (FM 5-0 2008: 3-5). Furthermore, the Army has articulated its understanding of the paradox of accomplishing its missions without relying on its primary functional capability, the use of violent force, in its doctrinal manual on counter-insurgency operations. FM 3-24 specifically states:

Sometimes, the more force is used, the less effective it is. Any use of force produces many effects, not all of which can be foreseen. The more force applied, the greater the chance of collateral damage and mistakes. Using substantial force also increases the opportunity for insurgent propaganda to portray lethal military activities as brutal. In contrast, using force precisely and discriminately strengthens the rule of law that needs to be established (FM 3-24: 1-27).

Given the size and complexity of these particular conflict settings, the U.S. Army had to develop strategies that relied on resourcing and sequencing non-violent activities, known in military jargon as non-lethal operations. Examples of such non-violent activities in-

clude peace operations conducted in Kosovo and Bosnia, such as the Croatian example provided by Calvin Christie (*Negotiating Wicked Problems*, Chapter 25), but also counter-insurgency operations conducted in Iraq and Afghanistan.<sup>7</sup>

Negotiating with local leaders to coordinate and implement non-lethal activities such as rebuilding the local infrastructure and establishing inclusive governance structures has become a regular part of operations for many Army units (Schultheis 2005). As various militia or insurgency units decide to use non-lethal means to achieve their political goals, Army personnel can find themselves in negotiation with individuals they were fighting against in the recent past. They might even be negotiating during the day with individuals they suspect are engaged in fighting at night. For example, in Iraq the move to non-lethal strategies meant employing negotiation in support of reconciliation efforts as an operational approach to solving *military* problems and to achieving security.

To begin formal "negotiations" in these settings seems almost impossible. Often, practitioners cannot completely define a negotiable problem, let alone one that they are certain will leverage the larger changes they are ultimately trying to achieve. They also find it difficult to build and sustain agreement about which parties should be involved, and the parties are prone to reconsidering the benefits of negotiating rather than using other options to achieve their goals. In all of these settings, negotiations have rarely (if ever) occurred in a person-to-person or linear fashion. In Iraq, they occurred in multi-actor settings among local nationals, host governments, international government organizations, nongovernmental organizations, multinational armed forces, and multinational intergovernmental agencies. Furthermore, others not involved in the negotiation could and did take actions that distorted any initial problem set that the local negotiators identified. For example, if the national government, insurgency leaders, or coalition forces changed their strategies or allocation of resources, the local negotiators recalculated their best and worst alternatives to a negotiated agreement. This continuous evolution usually exceeded the time available for analyzing the situation prior to action.

The stories of negotiating in the context of wicked problems (see *Negotiating Wicked Problems*, Chapter 25) illustrate the difficulty of using negotiation as a tool for responding to these complex challenges. One problem is the need to implement planning on multiple operational programs, in which negotiations occur in multiple settings, with multiple actors, all of which have different goals but all of which require the practitioners to manage the actions needed to achieve those goals. Many times negotiations to address parts of a

wicked problem take place in situations where no one is managing the overall “game plan” or coordinating the negotiations with other activities, including negotiations that are happening on other levels.<sup>8</sup>

It is interesting that the one story from Chapter 25 that seems to have been resolved successfully (“High Drama in a High City”) involved a strong leader able to marshal multiple resources in an environment that was not beset by serious violence or insurmountable corruption. In the absence of a central organizing authority, the ground level personnel can only coordinate their actions in reference to a shared strategy and a shared assessment of the opportunities for action. This is why the military and civilian leaders now working on developing a “whole of government” response for unstable conflict situations are expending considerable time developing and testing conflict assessment tools such as the Interagency Conflict Assessment Framework (ICAF).<sup>9</sup> This type of organizational activity requires an interdisciplinary understanding of how to develop negotiation strategies at the organizational level, and how to oversee programs that require teams of practitioners to implement the negotiation strategies required for conflict management programs to succeed. This type of learning is not typically associated with “Negotiation 1.0” instruction, to put it gently.

But a number of authors and practitioners, especially those associated with public policy and environmental matters, *have* addressed these issues (see, e.g., Forester 1980; Bingham 1986; Carpenter and Kennedy 1991; Forester 1999; Susskind, McKernan, and Thomas-Larmer 1999; and Carpenter and Kennedy 2001).

### ***Negotiating Support for National Reconciliation***

An example of a “wicked problem” faced by the U.S. Army was its attempt to facilitate reconciliation between members of the Tamimi tribe and Dulaimi/Jibouri tribes in the Taji Qada during the final days of the “Surge” operations during the Army’s campaign in Iraq. In the summer of 2007 during the Iraq war, the Sunni Awakening had overturned Al Qaeda control, the Shia factions called for a cease fire, and former insurgents appeared willing to work with U.S. and Iraqi governments. At this ebb of the sectarian violence that swept Iraq, reconciliation was driving every security action by the coalition forces. When the Army unit I was assigned to on my second tour, 2-14 Cavalry, arrived and assumed responsibility for securing Taji, the sectarian fighting largely fell off across Baghdad. Consolidating gains made from the respite in violence became the order of business for 2-14 Cavalry, and facilitating the reconciliation process among the various local tribal members residing in the Taji area was

top priority. Negotiation was one of our tools, but the reconciliation did not fall into place easily.

Taji is a rural region approximately twelve miles north of the city of Baghdad. It contains a predominantly Shia population, who are made up from the Al Tamimi tribe, but it is also intermixed with Sunnis, such as the Al Dulaimi in the western portion, and the Al Jabouri in the eastern portion. Several social issues laced with human dynamics caused fissures in the fragile peace that coalition forces won in this area, and threatened to reverse the move to reconciliation.

One such example was the creation of local tribal reconciliation councils to negotiate the implementation of the reconciliation process, which created conflict between members of the Al Tamimi Tribe and the Al Jabouri and Al Dulaimi tribes that resided in the Taji area. The Iraqi government had created the National Reconciliation Committee in the Iraqi National Council of Representatives, the Iraqi national legislative body; the National Reconciliation Committee in turn had devised explicit rules on how local committees were to be formed. This could be seen as evidence of a national movement toward reconciliation; but progress was not easy in Taji.<sup>10</sup> Even though one committee was authorized for Taji, each sectarian faction wanted to create their own committee.

My unit, 2-14 Cavalry, took on the task of negotiating the implementation of the national reconciliation process – or more accurately, the role of facilitating the negotiation among the parties to implement the process. In hindsight, it is clear that we were trying to negotiate a particular problem (establishing the reconciliation council) in order to negotiate changes in the social order (rebuilding trust among the tribes and creating mechanisms or organizations that could manage future conflicts). (See Docherty, *“Adaptive” Negotiation*, Chapter 26.) But at the time, we were working with “Negotiation 1.0” tools, and it appeared to us that the tribes would never reconcile no matter how many times U.S. forces brought them all to the table. At forums we sponsored, all of the tribes made public declarations of reconciliation, but away from the forum table they would return to their entrenched positions and try to exclude each other from the local committee. It turned out that this “seemingly irrational” behavior occurred for a number of complex reasons, and it was not until roughly nine months into the mission that 2-14 Cavalry started to uncover them.

We learned that a series of sectarian killings that had occurred two years earlier, and the mutual fear amongst the tribes of the cultural need for blood retribution was preventing the discussion of reconciliation. The killings took place in a village of Taji called Bas-

sam. Bassam is located between Abu Ghraib and Taji, but lies predominantly in the western portion of Taji. This village was on a sharp dividing line between the rival Sunni and Shiite tribes, following the overthrow of the Saddam regime. Bassam was being torn apart by sectarian violence in 2006 and 2007. Many of the villagers of Bassam were Sunni who supported insurgents and Al-Qaeda in fighting Shiites. Control over Bassam was contested by Al-Qaeda on the one side and the Mahdi Army militia of Shiite cleric Moqtada al-Sadr on the other.

One particular issue that haunted the reconciliation process in this area occurred in July of 2006. Sunni insurgents besieged a small Shiite settlement in the area, preventing the 190 or so inhabitants from reaching food supplies or water. After three days, on July 19, the Shiite families surrendered and negotiated a settlement for safe passage, provided they left the area, never to return. The women, children and some men boarded a convoy of minibuses and trucks and began to leave. Not far along into their route, the convoy was stopped by gunmen. Five men were ordered out of the vehicles. The women and children were forced to continue in the convoy and the men were held. As the convoy headed off, shots were heard, and the men were never seen again.

The facts of the incident were not readily known by the U.S. military unit charged with managing the tenuous security of Taji shortly after the event. And in fact, this incident, and several others in the area, kept clouding the issues of stability and reconciliation for the entire time that unit was in Taji, up to when it passed control over to 2-14 Cavalry. So even though the fighting had largely stopped, sectarian suspicions still ran deep, and violence was always liable to surface. For example, one local Sunni leader, Sheikh Zeydan, who was trying to lead attempts at reconciliation with the village's Shiite neighbors, was assassinated for his attempts, presumably by Sunni relatives.

It was in this context that we were trying to facilitate the establishment of a joint reconciliation council. This is a clear case of socially negotiated rules of behavior intruding upon and complicating an attempt to negotiate a particular problem. The tribes had a shared fear that if the truth about this and other killings emerged in the process of reconciliation, the cultural norms about blood retribution would lead to more bloodshed. The outcome was that the Shia dominated the reconciliation council meetings, and would rarely let the Sunni tribal members into the meetings or let them voice their opinions at the meetings.

Adding to this was the fact that the government of Iraq, which was predominately Shia, appeared to not be servicing the Sunni ar-



areas in Taji. Sectarian bloodletting, in 2005 and 2006, had sharply redrawn local village boundaries around Taji: Sunnis in one area; Shia in another. And the Sunnis of Taji did not get the representation they thought they deserved from the government. For example, in the Sunni areas, schools lacked the simplest things, such as desks and doors; roads went unpaved, and Sunni farmers did not get enough irrigation water, fertilizer, or seeds.

In addition, Government of Iraq (GOI) official recognition of local tribal reconciliation councils, which were extensions of the national reconciliation council, gave legitimacy to the Taji Tribal reconciliation council's actions and decisions. But the reconciliation council had a mixed agenda. They were not just focused on reconciling the past, they were also authorized to make decisions about significant economic matters, including awarding contracts for recovery work. Due to the overwhelming need to reconstruct the cities, roads, and institutions of service, many contracts were issued by the U.S. military and the GOI. Sometimes the competitions over the contracts turned deadly, adding to the violence already caused by sectarian conflict, as disagreements sometimes led to Sunni on Sunni or Shia on Shia killings.

To handle all of these challenges, the leaders of 2-14 Cavalry received negotiation instruction in their one-year "train-up" for this deployment. This training was "Negotiation 1.0" and it included lessons for the staff on how to assess, and determine for their commander, zones of agreement, best alternatives to a negotiated agreement, and other well-known principles of negotiation. The commander and other leaders at all levels then were afforded opportunities to implement the training in role-playing exercises. Although the negotiation training was extensive, none of it adequately prepared the unit for what it encountered in Iraq. This was because most of the training, conducted by negotiation contractors at the Army's National Training Center, centered on singular problems, with singular root causes, to solve which the leaders would negotiate personally with an actor playing an Iraqi. In other words, these exercises were constructed in a linear, lock-step, checklist fashion: we were being taught negotiation as a process for dealing with "technical problems" when we were going to be confronting "adaptive problems" (Kegan and Lahey 2009).

In fact, what the leaders of 2-14 Cavalry encountered in Iraq was very much like Rory Stewart's description of his own Iraq negotiations there. As Stewart explained in his book *Prince of the Marshes*, "It is one thing to negotiate with a sheik in your office, quite another to predict what he might do, still less judge how 25 million others will collectively feel, plan, and act or how you ought to respond" (Stew-

art 2007: 397). This type of ill-structured problem and the complexity it created caused the commander and staff of 2-14 Cavalry many challenges in deciding what course of action would best facilitate reconciliation.

As a result, the members of 2-14 Cavalry were unprepared for facilitating multiple issues, with multiple actors, and had no formal training to develop a clear understanding of the true underlying reasons for the conflict, nor for implementing a process for deciding on courses of action to deal with the multiple variables involved in those issues. Eventually, the leaders of this unit came to understand that their goal in reconciliation was not to heal old wounds, but to facilitate the process in which all of the actors could continue to form their own consensus as to how to reconcile. The goals of the unit became, in effect, to keep the parties coming to the table, to keep them talking, and to learn how to deal with each issue as it cropped up.<sup>11</sup>

As the Operations Officer, and then the Executive Officer of 2-14 Cavalry, I had several more experiences similar to those described above and to those Stewart describes in his book. In addition to the tribes, we dealt with various military and police organizations, the Iraqi government, and each echelon in the ministries of that government. We also dealt with several insurgent groups, which all had varying associations with the other groups just listed. The preeminent lesson we took away from these engagements was that the variables that affected the environment we were operating in were almost infinite. We found it very difficult to apply the required conceptualization and implementation of non-lethal operations, even though we felt very well trained in negotiation and other non-combat functions. Based on this conclusion, we found ourselves looking for a process to help us deal with the uncertainty, while we developed courses of action to deal with the security problems we encountered.

With the Army's greater involvement in peace and post-conflict operations, this has been a vexing problem for military professionals elsewhere too, because they are used to managing such environments with the use or threat of the use of violent force. As evident in the current historical literature of both recent campaigns in Iraq and Afghanistan, this approach did not always lead to accomplishing the objectives that the military set out with at the beginning. This was not due to the military not understanding how to solve problems. In fact, the military has been using an operational planning process for years to develop courses of action to solve all sorts of problems, very successfully. However, due to the repeated involvement of U.S. military forces in conflict settings that present complex problems requir-

ing other than violent military means for solutions, military staffs have adapted their decision-making processes for problem-framing and re-framing in adaptive and complex conflict settings.

The way in which the military has attempted to deal with such situations is through *reforming the military problem solving methodology* to incorporate a critical and creative thinking skill. This is described by the Army as Design, "a methodology for applying critical and creative thinking to understand, visualize, describe, and assess complex, ill-structured problems and to develop approaches to solve them" (FM 5-0: 3-1). Brigadier General Edward C. Cardon, the Deputy Commandant of the U.S Army Command and General Staff College (CGSC), emphatically states that this reformation is "arguably the most significant change to our planning methodology in more than a generation" (Cardon 2010).

As Lieutenant General William Caldwell, the former Commandant of CGSC, describes in his Foreword remarks in the U.S. Army CGSC's publication *Design: Tools of the Trade*, by Jack Kem, "Design is not a process, but a set of 'thinking tools' that complement and reinforce our operations process with a rational, logical approach to an increasingly complex and dynamic operational environment" (Kem 2009: iii). Kem also indicates in the first chapter that the new way of thinking in Army plans and operations reflects the reasons that the Army updated its capstone field manual, *Operations* (FM 3-0):

The manual reflected six years of wartime experience, written in response to a changing environment characterized by:

- An era of persistent conflict
- Operations among the people
- A pervasive information environment
- Unpredictable, asymmetric threats
- Conflict resolution that requires a "whole of government" approach

(Kem 2009: 3).

From the Army's emerging doctrine, there are essentially five mental activities expressed from employing this critical and creative thinking skill called Design.<sup>12</sup> The first activity is to *understand the current context*, which entails understanding the environment, why it exists as it does, how it got to the state that it is in, and what that means for all the actors involved. The second activity is to *visualize a future context*, or desired state, based on the perspectives of all stakeholders involved in the environment. The third activity is to *develop a problem frame* that articulates the difference between the current environment and the potential future environment. It should clearly articu-

late the obstacles impeding the movement of the environment from the current setting to the envisioned one. The fourth activity is the development of a “*theory of action*” that will help change the environment to the desired state, one in which the correct problem is solved.<sup>13</sup>

The fifth activity is to develop a *continuous assessment system*, to gauge a) if the environment frame and problem frame are the correct frames, and b) that the approach is shifting the environment from one to the other. The goal is not to predict where reframing will need to occur, but merely to anticipate that it will, by humbly assuming that the hypotheses that form the three design frames (the environmental frame, the problem frame, and the solution frame) are faulty in some manner. This assessment system will eventually develop into identifiable measures of performance (MOPs) that indicate if the organization is implementing the approach correctly, and measurements of effectiveness (MOEs) that indicate that the approach is in fact shifting the current environment to the desired environment. Based on the prevalence of negative indicators in the MOPs or MOEs, military organizations may adjust how they are implementing the solution, or they may have to reframe either the environmental or the problem frame and then adjust the theory of action, or the approach, to solving the problem. This indicates not only that the development of the measures of performance and effectiveness should be developed holistically, with all stakeholders’ perspectives taken into account, but that they need to be developed early in the preparation phase.

A final and very important note is needed about the “how” of Design, according to the way the Army has indoctrinated it and is teaching it at the CGSC. While the five mental activities described above are presented in an apparent lock-step and iterative manner, they are in fact conducted simultaneously in a holistic fashion, even though the Commander’s and his staff’s efforts may be emphasizing one activity more than another. And while there will be a tendency to want to rationalize them as just another planning or decision making process, they are in fact, more: they constitute a different form of sense-making, required for the problem solving of complex problems. A simple and successful example of a process that uses Design thinking as described above is Peter Checkland’s and John Poulter’s *Soft System Methodology* (Checkland and Poulter 2006).

These five Design mental activities represent a seismic change for how the U.S. Army conducts its planning. As an organization, the Army has long developed in its leaders the cognitive skills required for a strategic and logical rationale for its problem-solving methodologies.<sup>14</sup> The process for analysis was linear in its logic, lock-

stepped, and driven by a single individual, the commander. However, these Design activities require a change in the cognitive processes needed, to see issues from the perspectives of others, even if those others are your real or potential enemies. Additionally, the cognitive skills used in Design are not just requisite individual skills, but require the collective skills of all members of a planning organization to identify and frame issues in a creative and holistic fashion based on a communicative rationale. This requires not only employing a creative cognitive skill, but also employing collaborative analytic activities that develop approaches to the identified problems in a manner that accounts for all stakeholders' perspectives.

This fundamental collaborative characteristic of Design is causing the Army to evolve even further in order to incorporate this concept fully. Internally, this means that commanders, while retaining overall authority and responsibility, have to share with their staffs the authority for sense-making of the environment. Previously, commanders would set the boundaries of analysis and the staff would work within those boundaries to solve the problem as the commander saw it. However, as FM 5-0 states, "today's operational environment presents situations so complex that understanding them – let alone attempting to change them – is beyond the ability of a single individual" (FM 5-0: 3-4). Now both commander and staff must jointly set the boundaries of the perceived problem. Externally, this means that Army units not only have to take into account other worldviews, like those of other U.S. Government agencies, international organizations, or the local population, but they may even have to collaborate with them to gain a full appreciation of the environment, its problems and how to move forward. This incorporation and working with others has even, sometimes, included the enemy. In Iraq, for example, strategists recognized that the best way to get rid of the extremists who were attacking U.S. soldiers was to "work with them" (Ricks 2009: 157).

So how does this apply to what conflict management professionals may normally associate with negotiation theory? I would argue that the preparations that all conflict management practitioners go through to manage conflict in complex adaptive settings are similar to those that the military professionals have to go through, when their practitioners determine that the use of violent military force is not feasible, acceptable, or appropriate to accomplish their goals. Therefore, Design as applied in military problem-identification and solving processes during the preparation for military operations in complex adaptive settings is applicable to the evolving "Negotiation 2.0" theory for general conflict management professionals, specifically in the negotiation preparation period that all conflict man-

agement professionals must undertake in the complex adaptive settings in which they too operate.

## Conclusion

What this chapter has attempted to demonstrate through the presentation of a military example of a wicked problem is the need to develop cognitive skills that allow for creative and critical judgment, in deciding a course of action to pursue when solving such complex problems in conflict. This example also demonstrates the need to create a different training or education approach, one that instills in the professional conflict practitioner the ability to judge how, when, and in what degree to employ negotiation skills to solve complex problems, when the normal principles of negotiation are not easily applied in the manner prescribed in current negotiation pedagogy.

The application of Design doctrine to the Army's current professional education courses on problem solving is an arduous process, one not easily conveyed through the military's classical regimented drill and training methodologies. I anticipate that the task of conveying this information to other students of negotiation would be just as arduous, as it requires a level of appreciation of complexity that a classical "Negotiation 1.0" training regimen cannot convey. This issue raises the question of what is the best way of teaching this type of thinking for students of negotiation – in the military or in very different organizations – who will need to employ negotiation skills in complex adaptive settings. The next volume in the *Rethinking Negotiation Teaching* series will begin, but certainly not conclude, a discussion of this critical question.

## Notes

<sup>1</sup> The views expressed are those of the author and not necessarily of the Department of the Army, the U.S. Command and General Staff College, or any other agency of the U.S. Government. I would also like to express immense gratitude to Christopher Honeyman, Jayne Docherty, James Coben, and Howard Gadlin, all of whom helped nurture this chapter into its present form through patient editing, without which many of my ideas would not be as well articulated. However much help they were, I humbly will admit that any and all mistakes are completely mine.

<sup>2</sup> By conflict professionals I mean those professionals in the government, private, and nonprofit sectors who deal with conflict, i.e., the military, lawyers, diplomats, NGO representatives, labor mediators, lobbyists, etc.

<sup>3</sup> For purposes of this chapter, the term "wicked" describes problems that exhibit some combination of the following features:

- The problem is ill-defined and resists clear definition as a technical issue, because wicked problems are also social, political, and moral in nature. Each proposed definition of the problem implies a par-

ticular kind of solution which is loaded with contested values. Consequently, merely defining the problem can incite passionate conflict.

- Solutions to a wicked problem cannot be labeled good or bad; they can only be considered better or worse, good enough or not good enough. Whether a solution is good enough depends on the values and judgment of each of the parties, who will inevitably assess the problem and its potential solutions from their respective positions within the social context of the problem.
- Every wicked problem is unique and novel, because even if the technical elements appear similar from one situation to another, the social, political, and moral features are context-specific.
- A wicked problem contains an interconnected web of sub-problems; every proposed solution to part or the whole of the wicked problem will affect other problems in the web.

See generally Rittel and Webber (1973), Ritchey (2005-2008) and Conklin (2005). This stands in sharp contrast to the nature of problems that the planning profession has labeled "tame." As summarized by Ritchey (2005-2008: 1), a tame problem:

- Has a relatively well-defined and stable problem statement.
- Has a definite stopping point, i.e., we know when a solution is reached.
- Has a solution which can be objectively evaluated as being right or wrong.
- Belongs to a class of similar problems which can be solved in a similar manner.
- Has solutions that can be tried and abandoned.

<sup>4</sup> Even the term "doctrine" differs in military and civilian settings. Military doctrine is a guide to action, not a set of rigid rules. It provides a common frame of reference across the military in an effort to standardize operations and facilitate readiness, by establishing common ways of accomplishing military tasks. Doctrine must change in the face of new ground realities, which is why military doctrine has undergone such rapid and significant revisions in the past ten years.

<sup>5</sup> Many of the so-called "new" conflicts are not new at all. They were simply being repressed and distorted by the superpower rivalry of the Cold War. Once that pressure was removed, the conflicts became more violent and more prone to expansion.

<sup>6</sup> There has been a parallel development of civilian activities to help societies torn by violent conflict. Jayne Seminare Docherty is writing a paper about civilian peacebuilding as an emergent profession responding to wicked problems. She is finding similar issues about the role of negotiation in these contexts.

<sup>7</sup> For examples of the complexities in Iraq, see Ricks (2009) and Robinson (2008).

<sup>8</sup> For a case study of lessons learned from Kosovo, see Covey, Dziedzic, and Hawley (2005). One take-away lesson is the importance of a "custodian" of the peace process (see Chapter 4 of Covey, Dziedzic, and Hawley 2005). The

custodian emerged late in the Kosovo process out of the chaos recounted by Calvin Christie (*Negotiating Wicked Problems*, Chapter 25 in this volume). It is not at all clear from subsequent experience that a clear custodian is readily established in situations such as Iraq, where coalition forces and local political leaders vie for credibility and legitimacy.

<sup>9</sup> The *Interagency Conflict Assessment Framework* (2010), developed by an interagency working group and now being used and refined by the Office of the Coordinator for Reconstruction and Stabilization, is one of several initiatives to promote “unity of effort” based on a shared understanding of the situation that is derived from an assessment of threats and opportunities.

<sup>10</sup> There are several problems with this “top down” initiative. First, reconciliation is a long-term process that requires opportunities for truth-telling and, if possible, restorative justice activities along with opportunities to rebuild trust. Second, the legitimacy of the Iraqi government was not universally acknowledged, so the mandate itself was suspect. And last but not least for 2-14 Cavalry, it was not clear whether the Iraqi national government seriously wanted reconciliation or whether they were acting at the behest of coalition forces and outside advisors. Insofar as the local people suspected that national reconciliation was either a ploy by some at the national level to enhance their own power or an effort by international actors to build an Iraq to their own liking, Cavalry 2-14 was working against the handicap of suspicion about their motives and integrity.

<sup>11</sup> As Jayne Docherty argues in a work-in-progress (tentatively titled *Wicked Problems in Peacebuilding*) being developed for the next book in this teaching series (copy on file with author):

“Reconciliation is *not* accomplished through the kinds of negotiations taught in “Negotiation 1.0” training programs. Reconciliation is a long-term process that requires opportunities for truth-telling and, if possible, restorative justice activities along with opportunities to rebuild trust. In this case, if the Army personnel had been trained to use collaborative learning instead of or in addition to standard negotiation techniques, they would probably have uncovered the truth about the killings more quickly, and then could have asked the parties to help them identify culturally appropriate ways to negotiate a durable reconciliation process.... In other words, they stumbled their way into using collaborative learning techniques. Thus did 2-14 Cavalry find its own way into peacebuilding practice. More appropriate and more sophisticated training, however, would probably have speeded up that process....”

<sup>12</sup> The FM 5-0 currently only articulates four activities, or components: framing the environment; framing the problem; developing the operational approach; and reframing. However, once these components are unpacked, the reader can extrapolate the five activities presented in this paper.

<sup>13</sup> Currently, Army practitioners are using the term “operational approach” as opposed to “theory of action.”

<sup>14</sup> For a detailed explication of the four rationality paradigms underlying this approach (strategic, communicative, coordinating, and frame-setting), see Alexander 2000. The type of rationality paradigm required by the cognitive process discussed in this section is communicative, that is, a holistic



approach. This is in stark contrast to "Negotiation 1.0" pedagogy, which places a primary emphasis on the strategic.

## References:

- Alexander, E. R. 2000. Rationality revisited: Planning paradigms in a post-post modernist perspective. *Journal of Planning Education and Research* 19: 242-256.
- Bingham, G. 1986. *Resolving environmental disputes: A decade of experience*. Washington, DC: Conservation Foundation
- Cardon, E. C. and S. Leonard. 2010. Unleashing design: Planning and the art of battle command. *Military Review* XC (2): 2-11.
- Carpenter, S. L. and W. J. D. Kennedy. 1991. *Managing public disputes: A practical guide to handling conflict and reaching agreement*. San Francisco: Jossey-Bass.
- Carpenter, S. L. and W. J. D. Kennedy. 2001. *Managing public disputes: A practical guide for government, business and citizen's groups*. San Francisco: Jossey-Bass.
- Checkland, P. and J. Poulter. 2006. *Learning for action: A short definitive account of soft systems methodology, and its use for practitioners, teachers and students*. West Sussex, England: Wiley and Sons.
- Conklin, J. 2005. Wicked problems and social complexity. In *Dialogue mapping: Building shared understanding of wicked problems*, edited by J. Conklin. New York: Wiley.
- Covey, J., M. J. Dziedzic, and L. R. Hawley. 2005. *The quest for a viable peace: International intervention and strategies for conflict transformation*. Washington, DC: United States Institute for Peace.
- Docherty, J. 2006. The unstated models in our minds. In *The negotiator's fieldbook: The desk reference for the experienced negotiator*, edited by A. K. Schneider and C. Honeyman. Washington, DC: American Bar Association.
- Forester, J. 1980. Critical theory and planning practice. *Journal of the American Planning Association* 46: 275-286.
- Forester, J. 1985. *Critical theory, public policy, and planning practice*. Cambridge, MA: MIT Press.
- Forester, J. 1999. *The deliberative practitioner: Encouraging participatory planning processes*. Cambridge, MA: MIT Press.
- Honeyman, C., J. Coben and G. De Palo. 2009. Introduction: The second generation of negotiation teaching. In *Rethinking negotiation teaching: Innovations for context and culture*, edited by C. Honeyman, J. Coben and G. De Palo. St. Paul, MN: DRI Press.
- Kegan, R. and L. L. Lahey. 2009. *Immunity to change: How to overcome it and unlock potential in yourself and your organization*. Boston: Harvard Business School Press.
- Kem, J. 2009. *Design: Tools of the trade*. Fort Leavenworth, KS: US Army Command and Staff College. Available at [usacac.army.mil/cac2/repository/Materials/Design.pdf](http://usacac.army.mil/cac2/repository/Materials/Design.pdf) (last accessed June 25, 2010).

- Lederach, J. P. 1997. *Building peace: Sustainable reconciliation in divided societies*. Washington, DC: United States Institute of Peace.
- Ricks, T. 2009. *The gamble: General Petraeus and the American military adventure in Iraq, 2006 -2008*. New York, NY: Penguin Press.
- Ritchey, T. 2005-2008. *Wicked problems: Structuring social messes with morphological analysis*. Swedish Morphological Society. Available at [www.swedmorph.org](http://www.swedmorph.org) (last accessed June 28, 2010).
- Rittel, H. W. J. and M. M. Webber. 1973. Dilemmas in general planning theory. *Policy Sciences* 4: 159-163.
- Robinson, L. 2008. *Tell me how this ends: General Petraeus and the search for a way out of Iraq*. New York, NY: Public Affairs.
- Schultheis, R. 2005. *Waging peace: A special operations team's battle to rebuild Iraq*. New York: Gotham Books.
- Stewart, R. 2007. *The prince of the marshes: And other occupational hazards of a year in Iraq*. New York: Harvest.
- Susskind, L., S. McKernan, and J. Thomas-Larmer (eds). 1999. *The consensus building handbook*. Thousand Oaks, CA: Sage
- U.S. Army Field Manual (FM) 3-24. 2007. *Counter-insurgency operations*. Washington DC: U.S. Government Printing Office.
- U.S. Army Field Manual (FM) 3-0. 2009. *Operations*. Washington DC: U.S. Government Printing Office.
- U.S. Army Field Manual (FM) 5.0. 2010. *The operational process*. Washington DC: U.S. Government Printing Office. Available at <http://www.fas.org/irp/doddir/army/fm5-0.pdf> (last accessed July 30, 2010).
- Waldrop, M. M. 1992. *Complexity*. New York: Simon and Schuster.
- Wheeler, M. and G. Morris. 2002. A note on maneuvering in war and negotiation. *Harvard Business School Note* 9-902-157.