

## Teaching Wickedness to Students: Planning and Public Policy, Business, and Law

*Sanda Kaufman, Roy Lewicki & James Coben\**

*Editors' Note: Many readers of this book, and this series, may start out thinking that of all the problems and all the issues and all the techniques they need to engage with as teachers of negotiation, at least they can leave "wicked problems" to specialists in international, environmental, race relations and other "intractable" conflict. Howard Gadlin's analysis in chapter 20 of the role of wicked problems inside any large organization should be enough to give pause to that complacency. This chapter's three authors normally encounter students who are more "typical," recent-graduate-level, and classroom-oriented than the midcareer military professionals discussed by Leonard Lira and Rachel Parish in chapter 18, or the often middle-aged, returning students in the graduate program in peacebuilding described by Jayne Docherty in chapter 19. The authors candidly assess barriers and offer up a series of practical recommendations for teaching "wicked problems" in planning and public policy, business, and law programs.*

### Introduction

Should we even try to teach about "wicked problems" in planning school, business school, or law school negotiation courses? Can we

---

\* **Sanda Kaufman** is a professor of planning, public policy and administration at Cleveland State University's Levin College of Urban Affairs. Her research spans negotiation, intervention, framing and intractability in public conflicts, participation in public decisions, decision analysis, risk communication, and program evaluation. Her email address is s.kaufman@csuohio.edu. **Roy J. Lewicki** is the Irving Abramowitz memorial professor emeritus in the Max M. Fisher College of Business at The Ohio State University. His email address is lewicki\_1@fisher.osu.edu. **James Coben** is a professor of law and senior fellow in the Dispute Resolution Institute at Hamline University School of Law, and co-director of the Rethinking Negotiation Teaching project. His email address is jcoben@hamline.edu.

hope to do so with any effectiveness? Keeping in mind a key wicked-problems principle – that context matters – we assess below the potential value, and the prospects, of a serious attempt to incorporate wicked problems teaching in three distinct teaching domains.

We begin with Sanda Kaufman because planning and public policy often involves wicked problems. From her perspective, this is not new material. If you examine planning and public policy challenges long enough and with enough depth, she argues, you realize that they are all complex (and often wicked); and planners and policy makers know it. That said, Sanda goes on to describe how planners and policy types still fall into typical traps (zeroing in on the technical problem at hand to the exclusion of the rest; isolating problems in ways that limit tradeoffs; etc.). The teaching recommendation: teach ways of thinking, rather than teaching solutions; teach humility; demand “thick” stakeholder analysis; and recognize that not everyone can do this (some skills cannot be taught).

Roy Lewicki then succinctly describes why business school negotiation training has systematically ignored the skills critical for solving wicked problems. He explores three root causes: 1) an intellectual heritage based on a bilateral negotiation perspective; 2) a controlling economic paradigm that favors outcome maximization, from a partisan point of view, over issues/perspectives (many non-economic) that are often more characteristic of wicked problems; and 3) research paradigms, influenced by economics and psychology, which tend to isolate contextual factors and oversimplify complex problems. Roy then describes how these forces shape the business school negotiation teaching agenda, and concludes with recommendations for change, including a call for better exchange between negotiation teachers across disciplines, as well as between effective practitioners and teachers.

James Coben closes by focusing on a much narrower question: what exactly will he *do* differently in his two-credit (1400 classroom minutes<sup>1</sup>) law school negotiation course, the next time he teaches it? Noting that the traditional negotiation “canon” (see Lande et al., *Principles for Designing Negotiation Instruction*, in this volume) is necessary to provide the transactional tools necessary to handle many typical lawyering assignments, Jim goes on to posit that lawyers have an ethical obligation to assist their clients to critically examine dispute definition (and be open to the possibility that the “presenting” binary dispute is, in fact, a symptom of a systemic conflict that will necessitate different negotiating tools and tactics, to address it with any success.) He follows with a modest proposal: four “small” shifts in his teaching agenda that should help prepare students to effectively take on this ethical obligation.

## Planning and Public Policy (Sanda Kaufman)

### *What is Wickedness (in public decision making)?*

We used to say that (policy, planning and environmental) public disputes are symptoms of an underlying conflict. Resolving them does not mean we have resolved the conflict, which can only be managed (a spin of Horst Rittel and Melvin Webber (1973), who were speaking of social problems). Conflicts that drag on for years, and flare up in various disputes that subside and reappear repeatedly, are indicative of the presence of wicked problems.

Context matters, indeed. What and how to teach about how to handle wicked problems in a negotiation situation may vary, in accordance with the specific roots, manifestations and consequences of “wickedness” and the means at the parties’ disposal. We see this variation reflected in the chapters that address wicked problems in this volume. In the realms of public decisions – planning, public policy, administration and management – “wicked” problems stem from situations with characteristics overlapping neatly with the hallmarks of “complexity,”<sup>2</sup> including:

- Highly interdependent social systems that often interact with the natural environment: for example, the building of the U.S. highway network in the 20th century – beneficial to the economy and to people’s lives at a time when fossil fuel energy appeared plentiful – has also led to urban sprawl around many cities. Not only has urban sprawl fragmented and impaired natural habitats, it has also contributed to central cities’ decline, and no longer appears economically or environmentally sustainable. Interdependence effects are aggravated by the threshold nature of change in some systems. In social-ecological systems, changes do not necessarily occur gradually in proportion to inputs, but rather in stepwise fashion, when certain input thresholds are reached. These systems tend to have a fractal nature (similar levels of complexity at all scales), and exhibit unpredictability, and “openness” – the lack of precise boundaries for either problem definition or solutions. We see many of these characteristics at work in global climate change processes and effects, so it is less than surprising that there is no agreement on either the problems climate change poses or on effective solutions.
- Slow feedback from decisions: consequences tend to exceed the decision makers’ life spans. This trait infuses heightened uncertainty in momentous decisions that are costly now, with (imperfectly known) consequences for many over the long

haul, when those who made the decisions will not incur their effects. This is coupled with diminished learning: wrong models of reality that drive today's decisions fail to be invalidated because by the time sufficient evidence accumulates, it can no longer be traced back to its causes. Accountability is also lacking over such long time periods, inducing more overconfidence and risk-taking in decision makers than would be the case if feedback occurred swiftly. Those who built the highway systems did not foresee rising fossil fuel prices, the consequences of lead pollution or acid rain, or the contribution of emissions to climate change. They cannot in any practical way be held accountable for decisions from which they benefited that turned out to have broad negative consequences. In turn, current decision makers will not have to account for their mistakes. Although we have numerous examples of past decisions that had unpredicted consequences and turned out unwise in the long run, in general today's decision makers do not seem to have understood that they are just as unable to predict the future accurately as their predecessors.

Planning and other public decisions shape the physical space, which has memory. Spatial effects of decisions endure and are cumulative. Since we cannot start over when we realize the error of our past ways or understand better some cause-effect linkages, we have to build on what already exists. Previous decisions with spatial consequences have restricted our options for the future, and our current decisions continue to narrow the set of future alternatives. For example, although we now find suburbs problematic for a host of reasons (inefficient use of land and of public resources, fragmentation of natural habitats, social isolation, etc.) we cannot recreate metropolitan space according to our current understanding and circumstances. Nor can we accede to some deep ecologists' demands to restore land to its pre-colonization state. This inability to backtrack and start over has been called path dependence, and has a parallel in negotiations. It means that some outcomes that were possible in a system at the outset (or acceptable to negotiators at the beginning of a dispute) become infeasible (or unacceptable to negotiators) in time, as various decisions are gradually implemented in the system and leave their mark (or as negotiators move from one proposal to another). In addition, in both social-ecological systems decisions and in negotiations, intervening implementation issues, defaults on interim agreements, and commons incentives alter the situations sufficiently in time to render some initially desirable solutions infeasible or unacceptable.

People make individual and joint choices at various scales that affect the physical and social environments. Their thinking is afflicted by cognitive difficulty with large amounts of information; limited knowledge about how socioeconomic and natural systems work and interact; a tendency to focus on one cause and one effect at a time; confusion between correlation and causality; mental models that do not correspond well to reality; impatience; and other difficulties that impair understanding, predictions, the generation of solutions that match the complexity of the targeted systems, and learning from past mistakes (Dörner 1994).

Wickedness – in the guise of surprising, unintended decision consequences that are sometimes irreversible by the time they are detected, and that accrue to others than those who reaped the short-term benefits – emerges at the intersection of highly complex situations with people’s difficulty in dealing with them, and with institutional arrangements that partition the space of decisions (e.g., Bazerman and Watkins 2004). In the example of the U.S. highway system, the current generation lacks the resources for altering the resulting interlinked spatial configurations – which amply benefited some in past generations – to reduce reliance on automobiles and promote less polluting and less carbon-intensive transportation means. Moreover, attempts to implement system-wide change to adapt to new circumstances give rise to protracted conflicts. In the context of interdependent social-ecological systems, change often means perceived and real winners and losers.

Some of the current disputes around wicked problems at scales ranging from local to global include: to frack or not to frack; calls to dismantle the O’Shaughnessy Dam (built in 1913) that forms the Hetch-Hetchy Reservoir in the Yosemite National Park; and preventing or mitigating effects of global climate change. Negotiations over the design of national policies such as health care or reforming tax and immigration laws or intervening in intra- and international wars (e.g., Syria, Mali, Asia’s Pacific Rim) also have some of the attributes of wicked problems, due to the scale of both the problems and consequences to very large numbers of different people.

These examples suggest that because globally interacting systems are involved, wicked problems can emerge at very different spatial scales, and may have consequences exceeding the geographic location of their source. We also get the sense that not all wicked problems are equally severe. However, if we attempted to generate “wickedness criteria” we would be confronted not only with serious measurement challenges, but also with conflicts stemming from value differences. We might have to weigh contemporary suffering and loss of life against

the (predicted) quality of life of future generations; environmental damage versus damage to human systems; or the geographic distribution of sacrifices today for a promised collective future (though one neither necessarily evenly distributed nor certain to be better.) Thus one aspect of the wickedness of planning and policy problems resides in implied value choices we may be reluctant to formulate, let alone implement. This is one of the drivers of the intractable quality of conflicts surrounding wicked problems.

Note that complexity, wickedness and intractability intersect. Wickedness and complexity share several characteristics. So do wicked problems and intractable conflicts. However, not all complex problems are wicked; also, intractable conflicts are not necessarily rooted in wicked problems. For example, value conflicts are difficult but not wicked, as seen in longstanding conflicts surrounding abortion, gun control, gay rights, some international disputes and some lengthy planning disputes. Some wicked problems share with intractable conflicts a duration that exceeds even the longest of human life-spans. In fact, we deem conflicts to be intractable when they seem to have no end in [our] sight. Nevertheless, history is replete with conflicts that ended after decades, and even centuries, during which they surely appeared intractable to their contemporaries. Time plays a (largely unpredictable) role in wicked problems too, in the delay between decisions and results, often in areas other than where they were enacted.

To summarize, planning and public policy wicked problems involve many parties, unfold over long time periods with low feedback, tend to entail consideration of few decision factors relative to the scale of the problem, and hinge critically on correct mental models of reality (because causal links are difficult to verify and effects are difficult to attribute to causes, due to the time lags between action and consequence). Nothing stands still in systems that have numerous quasi-independently moving parts and lack precisely definable boundaries, so it is difficult to accumulate experience or to predict consequences which are at times irreversible.

### ***Where Does Negotiation Come Into Wicked Planning and Policy Decisions?***

Wicked problems cut across physical, political and organizational boundaries. They occur in contexts in which resources are limited, where some irreconcilable interests, risk preferences and values are in play, and where numerous needs compete for attention. Wicked problems require decisions that entail politically and morally difficult tradeoffs between present and future, local and other scales, various issues and various interest groups. For the individuals directly

involved, conflicts between self-interest and the broader (organizational or public) interests are also always present.

Within democratic societies, public decisions that attend to wicked problems require negotiations among stakeholders, including both those having specific decision mandates and others able to claim a place at the decision table. The negotiation processes that yield implementable public decisions are often resource- and technical information-intensive, lengthy, complicated, and context-specific, involving numerous parties with varying levels of skill, experience, creativity, responsibility and commitment.

### *Teaching Negotiations in a “Wicked” Context*

In light of the nature of planning and public policy decisions and their likelihood of encountering or even giving rise to wicked problems and to serious conflicts, what should we teach students (or planning and public policy professionals) and how? The answers may vary in terms of actual content and means, but we might at least explore some objectives and prescriptions.

I propose that we should strive to help students become effective stakeholders, able to participate in negotiated decision processes and to represent their own and their constituencies’ interests. This means equipping students with approaches and tools, rather than specific fixes, in recognition of both the uniqueness of each decision context and the shared characteristics of complex situations as well as sources of wickedness and intractability.

Some prescriptions: We should model in the classroom ways of thinking and interacting with others that can surface, and help avoid, wicked traps. We should show that we expect problems to be difficult to unpack and understand, solutions to be difficult to devise and implement, results to surprise us, and the future to be difficult to predict. We should strive for specificity, and discourage discussions in terms of generalities that obscure responsibilities and resource limits, or that contain implicit value judgments. We should surface our cognitive shortcomings. Whenever possible, we should explore scenarios of alternative courses of action and their consequences, rather than considering one solution. We should show respect for the real stakeholders of situations discussed in class, and assume them to be rational even when they do not conform to our own notions of rationality. We should avoid Manichaeian attitudes, apply healthy doses of doubt to information especially when it *conforms* to our own worldviews, and surface frames and differences between factual knowledge and our own and others’ beliefs. We should model humility – the sense that we may not understand as much as we think we do (hubris is

particularly dangerous in a wicked context) – and admit that the best answer to many negotiation questions is “it depends.”

This is a tall order, much easier said than done, especially within a single negotiation course. Perhaps learning how to become a skillful public decision maker should not be relegated to negotiation courses. Rather, some of the necessary skills, such as recognizing the hallmarks of wicked problems and preparing for negotiation through thorough systems and stakeholder analyses, can be included in several other courses and in projects in the same way as it would be necessary in practice. After all, we do not bring up ethics only in an ethics course, or data analysis only in a quantitative methods course. Ideally, as the primary vehicle for making public decisions, negotiation should come up whenever such decisions are discussed. Perhaps we might engage our colleagues in efforts to identify where and how they could include negotiation insights and skills in their courses on other topics. Nevertheless, we are still left with the task of teaching within a short time span about negotiation practices that unfold over long time periods, in multiple venues, in continuously changing circumstances, and with high stakes that are often outside students’ experience, and therefore more difficult to understand.

Arguably, teaching public decision negotiation while contending with wicked problems requires addressing complexity-related topics, which is not necessary when teaching negotiation in other contexts. We may need to devote time to developing “thick” stakeholder analyses, as well as understanding the role of context, scale, and institutional structures that shape the decision making processes. One key skill is recognition of the incentives implicit in specific contexts, such as the commons dilemma incentives (Hardin 1968) that tend to contribute to intractability in public disputes. For example, commons incentives account at least in part for repeatedly failed international negotiations over global climate change.

Another set of skills that tends to be specific to public decision negotiations and is particularly difficult to convey in a classroom setting is negotiation process design. It too runs against time limits, the need for practice and the fact that this activity lies outside most students’ experience. Perhaps one of the best vehicles for conveying some of these negotiation skills is apprenticeship with seasoned negotiators or mediators (for a deeper discussion, see Matsuura et al., *Beyond “Negotiation 2.0,”* in this volume), rather than classroom work.

In the process of teaching negotiations we need to encourage multiple understandings of wicked problems, and expose students to others’ ways of thinking. (It is nigh impossible to negotiate with others whose thinking we dismiss as illegitimate, irrational or ill-moti-

vated because it is different from our thinking.)<sup>3</sup> We need to instill a healthy skepticism of one-cause, one-fix solutions. We also need to insist on rich explorations of decision consequences across systems, and of the meaning of non-decisions (or no-agreements): failing to make a decision is a decision too. It may seem to be an expeditious way of avoiding some negative consequences, but it amounts to deciding to live with a (stable or deteriorating) status quo. We may also need to convey the real possibility that wicked problems may linger beyond our lifetime, and that we do not have a “fix” for every problem we can describe.

Finally, we the teachers and trainers may have to recognize that perhaps some skills cannot be taught (and we ourselves may not have mastered them either). Negotiating public decisions requires personal talent, a high degree of empathy, charisma, leadership, patience, and the ability to share credit for successes and shoulder the blame for failures. We may want to select our “decision heroes” and study their qualities. We should honestly convey to students that not everyone is cut out to be a negotiator in the context of wicked problems.<sup>4</sup>

## Business (Roy Lewicki)

### *Why Business School Training in Negotiation Skills Has Ignored the Skills Critical for Solving Today's Wicked Problems*

Negotiation training in business schools has fundamentally ignored a negotiated approach to wicked problems.<sup>5</sup> What are the origins and causes of this orientation (or misorientation)? The reasons can be traced to three basic causes, all of which are rooted deep in the intellectual heritage and evolution of “business negotiation” theory and teaching practice.

#### **The intellectual roots of business negotiation**

First, the intellectual heritage for the study of negotiation in business has been the bilateral negotiation model: that is, individual on individual, or group on group. The primary applications were the earliest and most visible sources: labor relations and industrial purchasing. The dominant influence was the growth of more formalized labor relations through the late 1800s and early 1900s. The historical roots of this heritage lie in the evolution of the Railway Labor Act. The initial roots of the Act, in turn, were in the late 1800s, and were designed to introduce mandatory government arbitration into crippling commercial labor strikes. The Act led to a stream of additional legislation through the late 1800s and early 1900s; the early initiatives were designed to regulate abusive labor practices, but over the long term,

evolved into formalizing the “modern” collective bargaining process. Thus, the earliest roots of writing on business negotiation can be traced to observing negotiation dynamics as they occurred in the collective bargaining process, a bilateral process primarily conducted by union and management. But this process was always conducted in the shadow of the federal government, which occasionally intervened to both “rectify” abusive practices and terminate strikes that were against the national interest, as well as to provide intermediaries (arbitrators and mediators) who could intervene to break shorter term deadlocks.

A second intellectual root was drawn from the purchasing profession, where buyer and seller squared off over price and quantity. While purchasing was largely seen as a “clerical activity” for much of the early 1900s, the demand for scarce raw materials and the post-war boom required the purchasing function to evolve into a more sophisticated transaction process. Today, the purchasing field has evolved into a highly sophisticated process of managing purchasing, logistics and supply chain management (Wisner, Tan, and Leong 2011). A third intellectual root was occasionally drawn from international diplomacy, but that tradition did not strongly influence theory and development until years later.

The practical problems associated with effectively “managing” labor negotiations or the purchasing function engaged academics with strong social science backgrounds in economics and psychology/sociology. These conversations evolved into what has been called the industrial relations and organizational behavior approaches (c.f. Kochan and Verma 1983; Walton, McKersie, and Cutcher-Gershenfeld 2000 for summaries of this evolution). In the negotiation area the most dominant transitional theory building can be traced back to Richard Walton and Robert McKersie (1965). Working with some of the early industrial relations sources and the then-contemporary analytical tools of social psychology and sociology, these authors “reframed” the more technical issue-based dynamics of these complex negotiations into four major “subprocesses”: Distributive bargaining; integrative bargaining; attitudinal structuring and intraorganizational bargaining. Remarkably, these subprocesses – particularly the first two – tend to dominate the pedagogical approaches still in use. Theoretical grounding for the current approaches can also be found in the work of Jeffrey Rubin and Bert Brown (1975), Dean Pruitt (1981) and Howard Raiffa (1982), who significantly elaborated upon the tools and techniques of integrative or “principled” negotiation.

This intellectual tradition has tended to “bound” what is taught/studied in negotiation in a number of interesting but often unrecog-

nized ways (obviously, none of these are absolutes, but they strongly influenced the evolution of theory and research in the field):

- a) An ongoing assumption that negotiation is mostly a bilateral dynamic – labor vs. management, buyer vs. seller.
- b) An ongoing assumption that most “important” negotiations are distributive – i.e., they are fundamentally about competitive processes, although there has been creeping enlightenment about the importance of integrative, “win-win” processes. Almost all students who come to learn about negotiation in our classrooms bring the presumption that they are there to enhance their distributive deal-making skills.
- c) An ongoing assumption that “business negotiation” was largely to serve the interests of managers, both as advocates for themselves and as advocates for the “owners” (shareholders) whom they represent as agents. Hence, most of the prescriptive writing to managers about “how to negotiate” has been both asymmetric and prescriptive – i.e., how to behave as an “effective” negotiator in a bilateral negotiation, either when representing one’s own interests or when acting as an agent for others’ interests in a bilateral context (Kochan and Verma 1983).
- d) Even going back as far as labor relations in the 1920s-30s and the creation of the Railway Labor Act, the prescribed “intermediary” roles of mediators and arbitrators was “outsourced” to other professions, like law, public policy and diplomacy. Third-partyship (of almost any form – e.g., Ury 2000) – and the associated bridge-building skills – is still a hugely neglected topic in business schools, and when taught, generally only addresses how managers can use facilitation skills in the resolution of interpersonal disputes or in facilitating teamwork dynamics. Thus even though Walton and McKersie talked about other “sub-processes” in labor relations, such as intraorganizational bargaining and attitudinal restructuring, these threads have generally been ignored in negotiation training or relegated to other parts of a curriculum. The consequence is that business education in negotiation favors the advocacy perspective, as opposed to an orientation designed to bring parties together across complex problem boundaries, and the associated skills of doing so.

### An active dialectic

Second, as noted earlier, most management education in today's business schools is an active dialectic between two major intellectual traditions: economics and psychology. Economists attempt to prescribe how business (and business persons) should operate based on principles of economic rationality, while psychologists study how and why humans don't always behave consistently with economic rationality, and prescribe what to do about those deviations. Thus, even in the descriptive and prescriptive approaches to negotiation behavior, the economic paradigm is never very far away, implying that the primary emphasis for defining negotiation goals should be by measuring "outcome maximization" in economic terms and from a partisan perspective. Completely left out of many of these discussions are the sociological, ethical, legal and/or political perspectives on these issues – dimensions of a problem that often make it "wicked" – and/or these perspectives are marginalized in favor of "solutions" based on clear economic rationalities such as profit maximization or shareholder value.

### The influence of economics, mathematical modeling and game theory

Third, research paradigms for *studying* negotiation in the organizational behavior and applied economics tradition have been heavily influenced by the research traditions of the same two fields: economics, with a heavy focus on mathematical modeling, game theory and optimization, and experimental psychology, with its heavy focus on laboratory-based simulations, hypothesis-driven deductive approaches to research, and selection of only one or two variables at a time for examination. Both of these research approaches tend to eliminate or isolate the "contextual" factors that overwhelm complex negotiations and enhance wicked problems, hence oversimplifying the complex reality of wicked problem negotiations and problem solving processes. Within the business school traditions, ethnographic or case studies of complex situations have been continually undervalued as "less serious" and "less rigorous" research. "Cases" tend to be seen as teaching vehicles, not as complex research analyses, which further marginalizes the complex situational and time-line dynamics that make some problems "wicked."

Finally, because business school education is also dominated by the frameworks of traditional economics, the general presumption has been that there are "markets" of buyers and sellers and that in the event one cannot strike a deal with seller X in market A, one almost always has alternative choices of other sellers in other markets, and/or that conditions in market A may change so that alterations in price or

terms may become attractive to seller X. Almost no attention has been actively given to worlds in which there are no alternative sellers and/or where altering the “terms of sale” is not a viable possibility – also a characteristic of a wicked problem.<sup>6</sup>

### *Pedagogical Implications*

So, what have been the pedagogical implications of these three forces for the teaching of negotiation in schools of business and management?

First, business education is almost always limited to a dialectic between the economic and the psychological. Almost no attention is given to the legal, political, ethical or the sociological – either in the discipline’s analytical tools or in valuing these perspectives on business problems. My guess is that these conceptual bases run through the training in (some) other professional schools; but not business.

Second, most of the “core” teaching scenarios/teaching methods have focused on interpersonal dynamics, behavior in the context of game theoretic (simple) economic models, and distributive/integrative processes. These topics will comprise the first fifty-seventy percent of the content of any university-based seven- or ten-week negotiation course.

Third, the complex, “wicked” problems which pervade our broader society are given only marginal treatment in the business school, and usually in nonrequired “elective” courses such as business and society, environmental management, urban planning, economic development and healthcare management. Moreover, the learning methods in these classes tend to be through case method or guest speaker, in which the greater emphasis is dominantly placed on problem diagnosis, while greatly insufficient treatment is given to inventing and implementing complex solutions and evaluating their practicality or implementability. In short, the more “wicked” the problem, the less likely we are to be using proactive, action-learning methods to access it and experiment with solutions. In many cases, we do not even teach the tools of complex problem analysis, as advocated by Dörner – cognitive biases, etc. (see generally Matsuura et al., *Beyond “Negotiation 2.0”*, in this volume).

Finally, and surprisingly, there remains an active, ongoing gap between “knowing” and “doing” in the management professions (Pfeffer and Sutton 2000). This gap has been pointed out by many, both in terms of many areas where there is valid research knowledge that is not being adequately implemented, and in terms of situations where prescriptive action is being given which ignores a credible base of established research findings. A paper by Sanda Kaufman,

Christopher Honeyman and Andrea Kupfer Schneider – *Why Don't They Listen to Us?* (2007) – has shown how this dynamic persists in the training and implementation of negotiation skills as well.

It would be wise to end with some prescriptive implications. Here are three:

- a) There needs to be improved interchange between the effective practitioners and the dominant shapers of the field's pedagogy, to introduce creative new ways to teach about the parameters of wicked problems and some tools for moving forward their resolution. Training in negotiation and dispute resolution should focus on the complex dynamics of wicked problems. Creation of a handful of useful classroom simulations/cases/scenarios focused around the parameters of these disputes (c.f. Lande et al., *Principles for Designing Negotiation Instruction*, in this volume), as well as structured processes for “debriefing” and extending these scenarios, would enable more active instruction in this area.
- b) Attention should be given to creating “biographical profiles” and “case studies” of skilled professionals who are skilled handlers and solvers of wicked problems. This would help foster new training and development initiatives.
- c) Finally, there needs to be improved interchange between negotiation teachers across disciplines as to the “missing pieces”, both in conceptual models and/or in pedagogical tools for training negotiators and intermediaries.

In short, we need cleaner theory, but also enhanced ways to train practitioners in the complex dynamics of highly complex disputes. It is time for business faculty who teach negotiation – in collaboration with colleagues from related disciplines – to move beyond an emphasis on the simple buyer-seller market transactions, and move toward models and teaching approaches that engage the more challenging, socially complex, “wicked” problems that face society (*including* business as a key stakeholder). Much of this can be accomplished through “advanced” elective courses in negotiation, but can also be enhanced by developing instructional packages of materials (cases, role-plays, videos, teaching notes) that would further enable this instructional initiative.

## Law (James Coben)

*"Small moves, Ellie. Small moves."  
(Carl Sagan, screenplay for Contact)*

### *The Wicked Problem Challenge*

When Christopher Honeyman, Giuseppe De Palo and I first conceived the Rethinking Negotiation Teaching (RNT) project, none of us anticipated the series of chapters addressing wicked problems. Yet here we are.

These collected writings challenge me as a law school negotiation teacher to examine the "unconsciously held mental model of conflict as a technical problem" and acknowledge that some problems "cannot and will not be altered only or perhaps even primarily through transactional negotiation" (Docherty and Lira, *Adapting the Adaptive*, in this volume). Furthermore, the writings make it easy to see that my current negotiation teaching focuses on "linear movement through identifiable steps and stages (which of course has never been *entirely* the case)," that "can be analyzed largely in terms of 'technical' change – with the negotiator or intervener applying an external set of tools to solve a problem" (Chrustie et al. 2010: 451). This approach works well enough for "tame" problems that are amenable to solutions that are deemed "technical" (Docherty 2010: 481-482).

Wicked problems, in contrast, "require 'adaptive' responses that require negotiators or intervenors to modify their own views and behaviors, rather than merely applying tools to a problem outside themselves" (Chrustie et al. 2010: 451, citing Kegan and Lahey 2009). Focus only on the presenting problem, argues Jayne Docherty (2010: 484), and you run "the risk of doing great harm and making the problem even worse." Instead, argues Docherty, you "*must* negotiate problems related to the social order, which manifest in their conflict over defining the problem and in their conflict over judgment frames for assessing the legitimacy of their negotiation process, as well as the merits of proposed solutions" (2010: 484).

Wise practice in such a context involves a far broader (indeed, intimidating) set of activities than in the normal negotiation toolkit I provide my law students. It means adding such things as "conflict assessment; convening the parties and their representatives; learning together about each other, the evolving context, and options for resolution; negotiation; and monitoring implementation of the agreement, followed by possible renegotiation" (Docherty 2010: 484, citing Forester 1985).

Challenging indeed. Yet lawyers, perhaps better than some, might “appreciate” (in more ways than one) how dispute settlement often carries with it a host of “whack-a-mole” problems for clients – what Howard Gadlin (*Playing the Percentages*, in this volume) much more eloquently summarizes as follows:

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.

### ***Structural Limitations***

How, if at all, can I include this new information, taking into account the full treasure trove of topics not in the standard canon of negotiation? (For a complete but succinct list of syllabus-expanding possibilities, see Lande et al., *Principles for Designing Negotiation Instruction*, in this volume.)

My answer is guided in part by three observations about law negotiation education: First, the vast majority of my students get only a single shot at a negotiation course: two academic credits out of the eighty-eight required to graduate, a grand total of 1400 classroom minutes. (For insights into what becomes possible when given something like triple that amount of time, see Fox and Press, *Venturing Home*, in this volume.) Second, I am training future lawyers to be agents; lawyers who have a duty of loyalty to their clients and cannot ethically<sup>7</sup> “force them” to view their conflict (which they often frame as a “dispute” with a particular individual party, rather than as a conflict within a much more complex and multi-party universe) through a complexity/wicked problem lens. Third, I believe like John Lande (2012), that I have a primary duty to prepare students for the negotiations that they are most likely to encounter in their day-to-day post-graduate practice.

### ***The Lawyer as Counselor***

There is room within these structural limitations to at least consider the proposition that wicked problem “thinking” is relevant to a very broad range of “everyday” problems, and certainly not just intractable conflict. This includes situations lawyers regularly encounter,

notwithstanding most clients' tendency to present their conflict as a binary dispute with a single "opponent."

Moreover, I believe there is a case to be made that a lawyer/agent negotiator has an ethical duty to explore with clients the potential systemic (inevitably complex, sometimes wicked) implications of whatever "dispute" a client presents. The American Bar Association's Rule of Professional Conduct 2.1 states that

[i]n representing a client, a lawyer shall exercise independent professional judgment and render candid advice. In rendering advice, a lawyer may refer not only to law but to other considerations such as moral, economic, social and political factors, that may be relevant to the client's situation.

The published comment to the rule adds, with respect to "Scope of Advice," that

[a]dvice couched in narrow legal terms may be of little value to a client, especially where practical considerations, such as cost or effects on other people, are predominant. Purely technical legal advice, therefore, can sometimes be inadequate. It is proper for a lawyer to refer to relevant moral and ethical considerations in giving advice. Although a lawyer is not a moral advisor as such, moral and ethical considerations impinge upon most legal questions and may decisively influence how the law will be applied.

I believe that the modern ADR movement within U.S. law schools is partly a battle joined over how aggressively to interpret and operationalize this rule obligation and comment. Some thirty years ago, Carrie Menkel-Meadow fired the first salvo with her seminal work *Toward Another View of Negotiation: The Structure of Problem-Solving*, in which she asserted that:

Although litigants typically ask for relief in the form of damages, this relief is actually a proxy for more basic needs or objectives. By attempting to uncover those underlying needs, the problem-solving model presents opportunities for discovering greater numbers of and better quality solutions. It offers the possibility of meeting a greater variety of needs both directly and by trading off different needs, rather than forcing a zero-sum battle over a single item (1984: 795).

This was radical stuff at the time, with Menkel-Meadow suggesting that lawyers go well beyond legal issues (their “familiar” turf) to consider a wide range of client interests, including the impact of solutions on client relationships, social needs of the parties, personal feelings, psychological consequences of negotiated success or failure, and ethics concerns (1984: 802). Her recommendations included the then startling idea that “the lawyer ranks the client’s preferences in terms of what is important to the client rather than what the lawyer assumes about the ‘typical’ client” (1984: 804).<sup>8</sup>

In 1995, Paul Brest weighed in with the commonsense notion that “lawyers in everyday practice are called upon to help clients arrange their future affairs in dynamically changing situations where the facts, as well as the law, are anything but determinate” (1995: 7). How dynamic a world were these lawyer problem-solver pioneers envisioning? Certainly not as dynamic as the one the wicked problem writers describe for us today. Yet even in 1995, there was acknowledgment that “most real-world problems do not conform to the neat boundaries that define and divide different disciplines” (Brest 1995: 8).

Move forward seven years to Jackie Nolan Haley’s masterful article *Lawyers, Non-Lawyers And Mediation: Rethinking The Professional Monopoly From A Problem-Solving Perspective*, in which she drew the direct parallel between the theory and practice of problem-solving as an approach to lawyering and developments in the ADR and mediation movements more generally (2002: 246). In that classic work, Nolan-Haley summarized “[t]he essential attribute of a problem-solving orientation is a focus on parties’ underlying needs and interests rather than on their articulated positions” and documented that a “rapidly growing literature admonishes lawyers to shed adversarial clothing, think outside the litigation box, embrace creativity, create value, and move into the twenty-first century as problem-solvers rather than as gladiators” (2002: 246).

These scholarship efforts helped to transform how law teachers, and particularly ADR professors, conceptualized the work of lawyers – and with a nod to the controlling ethical rule, the role of lawyer “as counselor.” But they also helped frame a narrative struggle that continues to this day – as one classic counseling text frames it: traditionalists vs. problem-solvers.<sup>9</sup> Thus, for example, just last year my Hamline colleagues (and RNT contributors) Sharon Press and Bobbi McAdoo felt compelled to make the case for problem-solving being made part of the “core” law school curriculum, out of the concern that “marginalizing” problem-solving activities into “siloed” upper-level elective courses contributes to the perception that ADR is soft,

when compared to what “real lawyers” do (McAdoo, Press, and Griffin 2012: 40-41).

In other words, in the law schools, we are still waging the fight to make “legitimate” the problem-solving model of lawyering and negotiation that Menkel-Meadow advocated for thirty years ago. So when thinking about wickedness in the law school context, it pays to remember that the law profession (and legal education) is still one grappling with even the most modest of conflict definition expansions, albeit one that I would argue the ethical rules invite us to engage in.

### ***A Modest Proposal***

Keeping this larger battle in mind, I am “going small” with my response, believing that a wicked problem focus grounded in the lawyer’s ethical obligation to be an effective “counselor” gives me a way of reaching students with a message that conforms with their own expectations of applicable professional and educational norms (see Lande et al., *Principles for Designing Negotiation Instruction*, in this volume).

Accordingly, the next time I teach a two-credit negotiation law course, I will add the following learning objective to my existing list:

- Students will be able to think critically about the role and limitations of transactional negotiation as a tool for dealing with systemic conflict, including complex and wicked problems.

(For a much more robust set of possible wicked problem learning objectives, including the one mine is based on, see Docherty and Lira, *Adapting to the Adaptive*, in this volume.)

### ***My “Small Moves” Recommendations***

To operationalize my wicked problems learning objective, I will do four specific things. The first two are relatively “easy” in terms of time and implementation; the third and fourth are more demanding – for the students and the teacher.

#### **1) Expressly examine the assumptions and limitations of technical transaction negotiation**

The week one reading assignment will include a set of excerpts from the wicked problem chapters of the RNT project. As the course progresses and we study the distributive and problem-solving models detailed in the course textbook,<sup>10</sup> I will routinely ask students to articulate the assumptions built into the models we are studying, specifically inviting a wicked problems perspective. One prompt that I believe will be especially effective with law students is regularly to

ask a question inspired by Howard Gadlin (*Playing the Percentages*, in this volume): “If we are not to be limited to dispute settlement, how might we address individual disputes with an eye toward understanding them in the context within which they emerge and exist?”

## 2) Expand the list of planning questions to be used in every negotiation

Like most law teachers, I provide a negotiation planning form for my students. I will continue to do so. However, I will give them an additional assignment: How would they propose to modify the planning form to take account of systemic conflict, complexity, and even wicked problems? After students generate their own responses, I will distribute Howard Gadlin’s list of questions<sup>11</sup> from *Playing the Percentages*, in this volume, which offers his own take on how to “tease out” systemic factors underlying conflict.

## 3) Use at least one “complex” simulation

As Jayne Docherty and Calvin Chrustie (*Teaching Three-Dimensional Negotiation*, in this volume) so eloquently frame it:

Many activities used in negotiation pedagogy are quite clearly finite games. Participants are given a situation, a role, a set of rules, some pointers regarding what constitutes skillful play, and criteria for evaluating the outcomes of their play. The instructor starts the game and ends the game and evaluates the results of the play. Who did better or worse in the play? Who achieved better or worse outcomes? Some teaching games are even scored numerically. When organized this way, even the most complex cases become artificially simplified in the minds of the game players.

What gets left out of play when we teach negotiation this way? Pretty much everything needed to deal effectively with protracted social conflicts (Azar 1990), because those problems absolutely require “players” who are skilled at social negotiation, transactional negotiation *and* the connections among those different games.

Docherty and Chrustie are far from alone in describing the foibles of simplified simulations (see generally Druckman 2006 and Alexander and LeBaron 2009). “To really ‘get’ the parties’ and lawyers’ perspectives,” argues Lande (2012: 127), “students need to have more extensive interactions than are possible by simply ‘parachuting’ into a single-stage simulation.”

The problem, of course, is the “paucity of rich, reality-like simulations” (Matsuura et al., *Beyond “Negotiation 2.0”*, in this volume). As Roy already advocated above, we need to create more. Fox and Press (*Venturing Home*, in this volume) describe their own ambitious effort – a series of interactions between an American high technology startup and a Chinese technology manufacturing company (both based on actual publicly listed companies) “where students could research the real organizations and related issues as the course progressed.” In Fox and Press’s simulation, the students are assigned to their company throughout the course, over time “developing their own corporate culture and making decisions based on an increasingly rich and complex identity and history of decisions.” Lande (2012: 128-136) provides a host of insights regarding his own creation and use of multi-stage negotiation simulations in law school classrooms. Sanda Kaufman (Matsuura et al., *Beyond “Negotiation 2.0”*, in this volume) describes two public policy domain simulations – *Francilienne* (De Carlo 2005) and *Silver County* (Elliott et al. 2002) that offer models for immersing students in rich pools of factual information (e.g., media interviews, websites, agency documents, interviews with multiple stakeholders).

Too intimidated to create your own simulation? Then you might consider Daniel Druckman’s *Uses of a Marathon Exercise* (2006), detailing how to use case-studies to explore complexity. And for you risk-takers? Jayne Docherty (*Teaching Three-Dimensional Negotiation*, in this volume) offers up a detailed description of her use of “emergent scenarios” (a large-scale class exercise that starts with a “real” event and “an invitation to the participants to build a world within which that dramatic event has meaning”). As Docherty explains, “[t]he world, and therefore the negotiable problem or problems that arise from that world, is co-created by the participants, acting in characters that they animate in ways similar to an actor giving life to a character.”

#### 4) Include at least one adventure learning exercise

Chapters 7-14 of volume 2 of the RNT series fully explore the challenges and benefits of adventure learning, what Melissa Manwaring, Bobbi McAdoo and Sandra Cheldelin (2010: 127) summarized as involving “‘direct, active, and engaging learning experiences that involve the whole person and have real consequences,’ and that bring learners ‘out of their comfort zone . . . no matter where the location and how physically risky or active the mode of learning may be’” (citing Prouty, Panicucci, and Collinson 2007: 4). Such learning offers, among many other things, “multiple forms of authenticity,” the opportunity for participants “to be highly intentional about how they approach the negotiation aspects of the activity,” and “an opportunity

for students to collaborate in a meaningful way and build relationships" (Manwaring, McAdoo, and Cheldelin 2010: 139).

To this list, I would add one more major benefit: the potential that "real life" will surface complexity far better than any planned or scripted simulation. Indeed, some negotiation activities conducted by students in the "real world" may even move beyond the boundaries of the emergent scenario approach endorsed by Jayne Docherty above. Just by way of a quick example, in the 2011 and 2012 iterations of Hamline's Practice, Professionalism, and Problem-Solving course, a required first year class (see generally McAdoo, Press, and Griffin 2012), we asked students to form groups of three to four people and go off campus to participate in an external negotiation of their choosing. Most of my own students in the fall of 2011 took on relatively straightforward transactional assignments (e.g., negotiating purchases at a pawn shop; procuring discounts for class members at a local coffeehouse; reserving the best table and happy hour extras at the corner bar, including in one case getting agreement from the DJ to allow them all to dance the Macarena – no doubt inspired by my prior mention of Roy Lewicki's delightful assignment to "go out and collect "no's"). The post-exercise graded journals and classroom discussion were entertaining and occasionally enlightening, touching on a wide variety of emotional and cognitive reactions to the experiences.

But one group in particular stood out. They chose to engage in a neighborhood land use issue – the desire of a small group of community members to build a dog park. What the students initially thought was a "routine" planning matter quickly emerged as a far more complex and long-festering conflict about neighborhood gentrification and class and race dynamics. In the students' words, "they got much more than they bargained for." Of course, the real learning was mine: I had not given them a vocabulary to describe what they were experiencing, not to mention my failure to provide any concrete tools to actually engage constructively in helping to frame and work on the community's challenges. Hopefully, the students participating in the next iteration of my two-credit negotiation course will fare slightly better, having benefited from my four "small moves."

## Conclusion

We began this chapter by posing two questions: Should we even try to teach about "wicked problems" in planning school, business school, or law school negotiation courses? Can we hope to do so with any effectiveness? Our answers: Yes and yes. But much work remains to be done.

Over twenty-five years ago, the National Institute for Dispute Resolution underwrote the development of complex negotiation

scenarios for use in business and law schools; several of those scenarios are still viable today. Several years following that, the Hewlett Foundation undertook a massive initiative of funding dispute resolution centers on university campuses, and several of those centers (Harvard and Northwestern, in particular) developed the rich portfolio of simulation materials that dominate today's training market.

To make real progress in teaching "wickedness" to students, it would seem to us that it is time for a "third wave" of pedagogical development, staffed by interdisciplinary teams, that would stimulate new classroom experiments in teaching and the concomitant theory development necessary to move us forward.

## Notes

<sup>1</sup> It is worth noting, in light of other writing in this volume concerning the "truncated" nature of typical executive teaching, that this is actually less class time than the common 40-hour training course is able to provide. That implies that any assumption by regular faculty of the superiority of their teaching environment warrants a closer look. (For more on a related theme, see the *Epilogue* to this volume.)

<sup>2</sup> While wickedness often is seen in complex situations, complex problems are not all wicked. A complex system is one "with numerous components and interconnections, interactions or interdependence that are difficult to describe, understand, predict, manage, design, and/or change" (Magee and de Weck 2004: 2). Complex systems exhibit several defining characteristics, including feedback, strongly interdependent variables, extreme sensitivity to initial conditions, fractal geometry, self-organized criticality, multiple metastable states, and a non-Gaussian distribution of outputs (Kastens et al. 2009; for detailed information on these characteristics, see the *Introduction to Complex Systems* page at <http://serc.carleton.edu/NAGTWorkshops/complex-systems/introduction.html> [last accessed March 1, 2013]). Simple interactions between numerous agents give rise to complex situations and emergent behaviors; order intertwined with chaos. Still, not all of these systems contain the other *elements* of a wicked problem.

<sup>3</sup> An example is political impasse over almost any national policy decision in the past several years: politicians have become unable to negotiate over party lines as they impugn each other's motives and ways of thinking.

<sup>4</sup> In a related vein, see Crampton and Tsur, *Negotiation Stands Alone*, in this volume.

<sup>5</sup> A wicked problem "rests on a view of the world that claims there is no neat and clear distinction between so-called objective variables and our so-called understanding of them" (Docherty and Lira, *Adapting to the Adaptive*, in this volume).

<sup>6</sup> For more on this theme, see Avruch 2006.

<sup>7</sup> As summarized by Stefan Krieger and Richard Neumann in *Essential Lawyering Skills*, one of the most popular lawyering skills texts: "Regardless of whether the relationship is traditional or participatory, the law of agency, professional responsibility, malpractice, and constitutional criminal procedure provide that certain decisions are reserved to the client and may not be made by the lawyer. The law of agency matters because the client is a principal

whose agent is the lawyer. If the lawyer makes decisions reserved to the client, the lawyer can be disciplined under the rules of professional responsibility, or held liable in malpractice, or both" (2011: 25). See, however, Korobkin and Guthrie 2006.

<sup>8</sup> Three decades later it is hard to remember that this actually needed to be expressly said.

<sup>9</sup> "Contrast the client-centered conception of problems with a more traditional view. Under the traditional conception, lawyers view client problems primarily in terms of existing doctrinal categories such as contracts, torts, or securities. Information is important principally to the extent the data affects the doctrinal pigeonhole into which the lawyer places the problem. Moreover, in the traditional view, lawyers primarily seek the best 'legal' solutions to problems without fully exploring how those solutions meet clients' nonlegal as well as legal concerns" (Binder, Bergman, and Price 1991: 17).

<sup>10</sup> I use Russell Korobkin's *Negotiation Theory and Strategy*, 2nd edition (2009).

<sup>11</sup> "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?**

See Gadlin, Matz, and Christie, *Playing the Percentages*, in this volume.

## References

- Alexander, N. and M. LeBaron. 2009. Death of role-play. In *Rethinking negotiation teaching: Innovations for context and culture*, edited by C. Honeyman, J. Coben, and G. De Palo. St. Paul, MN: DRI Press.
- Avruch, K. 2006. The poverty of buyer and seller. 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.
- Azar, E. 1990. *The management of protracted social conflict: Theory and cases*. Aldershot, UK: Dartmouth Pub. Co.
- Bazerman, M. and M. Watkins. 2004. *Predictable surprises: The disasters you should have seen coming, and how to prevent them*. Cambridge, MA: Harvard Business School Press.
- Binder, D. A., P. Bergman, and S. C. Price. 1991. *Lawyers as counselors: A client-centered approach*. St. Paul, MN: West.
- Brest, P. 1995. The responsibility of law schools: Educating lawyers as counselors and problem solvers. *Law and Contemporary Problems* 58: 5-17.
- Christie, C., J. S. Docherty, L. Lira, J. Mahuad, H. Gadlin, and C. Honeyman. 2010. Negotiating wicked problems: Five stories. In *Venturing beyond the classroom: Volume 2 in the rethinking negotiation teaching series*, edited by C. Honeyman, J. Coben, and G. De Palo. St. Paul, MN: DRI Press.
- De Carlo, L. 2005. Accepting conflict and experiencing creativity: Teaching "concentration" using *La Francilienne* CD-ROM. *Negotiation Journal* 21(1): 85-103.
- Docherty, J. S. 2010. "Adaptive" negotiation: Practice and teaching. In *Venturing beyond the classroom: Volume 2 in the rethinking negotiation teaching series*, edited by C. Honeyman, J. Coben, and G. De Palo. St. Paul, MN: DRI Press.
- Dörner, D. 1989. *The logic of failure: Recognizing and avoiding error in complex situations*. New York: Metropolitan Books.
- Druckman, D. 2006. Uses of a marathon exercise. 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.

- Elliott, M., S. Kaufman, R. Gardner, and G. Burgess. 2002. Teaching conflict assessment and frame analysis through interactive web-based simulations. *International Journal of Conflict Management* 13(4): 320-340.
- Forester, J. 1985. *Critical theory, public policy, and planning practice*. Cambridge, MA: MIT Press.
- Hardin, G. 1968. The tragedy of the commons. *Science* 63(3859): 1243-1248.
- Kastens, K. A., C. A. Manduca, C. Cervato, R. Frodeman, C. Goodwin, L. S. Liben, D. W. Mogk, T. C. Spangler, N. A. Stillings, and S. Titus. 2009. How geoscientists think and learn. *Eos* 90(31): 265-266.
- Kaufman, S., C. Honeyman, and A. K. Schneider. 2007. Why don't they listen to us? The marginalization of negotiation wisdom. In *Négociation et transformations du monde*, edited by C. Dupont. Paris: Editions Publibook.
- 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.
- Kochan, T. and A. Verma. 1983. Negotiations in organizations: Blending industrial relations and organizational behavior approaches. In *Negotiating in organizations*, edited by M. H. Bazerman and R. J. Lewicki. Beverly Hills, CA: Sage Publications.
- Korobkin, R. 2009. *Negotiation theory and strategy*, 2nd edn. New York: Aspen
- Korobkin, R. and Guthrie, C. 2006. Miswanting. 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.
- Krieger, S. H. and R. K. Neumann, Jr. 2011. *Essential lawyering skills: Interviewing, counseling, negotiation, and persuasive fact analysis*, 4th edn. New York: Aspen.
- Lande, J. 2012. Teaching students to negotiate like a lawyer. *Washington University Journal of Law and Policy* 39(1): 109-144.
- Magee, C. L. and O. L. de Weck. 2004. Complex system classification. *Fourteenth Annual International Symposium of the International Council On Systems Engineering (INCOSE)*. Available at <http://hdl.handle.net/1721.1/6753> (last accessed March 1, 2013).
- Manwaring, M., B. McAdoo, and S. Cheldelin. 2010. Orientation and disorientation: Two approaches to designing "authentic" negotiation learning activities. In *Venturing beyond the classroom: Volume 2 in the rethinking negotiation teaching series*, edited by C. Honeyman, J. Coben, and G. De Palo. St. Paul, MN: DRI Press.
- McAdoo, B., S. Press, and C. Griffin. 2012. It's time to get it right: Problem-solving in the first-year curriculum. *Washington University Journal of Law & Policy* 39: 39-108.
- Menkel-Meadow, C. 1984. Toward another view of negotiation: The structure of problem-solving. *UCLA Law Review* 31: 754-842.
- Menkel-Meadow, C. 1999. Taking problem-solving pedagogy seriously: A response to the Attorney General. *Journal of Legal Education*. 49: 14-21.
- Nolan-Haley, J. M. 2002. Lawyers, non-lawyers and mediation: Rethinking the professional monopoly from a problem-solving perspective. *Harvard Negotiation Law Review* 7: 235-299.

- Pfeffer, J. and R. Sutton. 2000. *The knowing-doing gap*. Boston, MA: Harvard Business School Press.
- Prouty, D., J. Panicucci, and R. Collinson. 2007. *Adventure education: Theory and applications*. Champaign, IL: Human Kinetics.
- Pruitt, D. 1981. *Negotiation behavior*. New York: Academic Press.
- Raiffa, H. 1982. *The art and science of negotiation*. Cambridge, MA: Belknap Press.
- Rittel, H. W. J. and M. M. Webber. 1973. Dilemmas in a general theory of planning. *Policy Sciences* 4: 155-169.
- Rubin, J. and B. Brown. 1975. *The social psychology of bargaining and negotiation*. New York: Academic Press.
- Ury, W. L. 2000. *The third side: Why we fight and how we can stop*. New York: Penguin.
- Walton, R. E. and R. B. McKersie. 1965. *A behavioral theory of labor negotiations: An analysis of a social interaction system*. New York: McGrawHill.
- Walton, R. E., R. B. McKersie, and J. Cutcher-Gershenfeld. 2000. *Strategic negotiations: A theory of change in labor management relations*. New York: Cornell University Press.
- Wisner, J. D., K. C. Tan, and G. K. Leong. 2011. *Principles of supply chain management: A balanced approach*. New York: Cengage.

