

Thinking Preventively and Proactively

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1 Introduction

1.1 Quick-Fix Solutions, System Design, and Preventive/Proactive Thinking

Suppose that a large business enterprise is breaching too many of its contracts, resulting in significant and excessive legal liability for the company. The particulars of the contract provisions being breached may change from month to month, but what does not change is the fact of their ongoing, chronic liability. How might inexperienced lawyers respond to this problem? They may seek settlements of their breaches on favorable terms, or they may fight the potential liability by resisting a lawsuit or government investigation. They may even change their standard contracts so as to limit their liability in the event of future breaches.

Such responses are certainly rational. They are probably also reasonable: immediate measures are needed to deal with a problem that has become visible. But none of these “quick-fix” relatively superficial responses to the symptoms of the problem are preventive or genuinely proactive, not even the change in contract language to apply to future breaches. Acting preventively is taking steps to prevent a problem from occurring, not planning how to win the next time a problem arises.² Acting proactively is going yet further—beyond avoiding problems—toward good *initial* system design and periodic review and improvement of the processes of contract-making and contract-compliance within the company, thus adding to enterprise profitability or growth.

The problem with quick-fix solutions like those taken by the executives and corporate counsel is not that they are wrong or unnecessary. The problem is that quick-fix steps stop short of a deeper, longer-term approach to problems that would likely serve the company very well. By rushing to fix an immediate, apparent problem *and then being satisfied and doing nothing more*, company leaders are missing the opportunity to restructure whatever within their business structure is causing them to breach their contracts again and again. In other words, quick-fix solutions are usually rational and may be reasonable, but they are not fully responsible. Being fully responsible would require, first, that the initial systems for creating contracts and ensuring compliance are well-conceived with redundant features to ensure high functionality, and multiple feedback loops both to accentuate positive features and to alert the lawyer quickly about potential pathological features. Second, in the event of a problem actually arising, the problem must obviously be dealt with. However, additional preventive and proactive measures should then be taken: think preventively so as to identify the system causes of the breach and think proactively so as to improve the contracting process in either selling or procuring goods or services.

Ironically, the very reasonableness and rationality of taking immediate unreflective steps toward performing a task or fixing a problem steps may interfere with our engaging in this deeper preventive/proactive thinking. When we act rationally and reasonably in response to tasks and problems it *feels* like

² Frierson, James G., *Essay: Pre-Action Advice May Not Be Preventive Law Advice*, “Essays” page of “www.preventivelawyer.org”.

we are being responsible. Furthermore, we often are pressed for time. Taking *some* sort of quick action helps to quell our anxiety about the need or the problem. Responding quickly to the symptoms of a need or problem therefore provides a temporary respite from its troublesome or risky symptoms.

A behaviorist would explain that these temporary, superficial methods and quick-fix solutions are negatively reinforced by their power to alleviate the immediate distress that accompanies a task or problem, and thus make us feel better. But such feelings may deceive and ultimately betray us, because the quick approaches that these feelings prompt may well have deferred aversive consequences. Settling for nothing more than superficial efforts and solutions is like eating whenever we feel hungry. Frequent eating makes us feel better on an immediate basis, but in the long term we become less healthy.³ Unless we address the need to design a reliable, resilient system for performing a task, or unless we address the *antecedents* of a problem that may arise, we may be doomed to repeat the problem solving process again and again. Crude measures for accomplishing goals and quick-fix solutions for problems ultimately are unsatisfying: their ineffectiveness leads to frustration or despair.

Even worse, sometimes taking superficial, quick-fix steps actually will make problems come back more strongly or more frequently than if we had done nothing. This will happen whenever the superficial, quick-fix solutions that we apply to an immediate need ends up *feeding* the antecedents of the problem. A quick-fix solution, in other words, can be counter-productive: it can sometimes strengthen one or more elements of a recurring, pathological interaction. Unless one thinks expansively in uncovering the elements of this pathology and understanding how these elements interact to produce a visible problem, it is like stumbling through a darkened room, moving aside objects on the floor as we bump them. Moving aside any object is a quick fix toward moving toward the door and out of the room. *Without knowing what other objects may be tipped over by our actions*, moving aside obstacles in the dark is not fully responsible. Attempting to navigate a physical environment without crucial information about what lies ahead or how our interventions are changing the environment is dangerous. It is reactive to an immediate need. What is really needed is to end the risky interaction of person and environment. We need to find some light or other way to reveal the objects in the room, even if that means we should stop and wait for one's eyes to adjust to the darkness, or retreat, or call for help. Even better, we should then proactively improve the room by equipping it with an automated night-light so that in the future we may freely and without risk of injury walk into the room at any time.

1.2 Problematic Metaphors

We are drawn to superficial approaches to tasks and quick-fix solutions to problems for the emotional reasons suggested above, but also because of ignorance about the alternatives. And we are ignorant about the alternatives because in general our culture understands tasks and problems through metaphors that are too simple.

³ Skinner, B.F., *Beyond Freedom and Dignity*, Penguin, Middlesex, England 1971, pp. 6-43.

The metaphors commonly employed to understand or approach tasks or problems typically suggest a gap, or hole, or shortcoming. Accomplishing the task or fixing the problem, therefore, becomes merely a matter of supplying some resource to fill the hole or close the gap: the quick fix. Imagine, for example, that we were to use a pothole on an asphalt roadway as a metaphor of “problem.” As we watch cars attempting to steer around the hole or being damaged by hitting it, our immediate, quick-fix impulse is to find something that will fill up the hole. This seems both rational and reasonable. If the problem is a hole produced by the absence of asphalt, then the obvious solution is to find some asphalt and shovel it into the hole. Applying a needed resource makes the hole go away and we feel better.

As those who have lived in cold climates know, however, potholes repaired in this way are likely to come back deeper or wider. The reason for this is that the collapse of the roadway surface is actually the result of a long interaction among elements of a system comprised of drivers, their vehicles, the qualities of the structural materials comprising the road, additives to the road that are applied to melt ice, and the weather. So long as these human and non-human elements continue to interact as they have been, the stresses on the roadway will continue. Potholes will continue to appear. The problem arose because the initial road building was too crude. In its design it did not account for various elements that really appear in a road system, namely a climate that produces both water and cold, and the expansion coefficients of the materials used in building the road.

Indeed, merely shoveling more loose asphalt into the hole *may make things worse, like moving aside an unknown object in a darkened room.* Unless the repair material is properly compressed and sealed, even more water than before may seep into the road surface. As the water freezes and melts with winter weather, an even larger area of the roadway will be broken up and collapse under the weight of the traffic.

In sum, preventive/proactive thinking differs from superficial design and quick-fix solutions. This chapter will describe more fully what is meant by preventive and proactive thinking, stopping briefly to ponder why so little theoretical attention has been paid to it. Finally, the chapter details a step-by-step method to begin practicing this more expansive thinking.

2 The Elements of Preventive and Proactive Thinking

2.1 Finding Better Metaphors

The key difference between quick-fix and preventive thinking is that quick-fix thinking is concerned with meeting needs, whereas (1) preventive thinking focuses on the antecedents of needs and the processes by which needs emerge; and (2) proactive thinking assesses efficiency and the preconditions for effectively achieving positive goals. For quick-fix thinkers, problems tend to be imagined as needs themselves rather than as the processes by which needs are generated. Yet framing problems in a quick-fix way typically narrows the range of proposed solutions. A quick-fix thinker will attempt to supply new resources, thus eliminating the immediate need and therefore imagining that the problem

itself is eliminated. Alternatively, a quick-fix thinker may attempt somehow to make the needs less relevant, thus bypassing the problem or imagining that the problem has been lessened in importance.

The beguiling appeal of quick-fix methods, however, mask their ineffectiveness. If problems are needs—shortfalls in resources—then naturally the solution is to supply or transcend the needed resources, *and nothing else*. That is how quick-fix thinking can feel so responsible and rational, and yet sometimes be so futile or counterproductive. Quick-fix thinking follows logically from how problems are understood. Hence, if the underlying premise about the nature of the problem is wrong or limited, then the logically derived solution will be equally flawed.

Here are a series of examples: statements of chronic problems, and how a quick-fix mentality would process these problems. In each instance, the problem will be understood through an invisible metaphor that suggests a hole, or gap, or shortcoming that can be filled or resolved through the addition of some resource. And therefore, the problem understood through the metaphor *can also seemingly be solved by the simple addition of some single, needed resource*. The quick-fix approach is always superficial, however, because it never stops to consider *why the shortage arose*. The quick-fix approach is often ineffective because the antecedents of the shortage may still be in place. The quick-fix approach is sometimes even *counterproductive* because the resources that are supplied as an intended solution may actually feed the pathology by which the visible symptoms of the problem are produced.

For example, if poverty is understood merely as life necessities that are unavailable to a population (i.e. a shortcoming, hole, or emptiness), then the quick-fix solution calls simply for food stamps and subsidized housing. If an energy crisis is simply understood as a lack of sufficient supplies of power, then the solutions call for more drilling or more power plants. If a troubled intimate relationship is understand as simply a lack of good fit between the two partners, then each person should just find a new partner. If sexual harassment in the workplace is simply the lack of conformity to required norms, then that disobedience should be extinguished through punishment or possible discharge of the employee. If a child custody dispute is about the limited resource of time for interacting with the child, then the solution is inherently a division of the child's time between the parents. If health care simply addresses illness, then the health care delivery systems should devote its resources toward immediate, serious illnesses. All of the above solutions sound reasonable, *but only because each solution follows so logically from the narrow needs-based, pothole metaphor that frames each problem*.

Better metaphors are needed for understanding the idea of having a problem, metaphors that open one's imagination toward preventive and proactive thinking. Task management and problem solving would in the long run be more effective if needs and problems were more often understood dynamically, as the result of interaction among various elements comprising a system. Once the underlying complexity and dynamics of a problem are uncovered, then various interventions can be imagined that may break the cycle of interaction. If the cycle can be broken, then the problem will not recur. Furthermore, once the elements of a system are identified and their interactions are understood,

elements may be proactively redesigned to be affirmatively more effective toward meeting goals. The preventive or proactive interventions may have nothing to do with supplying a resource or responding to a symptom. Yet so long as the pothole metaphor prevails, those helpful interventions will remain invisible, simply beyond our imagination.

2.2 Seeing Needs and Problems as Systems

Understanding needs and problems dynamically requires seeing them as systems of interacting elements, both human and non-human. A more dynamic view of poverty, for example, would be as the futile interactions of the problem holder (a poor person) within a social environment that fails to value what the person has to offer, either because of relatively limited skills of the poor person or because of relatively limited ways for generating wealth within a given physical/economic environment. This chain of pathological interaction could be broken at any of several points. Preventively, environmental obstacles to the person being able to express existing skills (like child care requirements or transportation needs) could be removed; irrational social attitudes like racism or sexism that may prevent the social environment from recognizing or accepting existing skills of the problem holder could be eliminated through education or anti-discrimination laws. Proactively, the problem holder could be trained for new skills that could be more highly valued; or wealth-generation opportunities could be diversified and barriers to entry could be reduced through such measures as low-interest loans that enable the start-up of small scale enterprises.

2.3 Expanding the Problem Context to Identify Elements of a Problem Dynamic

Thinking preventively and proactively thus challenges us to conceptualize needs and problems as the result of social interactions conducted within a broader physical or economic environment that constrains or rewards certain behavioral patterns. Each of the other examples introduced above can be re-framed as expressions of such a pathological dynamic. Take the “energy crisis” that recurrently plagues Western economies: the problem can be understood as individuals embedded in a sprawling social environment that requires almost constant human transportation across significant distances—obviously a primary generator of energy needs—and surrounded by various cultural practices and large-scale distribution patterns that are energy intensive and dependent rather than energy-conserving. Furthermore, just as a physical/economic environment may offer insufficient diversity of opportunity to poor persons, so also does an energy problem emerge in part from the failure to develop the technologies that would make diversification of energy sources (solar, wind, wave, etc) efficient.

Sometimes, preventive and proactive re-framing of problems is especially difficult. For example, if a couple’s relationship is troubled, thinking preventively requires trying to understand how the pathological interactions between the two persons is being generated and reinforced by their social and non-social environment. Preventive/proactive thinking does not stop, in other

words, simply with an analysis of the two individuals' personalities or with their immediate reactions to one another.

Thinking more expansively first requires exploring the *social context* of the problem: What other persons are typically involved in the lives of the couple that may contribute to difficult interactions? Children? Employers? Parents-in-law? Neighbors? Can patterns be identified and prevented in which demands are seemingly made by such persons which outstrip the capabilities or coping skills of one or both individuals in the troubled relationship? Can proactive measures be taken to supply the persons with more skills, resilience, or flexibility in coping with these demands?

Thinking more broadly also requires looking at the *culture* in which people are embedded. Are the individuals in a troubled relationship burdened by heavy role-typing of expected behavior, like "the bread-winning husband" or "the subservient wife"-- social expectations that one or both persons cannot or do not wish to meet? Conversely, does the social culture offer diverse and helpful models for how people in an intimate relationship should act toward one another? Or does the culture instead offer up an exclusive diet of over-romanticized or sexualized images of love and commitment?

Thirdly, thinking preventively and proactively also requires expanding the problem context into the *non-social environment*: what are the typical sources of annoyance that may spark pathological interactions? Lack of money, noisy neighbors, insufficient time to devote to household tasks that create a more relaxing or ordered physical environment? Conversely, does the social or physical environment offer opportunities for resisting or transcending domestic annoyances? Are there opportunities for growth, optimism, inspiration, or a sense of accomplishment?

2.4 How Preventive/Proactive Thinking Leads to Better Solutions

2.4.1 Expanding the options for interventions

Expanding the understanding of a problem into the broader, more dynamic interactions that characterize preventive and proactive thinking may make good solutions seem far more elusive. How can one address at any practical level, for example, a culture that offers only narrow stereotypes of people's roles or interactions? How can any one person hope to diversify an economy or technological offerings? Yet one need not change all of the elements that comprise a pathological dynamic leading to the emergence of a need. *Because of the very complexity of the interactions, progress toward a solution or improvement can be made at any number of possible points of intervention.* One can address the immediate punishing behaviors of a couple toward one another; or attempt to remove some of the chronic sources of annoyance or disagreement; or help them seek out alternative models for how they regard themselves and their relationship; or help them build resilience in the face of future challenges.

Hence thinking expansively (*i.e.*, preventively/proactively) is not hopelessly idealistic or unrealistic. On the contrary, it expands the possible positive steps that can help solve the problem. Preventive and proactive steps are not mutually exclusive. That is, one sort of intervention that suggests a way to break the

pathological chain does not normally exclude an intervention that would make the system affirmatively better. Similarly, various steps can be taken simultaneously and the interventions can work at different speeds. Some interventions could have small, immediate effects. Other interventions could be a lifetime's work, but life altering. Further, expansive thinking does not preclude taking steps that may ameliorate an immediate need, although certainly one must be mindful not to add resources that feed the pathology and thus create future exaggerated needs. Understanding the elements of the pathology and their interaction will reduce the chances that adding immediately ameliorative resources will lead to the paradoxical long term consequences.

2.4.2 Investing others with finding a solution

Expansive thinking can also mean harnessing many minds toward a change. Rather than imagining that a problem or task is fixed by a one-time commitment of additional resources, preventive/proactive thinking could lead to creating a social *process* that will fuel itself toward a gradual elimination of the conditions that give rise to needs, and then perhaps proactive suggestions for affirmative improvement.

Consider, for example, sexual harassment in the workplace. If a complaint is imagined as a need to correct the behaviors of a single offender, then the logical solution is punishment of that individual or possible removal from the workplace. The offender's replacement, however, may be just as bad. Or that offender's co-workers may react negatively to the discharge of the offender, and react in passive-aggressive ways that are hidden but even more offensive than the original behavior.

By looking beyond individual offenders and instead looking for the elements of a broader system that is pathologically generating the sexually offensive behaviors, interventions may be imagined that are pitched at creating a gradual process for building better communication, more empathy and sensitivity, and perhaps even proactive incentives for positive rather than offensive behaviors. This is good system design that permits good features to operate freely, so as to strengthen the system over time.

Awareness of the particular offensive behaviors, for example, can be furthered by setting up an anonymous suggestion, complaint, or inquiry box. Where appropriate, company responses or advice can be posted on a board next to the box. Or a variety of employees of both sexes, different ages, and different ranks within the company or institution can be trained to receive complaints or inquiries by both victims and potential offenders about appropriate standards. Those with questions or complaints could seek out a person whom they respect or with whom they feel comfortable. Private victim/offender reconciliation sessions can be instituted so that perspectives and emotional impacts of particular incidents can be communicated. The goal would be to move a culture from one that may currently be offensive, intimidating, or disrespectful into one of supportive accountability in which people understand origins, impacts and unacceptability of harassment. Such a move requires a process involving a large proportion of the employees rather than a rule-and-punishment based system.

2.4.3 Uncovering interests

Preventive and proactive thinking can also help to identify underlying interests that may be neglected in quick-fix thinking. In child custody cases, for example, quick-fix thinking may imagine the problem simply as the division of the “resource” of time with the child between the contending parents. In contrast, expansive thinking would attempt to imagine the interactions between child and each parent, between the parents themselves, among various people in any expanded or blended family, and others with whom the child may have significant contact like playmates, schoolteachers, sports coaches, and even doctors, orthodontists, etc. Imagining these many different interactions—all elements in the social development of the child—helps shift the thinking about a child custody problem away from simply regarding the child as a resource to be allocated between two parents. Considering the child in that way may serve the immediate needs as perceived by the parents. However, it does not address many of the interests of the child in educational stability, friendships, extended family contacts, sports and play activity, and health care. The child is embedded in a larger system of contacts, some of which are rooted in or require particular sorts of physical environments. Attending to these elements both in isolation and as they may interact with one another will serve more of the child’s interests, promoting a fuller and healthier upbringing. Conversely, if these various interests are real but not taken into account in the child custody arrangement, then future problems with the child’s social development or among those people who care about the child are likely to increase.

2.4.4 Clarifying goals and methods

Finally, preventive and proactive thinking lead to better solutions than conventional quick-fix thinking, by stimulating richer, more imaginative reflection about the goals to be achieved in addressing a problem. For example, if one approaches public health care delivery (with its inevitable scarce resources) as simply a response to competing patient needs, then a logical solution is to triage among those needs, serving the most desperate but non-hopeless needs until resources run out. In other words, attention will focus on the most acute needs and the procedures that could serve those needs. At some point the needs are so severe that they will not respond to the procedures available, and so the procedures are futile. But short of that, even heroic efforts may be devoted to saving those who are close to death.⁴

This may be quick-fix thinking at its most dramatic. The many ethical issues surrounding health care delivery are beyond the scope of this chapter. Suffice it to say, however, that although applying heroic resource-based measures may feel courageous and life-affirming, if those sporadic episodes divert attention from the origins of disease and injury through the interactions between people and their social and physical environments, then much human suffering will not be prevented that might have been prevented through better nutrition and relatively easy public health measures. Thinking more fully about the origins of

⁴ See Calabresi, Guido and Bobbitt, Philip, *Tragic Choices*, W. W. Norton, New York 1978, pp. 18-23 for an overview regarding social responses to painful choices under conditions of scarcity.

health needs in these systems of interaction would open up methods for avoiding injury and disease, and proactive goals for enabling robustness.

3 Why has so Little Attention been Given to Describing and Training Preventive and Proactive Skills?

Given the advantages outlined above for thinking more expansively, why is it that so little attention to identifying and describing it? Principles for thinking preventively and proactively have not been well articulated, even though useful prevention methods and proactive goals have been suggested for a broad variety of discrete problems. Without general principles for this stronger thinking, however, the practical steps toward acting more preventively and proactively cannot be systematically developed and made an everyday part of legal practice, legislation, or everyday life. So what accounts for the historical neglect of this expansive thinking? Many possible answers may be offered.

3.1 The Relative Difficulty of Expansive Thinking

First, thinking expansively is more difficult than quick-fix thinking. It requires both a deeper investigation and a broader investigation. Not only must problems be situated in a context of elements that may be difficult to discern, but then the ways in which those elements interact with one another must be understood. Strong powers of imagination and access to particular information are required. Even when the elements and their pathological patterns are discovered, at least some of the interventions that suggest themselves for breaking those patterns may be very difficult or expensive. Broad cultural or environmental influences may undeniably contribute to the recurrence of a problem, but making effective changes to those influences may be virtually impossible for any individual or group. A more feasible strategy may be to isolate or insulate the problem holder against those cultural or environmental factors, but even that could be expensive or lead to unintended secondary consequences.

3.2 Not All Elements of the Task or Problem System May Be Under Central Control

Second, it may turn out that this broadened context uncovers disparate elements that are beyond the reach or control of any single advisor or decision maker. Where this occurs, difficulties of coordination and resource contribution arise among the various persons who would be required for effective affirmative or preventive action. Being preventive or proactive may require resolving issues of trust and free rider exploitation among problem solvers. In these instances, a process solution should be devised like that described for dealing with sexual harassment. Many people should be given the incentive and easy opportunity to contribute individually toward a general solution.

3.3 Prevention May Be Relatively Slow and Invisible

A third factor particularly inhibits preventive rather than proactive thinking. It is that prevention in itself supplies nothing visible or immediate, unlike the “quick fix” solutions appear to do. Especially where interventions target the more general cultural or environmental elements of a problem dynamic, breaking the links of the problem dynamic may take time. Further, even a relatively fast-acting intervention could be almost invisible. The successes of preventive thinking are often measured by the *absence* of something: anger, waste, litigation, crime, drug abuse, mental or physical health problems. Even where these effects have been successfully lessened by a preventive intervention, it may be hard for some people to credit that the intervention is actually responsible for these positive changes. The intervention may not leave visible causal tracings for its effects, leading some to imagine that the problem somehow has fixed itself or that some person or persons in the problem pathology had suddenly been enlightened. It may be difficult to convince these observers that the original problem dynamic may have strongly and persistently reinforced the pre-existing patterns, so that a spontaneous moral revelation or intellectual epiphany by anyone in the system was highly unlikely.

This phenomenon of people failing to credit preventive interventions because effective results are merely the absence of new symptoms can be especially challenging to practicing lawyers whose clients must pay for their efforts. If preventive action will not be valued by a skeptical client, then the attorney will have an incentive to employ quick-fix thinking with its possibly more dramatic or visible results. Preventive lawyers must realize this phenomenon and take constant steps to apprise the client of what the lawyer understands as the problem dynamic and the affirmative steps taken to break the chain of pathology. A stronger client understanding of the lawyer’s analysis and intervention strategy will help the client credit the preventive process for what it may have achieved, which is potentially high cost savings in the long run. Furthermore, the successful lawyer will not stop with prevention. Rather, the successful lawyer will consider proactive measures to identify and help achieve client goals.

3.4 Metaphors by Which We Understand Tasks and Problems

It may also be that the metaphors we commonly employ to understand tasks and problems do not promote expansive thinking. Metaphors are powerful tools by which we process and classify novel information that would otherwise be utterly confounding. Through metaphor we can draw a coherent picture in our minds of the data coming to our senses ,or of concepts that are otherwise too complex to process. Paradoxically, however, as soon as we are able to comprehend or cope with information through using a metaphor, that same metaphor has the potential either to capture and thus constrain our imagination, or even to corrupt our understanding concerning the task or problem.

Metaphor capture occurs when we become too heavily dependent on the metaphor, forgetting that it is merely a tool for understanding some phenomenon rather than the phenomenon itself. The danger is that the attributes of any single metaphor will suggest one particular logical solution. Any single solution may,

however, not be adequate. Further, unless the metaphor is especially dynamic the solution suggested may be purely resource-based, which we recall is the scourge of quick-fix thinking. Using “pothole” metaphorically to picture and understand the nature of tasks and problems is a good example of a metaphor that will often be too crude to reach a preventive or proactive solution.

Metaphor “corruption” can occur because the use of metaphor involves understanding a novel phenomenon through its patterned similarities with some object or concept we already understand. The metaphor helps us see and understand facets of a problem that we could otherwise have overlooked. But that same helpfulness can be counterproductive if we may fail to discern the limitations of the similarities between the metaphor and the phenomenon we are really addressing. If that happens we may self-deceivingly attribute properties of the metaphor to the real problem. By not knowing when to drop the metaphor, our understanding of the phenomenon is not just incomplete; it becomes inaccurate. Hence once again we may be drawn to a possible solution that feels both rational and reasonable, but is actually flawed owing to the over-use of a metaphor for understanding the problem.

A historical example of a metaphor which was over-applied to the real problem, resulting in a counterproductive solution, may be helpful. Prior to our scientific understanding of infectious agents, disease was sometimes understood through the idea of “bad blood,” which was akin to the spoiling of meat or lettuce. When food spoils, something that normally is good is inexplicably transformed into something bad. Regardless of the reason, however, when this transformation occurs the spoiled part acts as a polluting agent toward all that surrounded it. Spoiled meat or lettuce should therefore be cut away, removed from what remains healthy; otherwise everything will soon be bad. When disease was understood through this metaphor, the organism’s blood was likened to the role of the meat or lettuce. Under the metaphor, when the blood became inexplicably bad it also became dangerous, polluting the organism and resulting in the illness that was manifesting various symptoms. Extending the metaphor further suggested a treatment for the disease that was often disastrous: leeches were applied to patients in an effort to remove the bad blood. The metaphor of spoilage had been taken too literally and completely. It captured physician’s imaginations too strongly. Further, the metaphor actually corrupted understanding because physicians attributed too many features of the metaphor to the real problem. Drawing out the bad blood through leeching not only did nothing to cure the infection, but it actually weakened and ultimately killed many patients who otherwise would have survived their diseases through the normal operation of the human immune system. Acting through the metaphor, however, seemed both rational and reasonable to the physicians.

In using any metaphor, therefore, two points are recommended. First, do not be satisfied with only one. Constantly attempt to understand how the problem is being framed or processed. Then consciously change the metaphor, perhaps by seeking advice from someone else for an alternative. Working with multiple metaphors will put sufficient skeptical distance between any one metaphor and the mind of the problem solver.

Second, try to find metaphors that are dynamic and interactive. For example, now that we understand better the systems quality of infectious disease better, infectious disease actually can work well as a general metaphor for understanding problems, or at least far better than the metaphor of a pothole. Infectious diseases inherently involve the interaction of an infected patient or problem-holder with a physical world pathogen (a bacterium or virus, which may thrive only in particular environments), through a human or animal carrier which is part of the patient's social or physical environment. Further, physicians and nurses—those attempting to treat or quarantine the pathogen--also become part of the patient's social environment. By thinking of problems in general through this more complex metaphor, various possible points of interaction between individuals and their social and non-social environments are prompted. Further, the possible intervention points that could break the pathological dynamic may become more visible.

3.5 An Instrumental Mentality?

A possible final factor that may impede the development of preventive and proactive thinking is a general instrumental mentality with which Westerners, perhaps especially Americans, approach life. Within its formal legal institutions, issues of process in decision making are typically thoughtfully considered and carefully protected. Even so, its formal procedures converge relentlessly toward a judgment. Outside of the formal legal system, within the popular culture, process concerns are far more limited. “Bottom line” thinking often prevails. That is, the results of an inquiry or problem solving effort are typically the major focus, rather than questions of how such result may have been achieved. This prevailing pragmatism may be both efficient and appropriate in countries comprised of disparate religious and ethnic traditions. Ideological or highly value-laden orientations to tasks or problem solving processes could be inflammatory or excluding, and therefore are not officially established.

Preventive and proactive thinking resists an instrumental mentality that leads to pressures, either internally or politically generated, to act quickly toward a task or problem by adopting crude quick-fix measures. In that sense, expansive thinking may be stylistically or superficially counter-cultural. Yet preventive/proactive thinking does not advance an ideology apart from seeking to relieve people of unnecessary pain or expense. Indeed, preventive and proactive thinking is highly pragmatic. It may not always achieve quick or highly visible results, but it always seeks effective, efficient outcomes through imaginative system design or interventions that disrupt a problem dynamic. Although requiring patience and careful, imaginative investigation, the ultimate goal of more expansive thinking is human betterment, in real world terms.

4 A Step-by-step Method for Thinking Preventively and Proactively

In this section⁵ I distill the thoughts outlined above into a systematic method that can help promote preventive and proactive thinking. It is certainly not the exclusive way to proceed, but thinking about the suggested steps and the theory on which they are based may be a useful beginning toward the gradual development of more and better principles for preventing problem recurrence and achieving proactive improvements.

4.1 The Six Steps of Preventive and Proactive Thinking

The following section speaks to solving problems within existing systems rather than designing good systems from the beginning. Nonetheless hopefully some system design tips may be inferred from looking at preventive/proactive responses to pathology.

Dealing effectively with the antecedents and emergence of needs, rather than the needs themselves, requires taking the following steps:

1. Understand tasks and problems as networks of relationships between people and their environments (social, physical, biological, or financial).
2. Identify the various elements in the system that are leading to a particular problem:
 - a. This will always include a person or persons—the *problem holders*.
 - b. However, it will likely include a *social environment*--other people with whom the problem holders do, or do not, interact.
 - c. Finally, there will usually also be aspects of a *non-social environment*--issues about the physical world, or people's biological needs, or financial markets, etc.
3. Understand the chronic or typical *dynamics* among the problem holders and their social and non-social environments that create the problem.
4. Describe what gives each element of this problem dynamic its peculiar *importance*.
5. Imagine all the possible ways that the problem dynamic could be broken or slowed through conscious intervention. And finally:
6. Consider positive ways in which the existing elements of the system can be improved in performance or reliability, or ways in which new

⁵ The stepped method for thinking expansively is derived from my earlier work. See Barton, Thomas D., *Preventive Law: A Methodology for Preventing Problems*, at “www.abanet.org/dispute/laps/exercises.html”.

functions can be performed by adding new elements or interactions to the system.

4.2 Describing the Steps More Fully

4.2.1 Understand problems as troublesome relationships between people and their environments (social, physical, biological, or financial)

As I have written previously, “‘problems’ do not exist in a purely natural realm. Whatever turbulence or destruction or deprivation may occur in nature is simply part of natural processes, inappropriate for the label ‘problem.’ This is so because only humans can construct their environments in alternative ways, and only humans can respond to their environments by significantly changing them.”⁶ An event that is totally beyond human preventive efforts is best not labeled a “problem;” it is instead fate or the will of the deity. As an example of this general point:

A fire that burns in a wilderness will certainly alter the survival chances of the plants and creatures living within it, but without human intervention nothing can be done to change the odds. Nature will simply take its course. The fire and its implications are not strictly speaking ‘problems,’ because the very idea of a problem implies the capability of conscious adjustment to the physical, social, relational, or psychological environment in which the problem arises. By making problems exclusively human and by tying that human quality to the ability to manipulate the environment, an encompassing definition of problems suggests itself: *Problems are mismatches between environment and human purpose.*⁷

Hence in thinking expansively, always look for the connections between people and their surroundings. It is in those interactions that problems arise, and in those interactions that problems may be prevented. Paradoxically, it is often from experiencing problems and their resolutions that opportunities present themselves for proactively improving or expanding the system interactions.

4.2.2 Identify the various elements in the system that are leading to a particular problem

- a. This will always include a person or persons—the problem holders.
- b. However, it will likely include a social environment--other people with whom the problem holders do, or do not, interact.
- c. Finally, there will usually also be aspects of a non-social environment--issues about the physical world, or people’s biological needs, or financial markets, etc.

⁶ Barton, Thomas D., *Creative Problem Solving: Purpose, Meaning, and Values*, California Western Law Review 1998, p. 273.

⁷ Id.

This second step builds on the first. Understanding that problems are generated in the systemic interactions between people and their environments, try to find as many connections as possible. Systems are often more elaborate than first imagined, because the causal links are not necessarily mechanical. That is, problems often emerge from systems in which the various elements are influenced and buffered by many other elements. Problem dynamics typically represent risks –i.e., probabilities rather than certainties that the full-blown problem will arise. With luck, particular trigger points may be identified that virtually assure the visible emergence of problem symptoms out of the risks. If so, intervention strategies can usefully focus on the trigger points. Absent those triggering devices, however, as much information as possible should be uncovered about as many elements as possible.

Look, therefore, for links between human problem holders and the people with whom they interact—the social environment. Then look further for links with non-social environments—the physical or financial or regulatory worlds. A physical disability, for example, may emerge as a problem when the disabled person attempts to interact with the physical environment: steps that cannot be climbed, street crossing lights that cannot be seen. Alternatively, the problem may emerge as discrimination by the social environment toward the person who looks or acts differently. Thinking about all three dimensions—the particular human problem holder, the social environment, and the physical environment—opens up the possibilities for intervention points. The problem holder could be equipped with devices that serve as a functional substitute for some missing capability. The physical environment can be re-designed so that problems of inaccessibility never emerge: curbs can be designed for easy wheel-chair use, for example, and crossing lights can emit sound when street crossings are permitted. Alternatively, the social environment can be encouraged through both laws and sensitivity-enhancement measures to accept persons fully who suffer from some disability. The goal of all these interventions would be pragmatic—to rearrange the connections between disabled person, physical environment, and culture such that the disability becomes irrelevant. A final sort of possible intervention would be more psychological: to embolden the problem holder to venture further into activities previously thought impossible. Through setting an example, the courage of some can be preventive for others in the future.

4.2.3 Understand the chronic or typical dynamics among the problem holders and their social and non-social environments that create the problem

Once the various elements and connections of a pathological system are identified, the next two steps seek to understand *what keeps the system moving*. That is, what fuels the system to produce the visible problem on a recurrent basis? Not all problems are recurring, of course, or closely linked to similar problems that crop up as a result of the effort to resolve the first problem. As indicated at the chapter beginning, some problems are simple in structure, and will therefore succumb to quick-fix thinking. But for those problems that recur intact or in slightly different form, we must understand why it is that the antecedents to the system do not exhaust themselves.

Imagine, for example, tensions between some franchisors and their franchisees that in some instances may lead to the demise of the franchise. The franchisees have made substantial capital investments in obtaining the right to distribute goods or services of the franchisor. They do so because of the name recognition and method of distribution built up by the franchisor. Investment fees paid to the franchisor represent a return on the franchisor's initial entrepreneurial risk and marketing skill. Each new franchise added, however, has the potential to dilute the worth of all existing franchises. So also, even more dramatically, does all off-franchise marketing like direct online sales by the franchisor or distribution through grocery store chain or discount mega-stores. Even as overall sales expand, therefore, the franchisees may paradoxically realize less and less return until a tipping point is reached and the franchise system collapses of its own weight.

This pathological dynamic naturally involves franchisors and franchisees, but their relationship is also embedded within the larger context of the buying practices of the public and the financial imperatives experienced by most publicly-held companies. Fueling the system are the incentives built into each element. The franchisees indirectly depend on the general name recognition and product reputation that flow from widespread market presence and design uniformity, but each individual franchisee benefits far more from its particular exclusivity of distribution in a given geographic area. Franchisees clearly want that geographic exclusivity to be as broad as possible. The incentives for the franchisor are reversed: Once branding is established, profit margins are enhanced and shareholder demands are satisfied through direct franchisor marketing or through mass marketing in grocery store chains, mega-stores, or online. Franchisors are also pressured by the limited consumer willingness to seek out full inventory speciality shops rather than select limited inventory from a more convenient marketing channel. On the other hand, such direct sales may compromise the reputation for personal service among consumers that franchisees may supply, and also the general cachet that comes from exclusive distribution.

Understanding the system incentives and pressures for franchisors, franchisees, integrated or online merchandisers, and the buying public reveals the dangerous dynamic for franchises. It also suggests, however, various points of possible intervention that would enable the franchisees and non-franchise sellers not only to coexist, but possibly to benefit from one another. Selected merchandise could be kept available exclusively for franchisees; special public promotional efforts could direct consumers to franchisees; where fashion plays a part in the goods distributed, newer goods could be distributed first to franchisees; off-franchise merchandisers could be required to recommend or promote local franchisees for merchandise unavailable through the integrated sellers; or consumer buyers could earn credits from off-franchise sellers that are redeemable only at franchise outlets, with the credits reimbursed to the franchisees from the franchisor.

4.2.4 Describe what gives each element of this problem dynamic its peculiar importance

This step begins to approach the problem dynamic strategically. Given the elements of the system and the incentives or reinforcers that fuel its continuance,

where is the system most vulnerable? Why is each element reinforced by the actions of other elements? By identifying susceptibilities, interventions may be made more effective.

Let us return to the example with which the chapter began: that too many transactions of a large business enterprise (“LBE”) are creating legal problems. The fact of liability, in other words, is a recurrent problem. Thinking quick-fixedly, the answer would be to resist the liability by applying legal and other resources to the immediate need of a lawsuit or government investigation. Any particular problem of the LBE could conceivably be solved—even solved well—through such quick-fix measures. Indeed, on a short term basis such measures may be absolutely required.

In contrast, Step 1 of thinking expansively would result in the problem being articulated more generally, and with a longer time frame in mind. Problems should be understood as troublesome relationships between people and their environments. Here, the problem would be understood as “recurring legal liability” of LBE toward outsiders, who could be customers, competitors, or the government.

Step 2 requires identification of the various elements of the problem dynamic. Here, the problem holder can be imagined as the in-house corporate counsel for the company—the person most directly responsible for legal matters. The social environment for the problem is the non-legal employees of the company, including managers and top executives. The non-social environment would be the services or goods that are delivered to outsiders, and a set of various legal rules that are being sporadically but frequently breached, resulting in potential liability for LBE.

Step 3 would attempt to understand the dynamics among the problem elements—how do they interact and what keeps fueling a pathological pattern? Here, goods or services are being produced or distributed under conditions that create liability risks. For that to happen regularly, the service performers or manufacturing workers must chronically be acting in impermissible ways. The managers who would perhaps be expected to understand and correct those behaviors are not doing so. Top executives are not being effective at creating an environment for their managers that makes reducing risk from liability a priority. Corporate counsel is being called in too late on issues, at a quick-fix stage rather than a preventive stage.

The pathology may be fueled by: (a) ongoing ignorance by the actual service providers or manufacturing workers about the lack of quality of what they are delivering, or about how their product violates legal rules; (b) the managers may have incentives that are arranged to reward short-term successes like the revenues generated by shoddy goods and services, and a bureaucratic company structure that allows them to avoid accountability for the eventual consequences of worker errors or use of inferior materials; © the top executives may also be influenced by short term balance sheet demands of shareholders, compounded by accounting rules that make legal liability look like extraordinary events rather than the result of everyday practices within the company; and (d) corporate counsel may be acting in ways that discourage managers from contacting the

attorney earlier, during the planning stages of projects when preventive action could be taken more easily.

Step 4 would attempt to assess what gives each element in this pathology its particular importance, and determine which part of the pattern could be most susceptible to intervention. Various profiles could emerge in a multi-level pathology like this LBE suffering too much legal liability. Upon investigation, it could be that identifiable component suppliers to LBE are unreliable with their delivery schedules, or supply parts with a high failure rate. Time pressures within LBE, however, may force use of these components without appropriate testing and rejection. Or, it could be that LBE producers or service providers simply do not know the legal requirements or how to comply with them. Managers may be spending most of their time generating revenues or on recruiting workers, with insufficient attention to quality control. Or the managers may have insufficient experience with the actual production or service delivery to identify various quality assurance procedures that could be instituted. It could be that the top executives are too heavily recruited from the financial side rather than the production side, so that they, like their managers, are not sufficiently proactive in initiating production improvements. Finally, it could be that in meetings with managers or executives, corporate counsel too often has raised potential legal problems that have caused LBE to pull back from transactions that could have been career advancing for managers or financially rewarding for the top executives. Or, the corporate counsel could be viewed as carrying ideas from managers to top executives in such a way that managers are not sufficiently credited for their initiative or creativity. For these or other reasons, the decision-makers within LBE may have come to regard early advice from the corporate counsel as more threatening than beneficial to their individual interests.

Which of these possible elements of the problem dynamic could be most susceptible to intervention and change? Some require dealing with outsiders (the inferior component supplier). Others require dealing with many people on an ongoing basis, as where the workers do not understand how it is that what they produce violates legal rules. Some may suggest restructuring lines of authority and accountability, so that managers cannot externalize the consequences of their quality control omissions. Others suggest bringing in consultants for the top executives who lack experience to assess production inadequacies. Finally, some require people like the corporate counsel to change the ways they communicate and interact within the company. Any of these possible steps may be the most feasible single step for a given company: it is an empirical matter that should be carefully investigated. No intervention is necessarily mutually exclusive with any others. Indeed, a company-wide legal liability awareness and reduction campaign with initiatives taken at each level is most likely to have the fastest and most durable impact.

4.2.5 Imagine all the possible ways that the problem dynamic could be broken or slowed through conscious intervention

The careful and sometimes difficult investigation required by expansive thinking into multiple elements pays off in the end with a far broader repertoire of possible measures for amelioration and proactive improvement. It may be,

however, that none of these is a “solution” in the easy sense of eliminating the problem entirely. For complex problems, imagining that single effort measures will by themselves effect complete solutions is usually a fantasy of quick-fix thinking.

For a multi-causal problem like that probably faced by LBE, interventions could be initiated at any of the identified levels. Involving people with generating solutions at their own level not only tends to generate many more ideas, but also can smooth the implementation of any measure. Furthermore, by directly involving each human element of the problem dynamic in fashioning interventions, directly relevant expertise is brought into the process. No one knows his or her job better than those who actually do it. Being given a role in designing solutions may also shift attitudes away from denial of the problem to a far more productive engagement with its solution. Rearranging incentives at each stage toward the long term use of the interventions, rather than punishments for past behaviors, also helps to ensure durability of the new measures.

4.2.6 Consider positive ways in which the existing elements of the system can be improved in performance or reliability, or ways in which new functions can be performed by adding new elements or interactions to the system

Engaging in the analysis of steps 1 through 5 , which hopefully result in problem prevention, greatly facilitates taking step 6, which is to improve upon the original functioning of the system. Sometimes subtle improvements will emerge spontaneously simply from having taken these first five steps. In other words, by generating possible solutions well, taking appropriate measures to implement those solutions sensitively and durably, and setting up an ongoing process for monitoring of the success of the interventions, beneficial side effects may be achieved for the interacting elements that once were pathological.

Step 6, however, prompts further initiatives to be taken. Yet once the human and non-human elements of a system are identified and their interactions are understood, imagining a range of possible proactive improvements is far easier. First, understand precisely what the goals of the system currently are, and what further goals could possibly be accomplished. Then, working back from those goals, examine again the system elements and their interactions with an eye toward making them more efficient and effective. Are some interactions needlessly redundant? If so, make the system simpler and presumably cheaper by eliminating that waste. But keep in mind that some redundancies are cheap, and actually improve reliability. Conversely, are some interactions too “thin” and thus subject to inaccuracies or frequent delays? If so, consider requiring additional, redundant interactions—they will pay for themselves in reduced costs of error, delay, and damaged reputation. Are some interactions theoretically sufficient but chronically sporadic in performance? If so, establish or tighten the quality controls that should monitor those particular interactions, or for human resources set up better initial and refresher training courses.

Finally, consider establishing entirely new functions through introducing new elements or interactions. Ask, for example, whether some interactions or assets could be re-tooled to perform additional functions and become a new profit

source. Large accountancy firms learned this in the 1990's, offering their services as management consultants as well as auditors since the professional skills required for the two services overlap significantly. This same example suggests caution, however, to ensure that performing the new services does not impair the quality of performance of the original service. Impairment of the original function could occur directly (as where needed expertise or talent in the primary function is siphoned off to establish the secondary function) or indirectly (as where conflicts of interest arise between the original and new function that undermine or create disincentives for the full performance of both functions).

5 Conclusion

Preventive/proactive thinking has many advantages over quick-fix thinking. It can address the most complex problems, and help people better understand their effects on other people as well as on the physical or financial environment. It can produce more comprehensive and durable solutions that are often cheaper than the results of quick-fix thinking. It can generate ideas for making operations better or more complete than before the problem emerged. It does, however, require time, energy, and imagination. Sometimes, it also requires some convincing of clients and others who would prefer faster or more apparently visible results. By offering this set of six steps that can generally be taken toward more expansive thinking, hopefully the preventive/proactive process for engaging tasks and problems will be made easier, the processes will be more boldly undertaken by lawyers and others, and more attention will be devoted to developing the underlying principles of thinking preventively and proactively.

6 Resources for Learning more about Preventive Law

The National Center for Preventive Law ("NCPL") maintains a website at "www.preventivelawyer.org". The website contains many essays about Preventive Law in general, and as applied to particular areas of practice.

The founder of Preventive Law is Louis M. Brown, who authored various works on the topic. See, for example, Brown, Louis M., *Manual for Periodic Legal Checkup*, Butterworth, Seattle 1974; Brown, Louis M., *Legal Audit*, Southern California Law Review 1965, p. 431.

Mosten, Forrest S., *Managing and Preventing Disputes*, "Unbundling Legal Practice" page of "Aspects of Practice," of "www.preventivelawyer.org". This essay offers a practical introduction to preventive lawyering.

National Center for Preventive Law, CORPORATE COMPLIANCE PRINCIPLES, 1997, available without charge in hard copy from Thomas D. Barton, "Tbarton@CWSL.edu" or reprinted in its entirety at the "Corporate Compliance" page of "www.preventivelawyer.org". This work also contains a bibliography on corporate compliance standards and techniques.

Dauer, Edward A, *Integrating Preventive Law and Therapeutic Jurisprudence: A Law and Psychology Approach to Lawyering*, California Western Law Review 1997, p. 15.

Symposium, *Therapeutic Jurisprudence and Preventive Law: Transforming Legal Practice and Education*, Psychology, Public Policy, and Law 1999, pp. 795-1203.