

—CHAPTER 1—

Why Good Intentions Are Not Enough



Consider the following headlines, which are all based on true stories:

HOMELESS SHELTERS PERPETUATE HOMELESSNESS

DRUG BUSTS INCREASE DRUG-RELATED CRIME

FOOD AID INCREASES STARVATION

“GET-TOUGH” PRISON SENTENCES FAIL TO REDUCE THE FEAR OF
VIOLENT CRIME

JOB TRAINING PROGRAMS INCREASE UNEMPLOYMENT

What is going on here? Why do seemingly well-intentioned policies produce the opposite of what they are supposed to accomplish?

If you look closely at these solutions and many other stories of failed social policies, they have similar characteristics. They:

- Address symptoms rather than underlying problems.
- Seem obvious and often succeed in the short run.
- Achieve short-term gains that are undermined by longer-term impacts.
- Produce negative consequences that are unintentional.
- Lead us to assume that we are not responsible for the problem's recurrence.

For example, get-tough prison sentences do not address the socioeconomic causes of most inner-city crime. Although the perpetrators go to prison and pose less of an immediate threat, 95 percent of them are eventually released back into society—hardened by their experience and ill prepared to reenter their communities productively. Nearly half of those released from prison are imprisoned again within the first three years for

committing a repeat offense.¹ Moreover, the current system further weakens the infrastructure of these communities because it incarcerates fathers and mothers who can no longer bring up their children—thereby creating more instability and increasing the likelihood of producing a new generation of people who commit crimes. The system also redirects valuable public funds away from the socioeconomic and criminal justice reforms that could reduce crime permanently. Finally, if a formerly incarcerated person commits another crime, he or she is sent back to prison without considering how get-tough policies might have contributed to the recidivism.

Lewis Thomas, the award-winning medical essayist, observed, “When you are confronted by any complex social system . . . with things about it that you’re dissatisfied with and anxious to fix, you cannot just step in and set about fixing with much hope of helping. This is one of the sore discouragements of our time.”² He went on to say, “If you want to fix something you are first obliged to understand . . . the whole system.”

Distinguishing Conventional from Systems Thinking

What does it mean to understand the whole system? First, it means appreciating a situation you want to change through a systemic instead of a conventional lens. If you think that a systems lens is too sophisticated and beyond most people’s reach, let me assure you that it is child’s play.

If you are a parent, remember when your children were young, and you picked up after them. Your children would let their clothes pile up on the floor and move on to something more interesting. Eventually, after numerous failed attempts to have them put their clothes in the laundry, you would give up and put them there yourself. When your children would come back, the clothes had disappeared—as if by magic. “That worked!” they concluded. Nonlinear cause and effect, time delay, success (from their point of view, not necessarily yours)—these are all signs of a highly competent systems thinker.

Conventional or linear thinking works for simple problems, such as when I cut my hand and put on a Band-Aid to help the cut heal. It is also the basis for how most of us were taught in school and still tend to think—divide the world into specific disciplines and problems into their components under the assumption that we can best address the whole by focusing on and optimizing the parts.

However, conventional thinking is not suited to address the complex, chronic social and environmental problems you want to solve. These problems require systems thinking, which differs from conventional thinking in several important ways, as [table 1.1](#) shows.

For example, if the problem is homelessness, then the solution is not simply providing shelter. Providing temporary shelter is insufficient since people tend to cycle through shelters, the street, emergency rooms, and jails. Moreover, it is too easy to conclude that when people remain homeless, they do not want their own place to live, when in fact many want the security that comes with permanent housing. In addition, funding shelters tends to undermine both the political will and financial resources required to end homelessness.

TABLE 1.1. CONVENTIONAL VERSUS SYSTEMS THINKING

Conventional Thinking	Systems Thinking
The connection between problems and their causes is obvious and easy to trace.	The relationship between problems and their causes is indirect and not obvious.
Others, either within or outside our organization, are to blame for our problems and must be the ones to change.	We unwittingly create our own problems and have significant control or influence in solving them through changing our behavior.
A policy designed to achieve short-term success will also assure long-term success.	Most quick fixes have unintended consequences: They make no difference or make matters worse in the long run.
In order to optimize the whole, we must optimize the parts.	In order to optimize the whole, we must improve <i>relationships</i> among the parts.
Aggressively tackle many independent initiatives simultaneously.	Only a few key coordinated changes sustained over time will produce large systems change.

Source: Innovation Associates Organizational Learning

Ending homelessness requires a complex, long-term response involving affordable permanent housing, support services for the chronically homeless, and economic development. This means establishing new relationships among the various providers who prevent homelessness, those who help people cope with being homeless, and those who develop the permanent housing with support services and jobs

that enable people to end homelessness. Aligning providers along this continuum of care toward a goal of affordable permanent housing with support services increases everyone's ability to solve the problem.

The principle that solutions that work in the short run often have negative long-term effects, a phenomenon known as better-before-worse behavior, has significant implications for funders and policy makers. It raises what foundations call the philanthropic challenge—the task of determining how to fix a problem now versus help people over time. It also challenges public policy makers and business leaders to educate their constituents (such as private citizens and financial investors) about the risks of alleviating short-term pressures and fears without understanding the potential negative consequences of expedient solutions. In a world that promotes instant gratification, it can be difficult to remind people that “there is no such thing as a free lunch.”

This contrasting principle is known in systems terms as worse-before-better behavior. This means that long-term success often requires short-term investment or sacrifice. If you want to motivate people to work toward long-term success, then you as a leader must act in accordance with your own highest, long-term aspirations. The principle challenges leaders to:

- Resist quick fixes that actually undermine long-term effectiveness.
- Set realistic expectations with the people they serve.
- Target short-term successes that deliberately support long-term results and provide people with true hope instead of false promises.

Refining the Definition of Systems Thinking

Another useful distinction to introduce here is the difference between a system and systems thinking. The award-winning systems thinker Donella Meadows defined a system as “an interconnected set of elements that is coherently organized in a way that achieves *something* [*italics mine*].”³ Meadows's definition points to the fact that systems achieve a purpose—which is why they are stable and so difficult to change. However, this purpose is often not the one we *want* the system to achieve.

Building on her definition, I define systems thinking as the ability to understand these interconnections in such a way as to achieve a *desired* purpose. One of the benefits of systems thinking is that it helps people understand the purpose that a system is accomplishing. This prompts

them to reflect on the difference between what they say they want (their espoused purpose) and what they are actually producing (their current purpose). Reconciling the difference between these two is the subject of chapter 9.

As a reader you may have come across different schools of systems thinking, such as general systems theory,⁴ complexity theory, system dynamics, human system dynamics, and living systems theory. It is helpful to recognize that, while all these schools tend to agree on most of the systems principles described in [table 1.1](#), they differ in the methodologies used to both analyze a system and identify ways to improve it.

This book is primarily based on the concept of causal feedback loops in systems, and uses the causal feedback loop diagramming tools first popularized in Peter Senge’s management classics *The Fifth Discipline* and *The Fifth Discipline Fieldbook*.⁵ These tools can be integrated with other kinds of systems analysis, such as system dynamics and soft systems methodology.

I emphasize the feedback tools for several reasons. As a co-founder with Charlie Kiefer, Peter Senge, and Robert Fritz of Innovation Associates, the consulting firm that pioneered many of the ideas referred to in Peter’s book, I have thirty-five years of experience in working with these tools. I have also seen how powerful they can be in achieving sustainable, breakthrough change in the nonprofit, public, and private sectors—as well as in communities that engage leaders from all three sectors. Moreover, the tools are broadly recognized (as evidenced by the popularity of the work that Peter and many others among our colleagues have done) and readily understood by a wide range of people.

By introducing systems thinking as “the Fifth Discipline” of creating a learning organization, Peter Senge embedded what might otherwise be a purely technical and cognitive set of tools into a broader context. This context embraces multiple dimensions:

- **Spiritual:** The ability to see and articulate what will benefit diverse people over time.
- **Emotional:** The ability to master our emotions in service of a higher purpose.
- **Physical:** The ability to bring people together and enable them to collaborate.

- **Mental:** The ability to recognize how our individual and collective thinking affects the results we want.

This last point illustrates another critical benefit of this methodology, which is its emphasis on responsibility and empowerment. Every day, we can look around and see unintended consequences arising from what seemed at one time to be best-laid plans. Undoubtedly, whoever cast those plans had the best of intentions. A judge incarcerating a parent after a parent might have thought he was protecting citizens, but may not have fully understood he was also exacerbating problems for the children left behind, and perpetuating criminal behavior over time. The director of a shelter might have thought that she was protecting homeless people from the elements, but may not have fully understood that shelters divert critical resources from the even more humane and sustainable solution of permanent supportive housing.

In other words, burdens are shifted, unexpected results surface, and a host of other systems issues arise from good intentions. For any complex problem to be solved, the individual players all need to recognize how they unwittingly contribute to it. Once they understand their own responsibility for a problem, they can begin by changing the part of the system over which they have the greatest control: themselves. As we'll see in the pages ahead, the greatest opportunities for lasting change arise when all the players reflect on and shift their own intentions, assumptions, and behavior.

Closing the Loop

- People's good intentions to improve social systems are often undermined when they apply conventional thinking to chronic, complex social problems.
- Systems thinking is different from conventional thinking in several important ways.
- A social system is always designed to achieve a purpose, although it might not be the purpose people say they want it to accomplish.
- The specific approach to analyzing a complex social system that is used in this book has many important benefits, and it can also be used to complement other analytic methods.

—CHAPTER 2—

Systems Thinking Inside: A Catalyst for Social Change



In the summer of 2011 a group of leaders representing the Iowa Department of Education (IDE) and the state’s regional Area Education Agencies (AEAs) met to improve how they worked together. The two organizations had historically been funded separately and operated independently even though both were responsible for the quality of K–12 education in the state. But new challenges had arisen: Budget constraints had amplified, and test scores had failed to keep pace with increases in the national average. Iowa’s kids needed a better, more integrated support structure, and this demanded that the two organizations partner more closely. Other states face similar challenges: rising educational expectations, tighter budgets, and tensions between a central organization that promotes standardized systems and districts that want to pursue innovations tailored to their immediate constituents.

Forging a partnership is not easy, as demonstrated by the many examples of failed mergers in all sectors. However, in the case of Iowa education, the new partnership Collaborating for Iowa’s Kids has been highly successful. Both organizations are now operating with a shared purpose, vision, and set of values; supporting a jointly developed theory of success; working toward common goals; meeting monthly along with local school districts; reviewing shared metrics; and achieving meaningful results. Since the program began four years ago, it has expanded to include 80–100 participants. An oversight group keeps strategies and initiatives connected and assures that new initiatives are truly collaborative. Work groups including IDE, AEA, and local school district members develop priority initiatives. The larger group operates as a learning community: reviewing data, addressing unintended

consequences of implementation actions, suggesting ways that implementation can be strengthened, and reviewing plans of work groups. An early literacy initiative has pilot districts throughout the state using comprehensive approaches that include professional development, protocols that serve as guides for students, school teams planning and monitoring implementation with AEA partners, assessment plans, coaches for K–3 teachers, and data collection and analysis.

What enabled this partnership to develop when so many others fall short of expectations? While there are many reasons, at least two relate to how the two groups were initially brought together. Early on, the leaders of both organizations began working with Kathleen Zurcher, an experienced consultant who continues to support the project, to define their shared aspiration—which is one anchor of a systems approach. Then the leaders applied systems thinking with me to deepen their understanding of why it might be difficult to collaborate despite their shared intentions to improve the lives of Iowa’s kids.

Enabling them to develop this insight was facilitated by the fact that many chronic, complex problems can be viewed through the lens of systems archetypes—patterns of behavior that are so common within organizations, they have predictable consequences and well-understood solutions. The archetype playing out for these Iowa groups was clear: Accidental Adversaries. While each group had been conceived as part of an overall system whose actions would benefit all, each group had come to focus on its individual responsibilities and success. In the process each made life harder for the other, limiting the success of both groups and the system as a whole. For instance, the IDE had introduced many new programs to achieve its goal of providing guidance and governance to the state education system. However, these programs had disrupted the AEAs’ abilities to manage their own resources, which led them in turn to either customize or disengage from the IDE initiatives, thereby making IDE’s work more difficult.

The story of Accidental Adversaries resonated with both parties. It motivated them to have new conversations about how they could work as a unified system to maximize the benefits of their partnership and avoid the unintentional problems they had created for each other. The parties agreed that the role of the IDE was to set direction and lead, and the role of the AEAs was to implement. As a result, IDE moved from blaming AEAs for operating independently to working with them to meet regional

needs within the statewide context, and AEAs worked to adjust their individual initiatives to fit within the statewide direction and plans. They also agreed that the local school districts (formally known as Local Education Agencies or LEAs) were integral and needed to be included in the systemwide alignment work. And finally, they committed to focusing their efforts and resources on selected priorities—beginning with the early literacy initiative.

Mark Draper, the director of special education for the Green Hills AEA, said of the initial systems analysis meeting. “This has been the most concrete and useful conversation I’ve had on the relationship between our two groups in the past 20 years.” Connie Maxson, who was the bureau chief of teaching and learning services for the Department of Education, said, “This has been the best conversation I’ve had on the relationship between our two groups in the seven years since I’ve been here.” Their understanding of the Accidental Adversaries dynamic helped build not only stronger relationships between the IDE and AEA system, but also over time between the AEA system and individual AEAs, the local school districts and the IDE, and the local school districts and individual AEAs.

How Systems Thinking Meets Four Challenges of Change

How does systems thinking help people achieve sustainable, breakthrough change? The Iowa education story—and many others—points to ways in which thinking systemically meets four common challenges of change.

First, systems thinking *motivates* people to change because they discover their role in exacerbating the problems they want to solve. For example, the IDE came to see that rolling out new programs to the AEAs without sufficiently taking their needs into account led the AEAs to customize or disengage from these programs, thereby creating inconsistent, low-quality solutions that made the IDE’s own work more difficult. On the other side, the AEAs recognized that customizing or disengaging from statewide programs led the IDE to initiate even more programs that stretched the AEA’s own resources.

Second, systems thinking *catalyzes collaboration* because people learn how they collectively create the unsatisfying results they experience. In the case of Iowa, both parties came to see that their

localized solutions undermined their own organization's effectiveness and children's abilities to learn. They recognized that they were in the same boat, one of their own making, and that only by working together could they design a more seaworthy craft. Based on these insights, they developed new principles and structures for partnering over time and applied systems thinking again to organize their efforts around a common theory of success.

Third, systems thinking *focuses* people to work on a few key coordinated changes over time to achieve systemwide impacts that are significant and sustainable. This approach contrasts with people's tendencies to try to do too much with too few resources and achieve less as a result. In Iowa, the organizations chose to target specific high-leverage educational outcomes beginning with early-childhood literacy because of its pivotal role in long-term student performance.

Fourth, systems thinking *stimulates continuous learning*, which is an essential characteristic of any meaningful change in complex systems. The inherent and ever-changing complexity of social problems forces people to accept that knowledge is never complete or static. Learning is a more powerful mind-set than knowing because it enables us to keep adapting in the face of new information and conditions.¹ In Iowa, the organizations put in place a process for assessing their progress and adjusting their joint strategies over time.

[Table 2.1](#) summarizes these four change challenges and illustrates how systems thinking differs from the more common approaches to bringing diverse stakeholders together in service of social change. While many typical approaches help people recognize their shared aspirations, they often fall short, failing to show people how they are responsible for current reality.

As Peter Senge observed in *The Fifth Discipline*, "The building of shared vision lacks a critical underpinning if practiced without systems thinking." He goes on to say, "The problem lies not in shared visions themselves, so long as they are developed carefully. The problem lies in our reactive orientation toward current reality. Vision becomes a living force only when people truly believe they can shape their future. The simple fact is that most managers do not *experience* that they are contributing to creating their current reality. So they don't see how they can contribute to changing that reality."² When people fail to see their responsibility for the present, they (1) tend to assume that their primary

work is to change others or the system—not themselves, and (2) promote solutions that optimize their part of the system based on a mistaken belief that the way to optimize the whole system is to optimize each of the parts. By contrast, a systems view encourages them to critically assess their own contributions first.

TABLE 2.1. MEETING THE CHALLENGES OF CHANGE THROUGH SYSTEMS THINKING

The Challenge	Benefits of a Systems Thinking Approach	Characteristics of a Conventional Approach
Motivation: Why should we change?	Show responsibility for current reality	Appeal to desire or fear
Collaboration: Why should we work together?	Demonstrate how people’s current ways of interacting undermine both their individual and their collective performance	Tell people they should
Focus: What should we do?	Use leverage to change the few things that change everything else	Tackle many issues independently and simultaneously; attack symptoms
Learning: Why bother?	Recognize that our actions matter, and that we need to learn from the consequences of our actions	Assume that others are at fault and must learn

When to Use Systems Thinking

Since 1991 Intel has used the motto “Intel Inside” to emphasize that its chips power computers around the world. Like those chips, systems thinking powers change within many other change management frameworks. Because it can be embedded in many different methodologies, including the one described in this book, I think of it as “Systems Thinking Inside.”

It is especially effective to incorporate systems thinking into a broader systems approach when:

- A problem is chronic and has defied people’s best intentions to solve it.
- Diverse stakeholders find it difficult to align their efforts despite shared intentions.

- They try to optimize their part of the system without understanding their impact on the whole.
- Stakeholders' short-term efforts might actually undermine their intentions to solve the problem.
- People are working on a large number of disparate initiatives at the same time.
- Promoting particular solutions (such as best practices) comes at the expense of engaging in continuous learning.

Systems thinking can also play a role in defusing unintentional conflict or opposition among stakeholders, as it did in the Collaborating for Iowa's Kids case. When conflicts run deeper and there is little willingness on the part of people to collaborate with each other based on either a common concern or shared aspiration, such as in the identity-based Israeli–Palestinian conflict, systems thinking can still help third parties better understand the underlying dynamics and identify possible interventions.³

The broader systems approach used in this book will be summarized in chapter 5 and detailed in chapters 6 through 10, but we will additionally consider other systems approaches people employ, such as the Collective Impact model, which can also benefit from building “Systems Thinking Inside.”

Systems Thinking for Collective Impact

One of the most acclaimed approaches for large-scale social change to appear in recent years has been Collective Impact, a broad cross-sector coordination process introduced by John Kania and Mark Kramer in their pioneering *Stanford Social Innovation Review* article by the same name.⁴ The approach brings nonprofits, businesses, government agencies, and the public together to tackle complex problems. By doing so, its originators argue, it counters a tendency for social change to focus on the isolated interventions of individual organizations. Kania and Kramer describe five conditions for collective success across diverse stakeholders: “a common agenda, shared measurement systems, mutually reinforcing activities, continuous communication, and backbone support organizations.”

The immense popularity of their model has also raised concerns about whether it can truly deliver on its promises. For example, Paul Schmitz, the CEO of Public Allies and author of *Everyone Leads: Building*

Leadership from the Community Up, identifies three important areas where Collective Impact may not realize its full potential:⁵

- Enabling leaders to overcome tendencies to tout their own successes, and to be less than honest about what is not working and why they need help from others at the table.
- Encouraging organizations accustomed to seeing an issue from their own point of view to think in a more integrated way about problems and long-term solutions.
- Engaging community members as active leaders and service providers.

Systems thinking can help facilitators of Collective Impact processes, as well as those using other large-scale change approaches, meet the first two of these challenges directly. [Table 2.2](#) summarizes the benefits of using systems thinking within the Collective Impact process.

TABLE 2.2. SYSTEMS THINKING FOR COLLECTIVE IMPACT

Collective Success Conditions	Benefits of Systems Thinking
Mutually Reinforcing Activities	<ul style="list-style-type: none"> • Develops trust and vulnerability through insights into unintended consequences • Builds understanding of collective <i>and</i> individual impact
Common Agenda	<ul style="list-style-type: none"> • Shared language for communicating interdependencies, delays, and unintended consequences • Shared understanding of root causes of problem and people's contributions to it • Shared aspiration that accounts for benefits of status quo • Shared systemic theory of change
Shared Measurement	<ul style="list-style-type: none"> • Values qualitative and quantitative data • Assesses progress differently over multiple time horizons • Looks for both intended and unintended impacts • Tracks performance with respect to explicit and systemic theories of change • Aligns goals and metrics with consciously chosen purpose
Continuous Communication	<ul style="list-style-type: none"> • Quality and consistency of communication improve with increased personal responsibility, deeper alignment around common agenda, and stronger ability to distinguish short-versus long-term impacts • Establishes need for continuous learning as basis for continuous communication

Let's walk through the collective success conditions the table mentions.

First, systems thinking supports *mutually reinforcing activities*. It builds trust by affirming that everyone is doing the best with what they know at the time. It also builds vulnerability by helping people recognize the negative unintended consequences of their well-intentioned actions on both others *and* themselves.

Understanding these consequences enables people to appreciate the extent of their interdependence while simultaneously making their individual accountability for the current situation more transparent. By surfacing the deeper nature of both their connectedness and individual

impacts, systems thinking increases the likelihood that people's actions will in fact be mutually supportive.

Second, systems thinking supports the development of a *common agenda* in four ways:

- It provides a shared language for communication. This language, which is described further in the next two chapters, enables people to better appreciate the ways in which they are connected in often non-obvious ways and how time delays and unintended consequences impact their performance.
- It generates a common understanding of why a problem persists despite people's best efforts to solve it. This insight contrasts with a natural tendency to simplify problems in terms of what others are not doing and solutions in terms of what you already do. When you uncover the root causes of a chronic, complex problem, you also establish a solid basis for identifying high-leverage, systemwide solutions.
- It raises the distinction between the desired purpose people espouse and the payoffs of the system as it is currently configured. Without understanding this distinction, stakeholders too easily rally around a shared aspiration while downplaying the strong incentives each of them has to perpetuate the status quo. When people acknowledge both the benefits of change as well as the case for doing business as usual, their vision is grounded in reality, which includes an acknowledgment of what is likely to make change personally difficult. In his "I Have a Dream" speech, Martin Luther King devoted approximately 70 percent of his time to painting a picture of the difficult reality and only 30 percent to describing the dream.
- It enables stakeholders to create a shared systemic theory of change—a road map of how they will integrate the critical success factors they have identified over time to bridge the gap between what they want and where they are. For example, the community leaders in a school district that served children from both wealthy and poor immigrant families wanted to realize a vision in which all children felt loved and successful. They agreed on more than fifteen critical success factors—including shared measures and the identification and endorsement of a backbone organization. They

also agreed on a way to integrate these factors into a coherent strategy to bridge the success gap. (For the specifics of their plan, see chapter 11.)

Third, systems thinking informs *shared measurement*. As Schmitz and others point out, it is easy to be seduced by short-term data and readily measured outcomes even though they might not be indicative of long-term gains. By contrast, systems thinking focuses on both qualitative and quantitative data, assesses progress differently over multiple time horizons, looks for both intended and unintended consequences, and tracks performance in relation to explicit and systemic theories of change. Selecting appropriate indicators also involves aligning goals and metrics with the consciously chosen (rather than de facto) system purpose. For example, ending homelessness calls for metrics that reduce the use of shelter beds over time in favor of permanent housing. By contrast, conventional metrics support using available funds to make more and more shelter beds available to help people cope with homelessness.

Fourth, systems thinking increases the quality and consistency of people's *continuous communication*, because people take responsibility for the impacts of their actions on themselves and others, are aligned around a common agenda as modified above, and understand how to interpret short-term results in a long-term context. In addition, systems thinking emphasizes the need for continuous learning as the basis for continuous communication.

Closing the Loop

- Systems thinking helps people meet four challenges of change: It increases their motivation to change, catalyzes collaboration, enables focus, and stimulates continuous learning.
- Use systems thinking for chronic, complex problems where diverse stakeholders find it difficult to align their efforts despite shared intentions.
- Systems thinking can be used within different change management models. For example, by helping people become more vulnerable and see the big picture, systems thinking supports four conditions for Collective Impact: developing mutually reinforcing activities, building a common agenda, determining shared measurement, and nurturing continuous communication.

—CHAPTER 3—

Telling Systems Stories



In November 2006, The After Prison Initiative (TAPI), a program of the US Justice Fund of the Open Society Institute (OSI), convened a three-day retreat in Albuquerque, New Mexico, to accelerate progress on ending mass incarceration and harsh punishment in the United States.¹ Aptly named *Where Are We Going?*, the retreat brought together one hundred progressive leaders—activists, academics, researchers, policy analysts, and lawyers—to clarify what else could be done to facilitate successful reentry of people after incarceration and redress the underlying economic, social, and political conditions and policies that contribute to making the US the world’s largest incarcerator among developed nations.

To give you an idea of the scope of the problem, the United States has 2.5 million people behind bars today—versus 200,000 in the 1970s—and approximately 650,000 return home each year. The meeting was grounded in a recognition of how the US criminal justice system—from the beginning and at an accelerated pace since the 1970s—is determined by race, and how society, in the words of Berkeley law professor Jonathan Simon, is increasingly “governed by crime.”² Most of the participants at the retreat were Soros Justice Fellows or OSI grantees who competed for OSI funding at the same time that they shared a commitment to criminal justice reform.

The challenge presented by this and many similar retreats was that the diverse stakeholders required to solve a chronic, complex problem often do not appreciate the many and often non-obvious ways in which their work is connected. Taking this challenge into account, the goals of the meeting were to:

- Develop a shared understanding of why US incarceration rates and rates at which people return to prison are so high.

- End over-incarceration; create new opportunities for and remove barriers to successful reentry of formerly incarcerated people.
- Strengthen working relationships and collaborations among the advocates.
- Deepen awareness of the interdependencies (both reinforcing and potentially conflicting) among their diverse efforts.
- Identify new ways to strengthen civil society institutions and promote civic and political inclusion.

Perhaps the most radical new tool introduced at the retreat was systems thinking. Working under a grant supported by OSI, the organizers of the retreat, Joe Laur and Sara Schley of Seed Systems, recognized that tackling the same problems with the same mind-set and strategies often produces the same, largely unsuccessful, results. They believed that systems thinking might help people in the field get “unstuck,” better understand their theory of change, and devise new strategies and ways of collaborating.

Joe and Sara asked me to introduce systems thinking and systems mapping to help participants create a shared story of why mass incarceration and high recidivism rates persisted, as well as to identify what more they could do to reduce these rates. This picture needed to include the contributions of all participants to the solution, an explanation of why their independent efforts fell short, and insights into what they could do more effectively given limited resources and an urgent need for change.

Storytelling for Social Change

Telling stories is a powerful way to make sense of our own experience and of the world around us. Stories shape our identity, communicate who we are and what is important to us, and move others to act. They are a primary way of distilling and coding information in memorable form. Leaders use them to inspire others. Peace builders recognize narrative as a key source of conflict (people interpret historical facts in very different and incompatible ways), and they work to help disputants both appreciate each other’s narratives and modify their own. Therapists use storytelling to help people heal from trauma by supporting them to shape a new and more constructive narrative based on past experience.

Likewise, people committed to social change often share a similar story of what they are trying to accomplish and the challenges they face.

Three key elements of this story are:

- The world, in the words of Martin Buber, “stands in need of us,” and we are called to contribute our gifts and resources to support those less fortunate than ourselves.
- We are not making the impact we want despite our best intentions.
- The major obstacles to our success are limited resources and the behavior of others in the system.

While the first two aspects of this story are helpful and move people to act in positive ways, the belief that the primary causes of problems are beyond their control holds people back from being as productive as they could be. By attributing shortfalls to limited resources and assuming that others need to be the ones to change, people tend to minimize the impacts of their own intentions, thinking, and actions on their effectiveness.³ Moreover, because many of the stakeholders compete for limited funds, in this case from The After Prison Initiative, they naturally promote their own successes, downplay their failures, and sometimes may be reluctant to collaborate.

In order to optimize the performance of the entire system, people need to shift from trying to optimize their part of the system to improving relationships among its constituent parts. In the case of US criminal justice, the broader system includes how crime is currently fought, the negative unintended consequences of this system structure, and reformers’ efforts to mitigate these consequences and redesign the structure. People need to:

- Understand how focusing on their part of the system—the grantees’ reform work in this example—not only supports but might also limit the effectiveness of the whole system.
- Appreciate the non-obvious as well as obvious ways in which they are connected to one another as reformers and to others in the system.
- Recognize the unintended impacts of their intentions, thinking, and actions on both others and themselves.
- Apply this increased self-awareness to shifting how they relate to others in the system.

Even if people’s contributions to an existing situation are not obvious, it is important, in the words of Jesse Jackson, that they tell themselves, “We might not be responsible for being down, but we are responsible for

getting up.” In other words, empowering themselves through greater self-awareness is the first step in changing their reality.

Systems thinking can help people tell a new and more productive story. It honors their individual efforts and surfaces the limitations of these efforts. It distinguishes the short- and long-term impacts of their actions. It aligns their diverse views and stories into a bigger picture where individual contributors can see their part in relation to the whole. Seeing the big picture and their role in it, people are more motivated and able to work together to redesign the whole.

Shaping a Systems Story

In order to tell a systems story, people need to make three shifts:

- From seeing just their part of the system to seeing more of the whole system—including why and how it currently operates as well as what is being done to change it.
- From hoping that others will change to seeing how they can first change themselves.
- From focusing on individual events (crises, fires) to understanding and redesigning the deeper system structures that give rise to these events.

SEEING THE BIG PICTURE

The ancient Sufi story of the blind men and the elephant illustrates the challenge of enabling diverse stakeholders to see the big picture (see [figure 3.1](#)). Each party touches a different part of the elephant and tends to assume that what they experience is *the* elephant instead of just one part of a more complex reality. Moreover, they tend to see reality in terms of what they are doing well, are rewarded for doing, and could do better if they had more resources. On the other hand, people either fail to appreciate or question the value of others' contributions. In addition, they often do not have the tools to see a more complex world and understand how their intentions, thinking, and actions interact with those of other stakeholders.

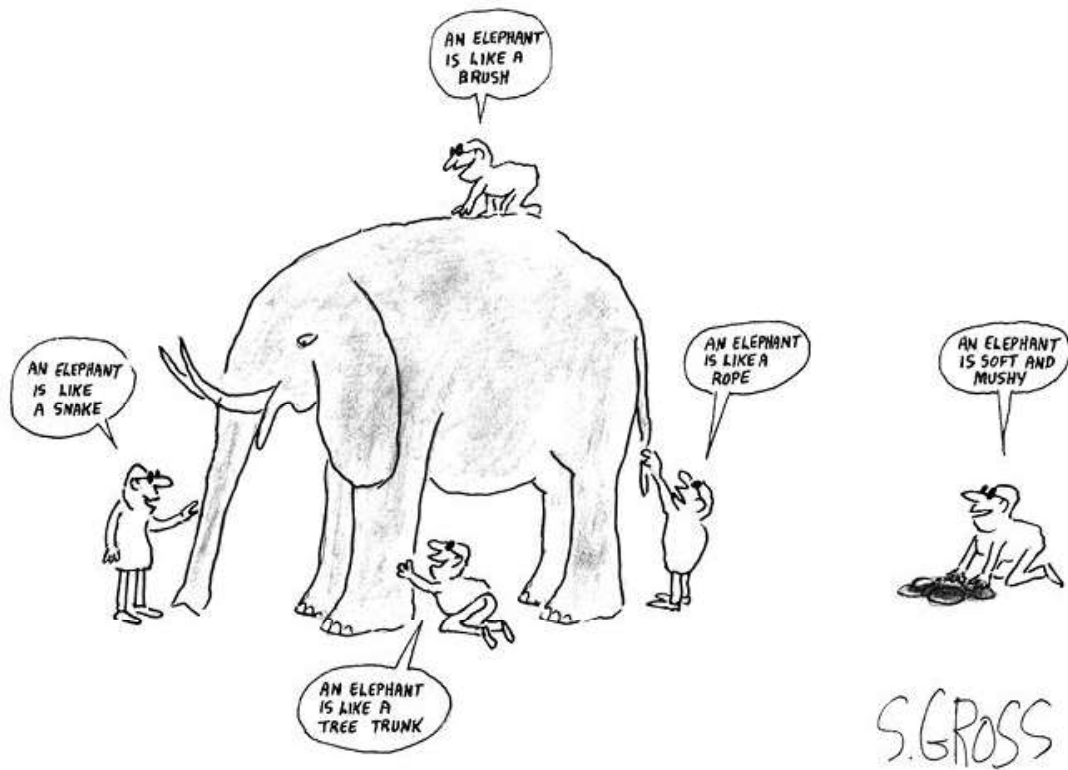


FIGURE 3.1 THE BLIND MEN AND THE ELEPHANT. Everyone sees part of a more complex reality and tends to assume that what they see is the whole picture. Sam Gross/The Cartoon Bank

In the TAPI case, participants naturally began by seeing solutions to the problem of over-incarceration and failed reentry through their respective specialties. Some focused on sentencing reform to reduce the length of sentences and time served, or the institutional work of resettlement and supportive services, or reorienting parole and probation policies. Others focused on challenging the prison lobby that benefits from current penal laws, or reducing the resistance of public officials to more effective and innovative approaches to reentry. Still others focused on convincing elected officials that tough-on-crime laws make for good politics but bad policy. They entered the group through their own silos. The challenge was to help them expand their perceptions by appreciating how their success depended on the success of all the other stakeholders (including those *not* present at the meeting), and then motivating them to collaborate more effectively with one another (again including those not in the room) to improve public safety in cost-effective and sustainable ways.

The first step was to create a strong and safe container for people to share their different perspectives. This is what I call convening people

systemically, and what Marvin Weisbord originally called “getting the whole system in the room.”⁴ In this case the system was represented in person by those committed to criminal justice reform, while the perspectives of tough-on-crime advocates were depicted on the systems map that included their policies, assumptions, and actions. The facilitators, Joe and Sara, built a container for the retreat participants by building diverse ways of communicating into the agenda, including: expert presentations, panels around specific issues, reports on innovations being tested by several participants, dialogues, a World Café (see more on this and other convening methodologies in chapter 5), and systems mapping.

They incorporated systems mapping because they recognized that convening people systemically is necessary but not always sufficient to mobilizing collaboration. This is true for several reasons:

- Even when people share common values and goals, as those in the TAPI meeting did, they tend to assume that the best way to optimize the system is to optimize their individual part. This assumption is often reinforced by metrics and rewards that encourage people to do what they are already doing.
- By contrast, participants might either fail to appreciate or actually blame (however covertly) others in the room for their inability to be even more effective.
- Some stakeholders are not included in such gatherings because they do not appear to share the same aspiration, are viewed as the source of the problem, and/or are more difficult to access by the conveners. In this case affirming a united front among the participants can mislead them into thinking that they are doing the best they can and others not in the room are to blame. While many TAPI participants were engaged in collaborative efforts with those not present at the meeting, it was important to reaffirm this strategy and avoid the risk of attributing breakdowns in the system solely to other stakeholders.

By contrast, one of the premises of systems thinking as described in chapter 1 is that the best way to optimize the system is to improve the relationships among its parts, not to optimize each part separately. This includes those present in a particular gathering and those who do not participate, those who support change and those who resist it. Helping

people who are convening systemically to also *think* systemically enables them to consider collaborating with all stakeholders as a first, though not necessarily the only, option. A systems map enables individual stakeholder groups to see how they contribute to the performance of the system as a whole, both positively and negatively.

For TAPI participants, one of the key insights from the systems map (which is detailed in chapter 7) was that the underlying concern of the public and its elected representatives had more to do with the fear of being victimized by crime and racism than actual crime levels themselves. Although crime levels have actually declined since 1991 by approximately 25 percent, people's fears of being victimized by violent crime continue to rise—as does the perception that crimes are more likely to be committed by people of color, which in turn causes race-associated fear to rise. Even though the criminal justice system consumes enormous tax dollars, public officials who promote mass incarceration often fan fear deliberately to win votes or do so unwittingly by resisting efforts to ameliorate this fear. For example, they resist innovative approaches to resettling formerly incarcerated people (approaches that could reduce recidivism) and fail to distinguish technical from substantive parole violations out of their own fear of appearing soft on crime. This insight led the TAPI participants to think of new ways of collaborating with one another as well as extending themselves to reduce the fears of well-intentioned public officials and concerned citizens who were not at the meeting.

INCREASING SELF-AWARENESS AND PERSONAL RESPONSIBILITY

The natural tendency to view one's own contributions favorably in relation to those of others is intensified by competition. People with a shared aspiration often compete for resources, which increases their reluctance to either acknowledge their own shortcomings or value the contributions of others.

By contrast, a systems story uncovers how people contribute, albeit unwittingly, to their own problems despite their best intentions. Raising self-awareness in this way actually increases their abilities to be more effective. Rather than depending on others to change in order to be successful, they discover that the greatest leverage they have in a system begins with changing themselves. They learn to recognize that

taking responsibility for their own intentions, thinking, and behavior gives them more power to create what they want.

Some TAPI participants became more motivated to initiate collaborations with others in the room when they understood the key ways in which they were interconnected. Several also recognized that framing criminal justice reform as a way to help elected officials generate votes by reducing prison costs and recidivism could benefit the reform movement.

UNDERSTANDING THE DEEPER SYSTEM STRUCTURE

One tool for developing an initial picture of “the elephant” (that is, any complex system) is known as the iceberg metaphor. The iceberg is a simple way of distinguishing problem symptoms from underlying or root causes. As shown in [figure 3.2](#), it distinguishes three levels of insight—each of which is informed by a specific question and prompts a certain type of action or response.

More specifically, the iceberg distinguishes the *events* level (what we see most easily) from the *pattern of behavior or trend* that links many events over time, and then goes deeper to expose the underlying *systems structure*—the hidden 90 percent of the iceberg that causes the most damage because it shapes the trends and events. Systems structure includes tangible elements such as the pressures, policies, and power dynamics that shape performance. It also includes intangible forces such as perceptions (what people believe or assume to be true about the system) and purpose (the actual versus espoused intentions that drive people’s behavior). The deeper people’s level of insight, the greater their opportunity to change the way the system behaves.

People often focus their attention and spend most of their time on responding to individual *events*. They want to know what is happening so that they can react quickly to the crisis at hand. For example, people who support (and oppose) criminal justice reform look at news reports on the latest crime statistics, the number of people recently returned to prison because of repeat offenses or technical parole violations, new legislation, and costs of the prison system. How people respond to a crisis can have an enormous impact on their effectiveness. Since 95 percent of people sent to prison are eventually released, and many of them are unprepared or unable to resettle productively, get-tough prison sentences often increase recidivism—further destabilizing communities and making them

less safe. Moreover, the costs incurred in maintaining the system divert funds that might otherwise be available to strengthen the disadvantaged communities from which a disproportionate number of residents are incarcerated.

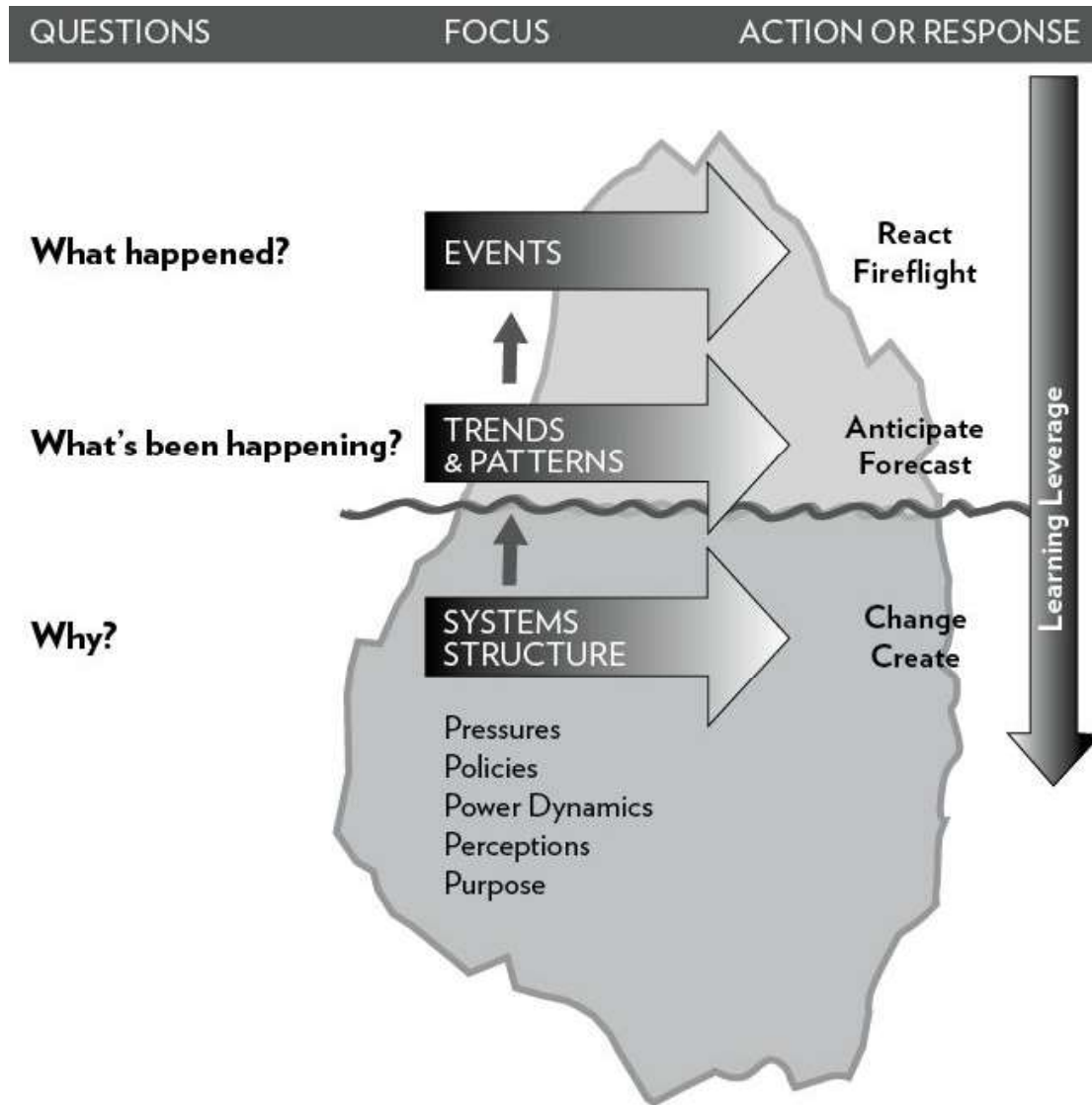


FIGURE 3.2 THE ICEBERG. The iceberg helps you to begin to distinguish a problem's symptoms from its root causes. Innovation Associates Organizational Learning

Sometimes people step back from individual events long enough to recognize ongoing *trends or patterns*. They ask what has been happening over time and try to anticipate the future based on the past. Trends can often be surprising and disturbing. For example, TAPI participants noted that incarceration levels continued to rise by an estimated 60 percent

since crime levels reached their peak in 1991, *despite* a reduction of 25 percent in crime during the same period (see [figure 3.3](#)). This led them to conclude that fear, as well as racism, drives current criminal justice policies more than the level of crime itself. Some criminologists believe that no more than 25 percent of crime reduction is attributable to incarceration.⁵ Others argue that the same trend data prove the beneficial impact of incarceration on reducing crime, which points to the importance of perceptions or mental models as another aspect of systems structure to be explored below.⁶

The root causes of a chronic, complex problem can be found in its underlying *systems structure*—the many circular, interdependent, and sometimes time-delayed relationships among its parts. The structure includes both easily observable elements—such as current pressures, policies, and power dynamics—and less obvious factors such as perceptions and purposes (goals or intentions) that influence how the more tangible elements affect behavior.

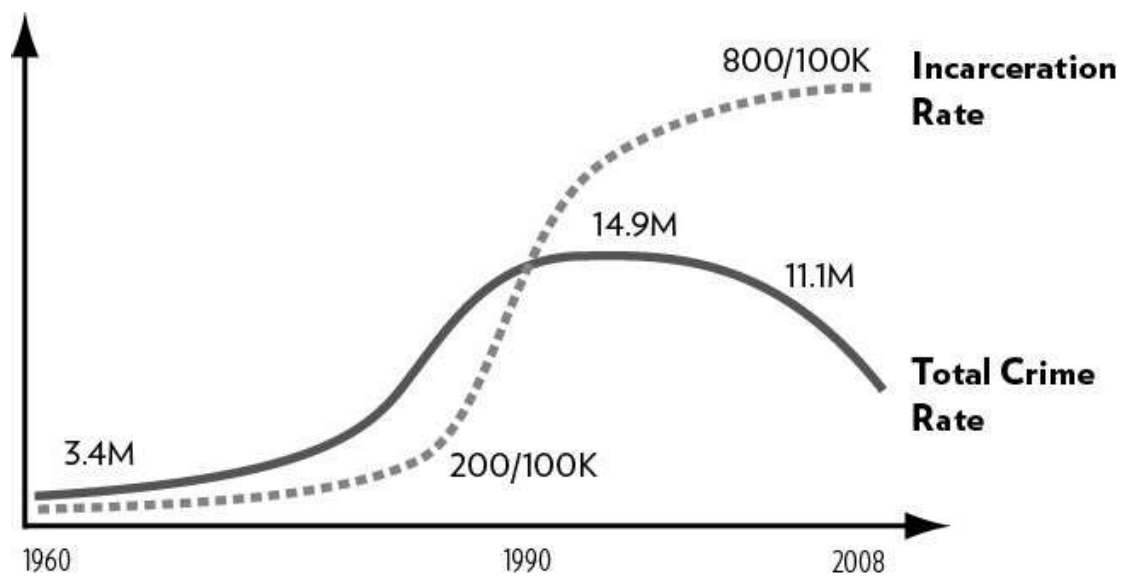


FIGURE 3.3 US CRIME VERSUS INCARCERATION RATES. The growing gap between an increasing incarceration rate and decreasing crime rate raises serious questions about the relationship between the two. Crime rate trend adapted from [DisasterCenter.com](#). Incarceration rate trend adapted from The Hamilton Project, Brookings Institution.

The Elements of Systems Structure

People communicate with one another through language and often through the stories they tell. Michael Goodman, one of the pioneers of the approach used in this book and a longtime colleague of mine, explains

that systems thinking can be thought of as a *language*—a visual language that helps us understand and talk about the world in a way that is different from our daily language. The metaphor of language is important because language shapes our perceptions, and hence our behavior. The root of the magical incantation *abracadabra* relates the powers of speech and action, as it comes from either the Aramaic “I will create as I speak” or the Hebrew “It came to pass as it was spoken.”² In either case, systems thinking is a language that more accurately explains complexity than our everyday language and thus enables us to work more effectively with social systems.

The most basic elements of this language are nouns, verbs, and adverbs (time delays). In addition, when we look more deeply into social systems, we discover that there are certain *plot lines* that appear across a wide variety of issues (whether in education, criminal justice, or homelessness) and at multiple levels of a system (for example, in homes, organizations, or communities).

The most basic plot lines are stories of amplification (called reinforcing feedback) and correction (called balancing feedback). These combine into more complex yet highly recognizable archetypal stories because they are so embedded in the human experience. Knowing the basic stories and systems archetypes gives us initial insights into many chronic, complex problems. Developing a richer and more comprehensive understanding often comes from modifying and combining archetypes—which is similar to illuminating the variations on plots and multiple interacting plots in a historical or fictional story.

Finally, we will look at the bottom of the iceberg to uncover what are described in complexity theory as *attractors*, the pulls that shape and stabilize a system’s behavior around a limited number of possible states. These deep structures are the beliefs or assumptions that people in social systems try to validate, and the underlying intentions or purposes they seek to realize. Depending on your assessment of the system’s current performance, they can be viewed as either positive or negative. Attractors are the underlying drivers of both system equilibrium and its resistance to change.

BASIC LANGUAGE OF SYSTEMS THINKING

Nouns

The nouns of systems thinking are variables, those forces or pressures at play in the system. Variables “vary” over time; they can increase, decrease, or oscillate. Variables can be qualitative or quantitative and are readily framed as “Levels of ____.” Common variables that Michael Goodman and I have identified include what people value (such as the level of expectation or goal), demands on the system (such as the level of need or pressure), resources to meet these demands (such as the level of investment or skills), and actual results (such as the level of performance or effectiveness). They also include perceptual factors that express how people feel and think (such as the level of fear or aversion to risk).

Since variables are the basis for systems stories, defining them is a key task.⁸ Significant insights can emerge from clarifying what they are—and what they are not. For example, a breakthrough insight for the TAPI participants was that the fear of being victimized by crime can drive behavior in the criminal justice system more than the level of crime itself. In a very different situation—the effort to rebuild civil society in Burundi after its 1990–94 civil war—NGOs that developed a systems analysis of the conflict determined that the driving factor in the war was not the resources of the Tutsis versus those of the Hutus, as they originally thought, but the power of the elite versus that of the majority. They determined this by recognizing that, when Hutus wrested power from the Tutsis, Hutu leaders became the new elite. In other words, Hutu leaders displayed the same tendency to accumulate resources at the expense of the majority of the population, just as Tutsi leaders had previously fought to retain their power. This insight led them to recognize the importance of another factor, ethnic manipulation, used by elites of both groups to gain and retain power at the expense of their constituents.⁹

Some of the other key variables in the TAPI case were: number of people released from prison, problems with resettlement, technical parole violations, sectors benefiting from the current system, cost of prisons, and (lack of) money available for resettlement. Other qualitative factors included fear for personal safety, political risks, and political resistance to innovation.

Verbs

The fundamental action described in systems thinking is that an increase in one variable causes an increase or decrease in one or more other variables. This action is described pictorially as follows:

$$A \rightarrow B$$

When a change in **A** causes a similar change in **B** (for instance, an increase in **A** causes an increase in **B**, or a decrease in **A** causes a decrease in **B**), we can put an **s** for “similar” at the end of the arrow.

$$A \rightarrow \mathbf{s}B$$

Alternatively, if a change in **A** causes an opposite change in **B** (an increase in **A** causes a decrease in **B** or vice versa), we can put an **o** for “opposite” at the end of the arrow.¹⁰

$$A \rightarrow \mathbf{o}B$$

While this nomenclature is helpful in building the story, we normally leave it out of the final pictures and instead explain the causal directions verbally on a systems map using descriptive words. This helps people unfamiliar with systems thinking to understand the diagrams.

Time Delay

How long it takes for a change in **A** to cause a change in **B** is a critical factor in systems thinking. This is because, as noted in chapter 1, the short- and long-term impacts of the same action are often reversed. In other words, short-term improvements can produce long-term consequences that neutralize or undermine more immediate gains. Conversely, we often need to invest time, money, and effort in the short run to achieve benefits that are sustainable over time. Time delays are depicted as follows:

$$A - | - | \rightarrow B$$

Michael Goodman and I have identified at least four types of delays in complex social systems. These are the times between:

- The change in a condition and our awareness that the condition has changed.
- Our awareness that the condition has changed and our decision to act.
- The decision to act and the act of implementation.
- Implementation and a corresponding change in the condition.

For example, a current and increasingly serious example is climate change. Although carbon dioxide levels in the atmosphere have

increased by more than 45 percent in the past two hundred years, it is only recently that most people have been made aware of the danger of these increases through turbulent weather patterns and rising sea levels. Moreover, because of our dependence on energy-intensive lifestyles and carbon fuels, it has been difficult to mobilize the political will to commit to new energy policies. Assuming we can now make hard decisions, it will still take many years to shift how we conserve energy and manufacture it from environmentally neutral sources. Once we implement these changes, it will take additional time to reduce carbon dioxide levels to necessary levels, though it may already be too late to reverse some changes such as rising sea levels from melting icebergs.

Going back to the TAPI example, there are at least four significant time delays related to the penal system and criminal justice reform:

- The time between when people go to prison and are released—that is, the length of sentences and time spent in prison. Because many sentences have become harsher, it can take many years before people reenter society. The 95 percent of prisoners who are eventually released often face serious barriers to reentry, created in part by the very length of their confinement.
- The delay between the public's fear of crime and their understanding that crime has in fact declined.
- A delay between the number of people incarcerated and concerns about the costs of the penal system. In the years since the TAPI retreat took place, these costs have become even more of a strain on public budgets, reaching an all-time high of eighty-five billion dollars a year, and motivating officials to seriously consider reforms to incarceration.
- The delay between recognizing the costly limitations of mass incarceration and actually shifting funds to the more promising investment of strengthening community institutions—such as education, health care, and employment—that create safer, more prosperous communities.

Because of the pressure to show immediate results—whether self-generated or created by such factors as public opinion, budget cycles, investor expectations, and voting cycles—it can be difficult for policy makers to respect and work with time delays. Leaders can respond more