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CHAPTER

1

Mismanaging the  
Unexpected

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*“A breakdown is not a negative situation to be avoided, but a situation of nonobviousness.”<sup>1</sup>*

—Terry Winograd and Fernando Flores

*“Danger, disquiet, anxiety attend the unknown—the first instinct is to eliminate those distressing states. First principle: any explanation is better than none. . . . The first idea which explains that the unknown is in fact the known does so much good that one ‘holds it for true.’”<sup>2</sup>*

—Friedrich Nietzsche

**N**onobvious breakdowns happen all the time. Some are a big deal. Most are not. But which are which? The answer to that question is hazy because we tend to settle for the “first explanation” that makes us feel in control. That explanation turns the

unknown into the known, which makes the explanation appear to be “true.” That can be a serious misjudgment. This book is about what we could call “the second explanation,” the one that—discomforting though it may be—treats the unknown *as knowable*. This second explanation is built from processes that produce an ongoing focus on failures, simplifications, operations, options, and expertise. Organizing that incorporates processes with these five areas of focus helps make breakdowns more knowable. These processes are an effortful means to maintain reliable performance, but previous work on high reliability organizations (HROs) shows that effortful processes like these make breakdowns more obvious at earlier stages in their development.

Our ideas come from an evolving body of work that originated with studies of safe operations on the flight decks of aircraft carriers, the generation and transmission of electrical power, and the dispatching of aircraft at an en route air traffic control center.<sup>3</sup> The common problem faced by all three was a million accidents waiting to happen *that didn't*. In each case the question was, How were the units organized to accomplish this outcome? Among the answers that have been proposed are the existence of a unique culture, capability for self-design, networks built on expertise, hybrid structures with special attention to redundancy, training and routines, situation awareness, mind-sets involved in sense-making, relational strategies, and information processing.<sup>4</sup> In an effort to synthesize a workable set of principles from this rich array, we focused on processes that were mixtures of variety and stability or, as the late Michael Cohen called them, “patterns in variety.”<sup>5</sup> One *pattern* that seemed to recur was a sustained focus on small failures, less abstract specifics, ongoing operations, alternative pathways to keep going, and the mobilization of expertise. The *variety* within this pattern came from local customizing that produced meaningful practices that did not compromise the adaptive capacity that the pattern generated.

Once that adaptive capacity weakens, reliability suffers. To illustrate how problems with reliability develop over time, in this chapter we analyze the collapse of the Washington Mutual Bank (WaMu). Although this example involves the financial industry, the problems and lessons apply to other industries as well.<sup>6</sup> This wider application occurs because all of us, just as was true for those at WaMu, have to act in situations we can't possibly understand.<sup>7</sup> And the reason we can't understand them is because all of us "have to apply limited conceptions to unlimited interdependencies."<sup>8</sup> The conceptions and the ways we apply them are what matter. If we change these conceptions, then we change our ability to function under conditions of nonobviousness. As we will see, WaMu underestimated its interdependencies and overestimated its conceptual grasp of those interdependencies it did see.

## Washington Mutual Mismanages the Unexpected

Washington Mutual Bank (WaMu) failed and was seized by the Federal Deposit Insurance Corporation (FDIC) on September 25, 2008, at 6 PM, and sold to JP Morgan Chase. We take a closer look at a sample of surprises in this unit that affected its reliability. And we describe one way to think about these fluctuations in reliability. Our interpretation is grounded in the idea that *managing* the unexpected is an ongoing effort to define and monitor weak signals<sup>9</sup> of potentially more serious threats and to take adaptive action as those signals begin to crystallize into more complex chains of unintended consequences. The phrase "begin to crystallize" is crucial to our argument because managing is an active process that is spread over time as the signals and situations change. As a problem begins to unfold, weak signals are hard to detect but easy to remedy. As time passes, this state of affairs tends to reverse. Signals become easy to detect but hard to remedy.

As weak signals change, so do the requirements for adaptive functioning. It is that adapting that became more and more flawed at WaMu.

### **Overview of Washington Mutual Bank Failure<sup>10</sup>**

During the 1980s WaMu, nearly 100 years old, was a retail savings and loan (S&L) bank that, under chief executive officer (CEO) Louis Pepper, had grown from 35 branches to 50 and from \$2 billion in assets to \$7 billion. The organization was held together by five values, all nouns: ethics, respect, teamwork, innovation, and excellence.<sup>11</sup> When Pepper was replaced in December 1988 by Kerry Killinger, the values were changed to three adjectives: fair, caring, and human.<sup>12</sup> Later, as the bank aggressively tried to become the largest at several lines of business (largest S&L, largest mortgage lender,<sup>13</sup> and largest home equity lender<sup>14</sup>) and focused increasingly on high-risk, subprime loans, two new adjectives replaced all other values: dynamic and driven.<sup>15</sup> These last two values were christened “The WaMu way.”<sup>16</sup>

In 1998 WaMu acquired Long Beach Mortgage (LB), a small subprime lender with \$328 million in assets. Subprime lending had become fashionable in the banking industry. WaMu had never made these kinds of loans although they appeared to be more profitable than conventional mortgages, albeit riskier. Subprime loans were more profitable because banks charged higher interest rates and higher fees, but they were riskier because borrowers couldn’t qualify for regular prime mortgages.

An early weak signal of unexpected events occurred in the summer of 2003. A sampling of 270 LB loans reviewed by the compliance department revealed that 40 percent were deemed “unacceptable because of a critical error.”<sup>17</sup> Underwriting standards had been loosened to sell more loans. An internal flyer had

said “a thin file is a good file,”<sup>18</sup> suggesting that less effort spent on documentation meant more time to sell more loans. For example, one loan application had a picture of a mariachi singer, and his income is “stated” as being in six figures. However, the picture was not a picture of the borrower, nor was that the borrower’s income.<sup>19</sup>

As the bank moved into a higher risk strategy for residential loans, the chief risk officer, James Vanasek, faced the unenviable position of being “in charge of balancing risk, at a bank that was loading up on it.”<sup>20</sup> Much later during a congressional hearing, Senator Tom Coburn asked Vanasek, “How do you account for the fact that somebody has seen a [housing] bubble, and by definition, a bubble is going to burst, and then their corporate strategy is to jump into the middle of the bubble?”<sup>21</sup> Vanasek had no answer then, nor did he have any success earlier when he tried to limit the number of “stated income” loans being made (loans with no proof of income). He resigned.

There was a continuing push to sell high-margin products, such as home equity loans and subprime loans. A new risk officer, Ron Cathcart, was hired as Vanasek’s replacement, and soon thereafter, Cathcart told CEO Killinger that the Federal Office of Thrift Supervision (OTS) was about to downgrade the bank’s “health” rating. Killinger said, “I don’t like to hear bad news.” Cathcart replied, “It’s my job to deliver bad news,” but Killinger was already out the door before Cathcart finished his sentence.<sup>22</sup>

During this period former CEO Pepper sent his protégé Killinger a blunt letter. The gist of it was that Killinger was not leading in the face of the bank’s continuing decline.<sup>23</sup> For example, as Pepper put it, Killinger still held on to the title chief operating officer (COO) but operations were a mess. Even though Pepper said that it was imperative that Killinger hire a COO, Killinger didn’t and kept the title.<sup>24</sup> Pepper was also deeply worried about Killinger’s optimism and his failure to discuss

worst-case scenarios. Pepper's worries were shared by insiders: "Don't listen to him, he's a Pollyanna."<sup>25</sup> As Pepper said in his letter, "There is no alternative but to give the worst case to the decision makers or later be in an untenable position of failing to make full disclosure. If you make full disclosure you may lose money but failure to do so has much worse penalties." No disclosure was made and much worse penalties did occur. As problems mounted the directors did next to nothing because they had little information about loans or borrowers. "When a borrower applied for a mortgage with limited documentation, no one kept track of which kind of documentation he or she had provided."<sup>26</sup>

In June 2006, in the face of an accelerating WaMu commitment to high-margin products, "something strange happened."<sup>27</sup> The median price of existing homes declined 1.7 percent year to year for the first time in 11 years, and home sales dropped a sudden 13 percent from the year before.<sup>28</sup> Other "strange" things happened. Borrowers started to miss mortgage payments but continued to make credit card payments (a reversal of normal priorities).<sup>29</sup> More loans were made with less documentation (insiders called them NINA loans: no income, no assets).<sup>30</sup> There were growing instances of first payment default (borrowers failed to make the first mortgage payment after the loan was granted).<sup>31</sup>

But why did all of this seem "strange"? What seemed to happen is that separate signals began to form a coherent, salient pattern. These patterns did not suddenly appear full-blown out of thin air. Instead, the clues had been emerging for some time.<sup>32</sup> But differences in employees' positions, as well as in their interests, power, competencies, incentives, and access to data, produced different levels of concern throughout the organization. Interpretations differed as well. We turn to five principles for managing the unexpected that were not followed at WaMu and could well have mitigated some of its problems.

## Problems in Mindful Organizing at WaMu

In this book we focus on five hallmarks of organizations that perform remarkably well day after day under trying conditions and persistently have fewer than their fair share of crises. These hallmarks make up what we have termed *mindful organizing*. In this section we preview each of the five principles individually, provide examples of their relevance to WaMu's growing problems, and comment briefly on issues that will be developed more fully in subsequent chapters. Our intention is to illustrate the kinds of cues that stand out when we pay closer attention to indications of failure, simplification, operations, resilience, and expertise (FSORE).<sup>33</sup>

**Preoccupation with Failure** The principle of a preoccupation with failure directs attention to ways in which your local activities can conceal or highlight such things as symptoms of system malfunction, small errors that could enlarge and spread, opportunities to speak up and be listened to, a gradual drift toward complacency, the need to pinpoint mistakes you don't want to make, and respect for your own day-to-day experience with surprises.

There were visible signs of failing at WaMu. For example, there were indications that guidelines for underwriting were being violated. Suspicions of fraud were investigated in Downey, California, where it was found that "red flags were overlooked, process requirements were waived, and exceptions to policy were granted."<sup>34</sup> People were working right up to an increasingly blurry edge that separated right from wrong. In sociologist Don Palmer's words,<sup>35</sup> wrongdoing had become normal although this was not always evident to the people who had been drawn in.

WaMu was aware of mistakes it didn't want to make (e.g., "We don't want their homes back"),<sup>36</sup> but it issued an underwhelming directive stating that employees "should be friendlier

when they tried to collect overdue payments.” All along there were signs that mistakes were being made that WaMu didn’t want to make. There were signs of the growing possibility that borrowers would owe more on their houses than those houses were worth (they would be underwater). Speculation on single-family homes was also going up in the form of non-owner-occupied loans. Such loans are risky because borrowers would dump the home at the first sign of trouble. True, the borrower would lose money, but as the saying goes, “Your first loss is the best loss when you are in danger.”<sup>37</sup> You minimize throwing good money after bad if you get out when the damage is small. Internally at WaMu, there was growing pressure to package and sell delinquency-prone loans to investors before the market detected that they had “soured.”<sup>38</sup> By June 2007 bad loans had jumped 45 percent. \$1.7 billion worth of loans were delinquent, and \$750 million more were involved in mortgages that were being foreclosed.<sup>39</sup>

Perhaps the WaMu group most likely to be preoccupied with failure, whether it wants to or not, is the office of investor relations. Staff in this office have to “say bad things in good ways.”<sup>40</sup> Investor anger funneled through their phones. As WaMu became more and more mismanaged, the anger voiced in calls to investor relations went up.<sup>41</sup> Mere frustrations, a weaker signal of trouble, gave way to rants, a much stronger signal of trouble. But the rants arrived too late to improve reliability.

**Reluctance to Simplify** Another way HROs manage the unexpected is by being reluctant to accept simplifications. It is certainly true that success in any coordinated activity requires that people simplify to stay focused on a handful of key issues and indicators. But it is also true that less simplification allows you to see in more detail what might be causing the unexpected. HROs take deliberate steps to create more complete and nuanced pictures of what they face and who they are as they face it.



A costly simplification at WaMu occurred when managers treated all borrowers as similar and failed to realize that subprime borrowers are different. For example, they need reminders before they make a payment.<sup>42</sup> Simplification also occurred in 2008 when CEO Killinger lumped banks into two categories, those that were “irrational mortgage lenders” (banks that do nothing but make mortgages) and those that weren’t “irrational.” Even though WaMu was a perfect example of the “irrational” category because of its escalating exposure to bad mortgage loans, Killinger believed that because WaMu was also in the retail banking business (albeit to a slight degree), it was not an irrational lender.<sup>43</sup>

WaMu’s claim that subprime lending was a key business line led it to lump together both qualified and less qualified borrowers. This simplification raised the probability that the bank would become a “predatory lender.”<sup>44</sup> Managers would now have more incentives to shift qualified buyers from a regular mortgage to a more profitable subprime loan. Whenever Killinger presented cautionary warnings to the board, he never used the word *bubble* to describe the housing market.<sup>45</sup> This is in contrast with chief risk officer Jim Vanasek, who wrote a memo to his underwriting and appraisal staff in 2004 that urged them to be much more conservative given the continuing rise in housing prices to unsustainable levels: “There have been so many warnings of a Housing Bubble that we all tend now to ignore them because thus far it has not happened.”<sup>46</sup>

WaMu also tended to lump together all of its subprime borrowers. This simplification concealed a dangerous set of details. Kevin Jenne, a market research manager, videotaped 80 hours of interviews with high-risk borrowers (e.g., people not paying back their loans).<sup>47</sup> What he saw over and over was that borrowers were confused and had no idea of how their option adjustable-rate mortgages (ARMs) worked (e.g., “Well, this small

monthly payment, that's how much we pay, right?").<sup>48</sup> In fact, those loans were negatively amortizing loans. If a borrower chose to make the lowest payment, option 4 ("minimum payment"), that amount would cover only part of the interest and none of the principal, and the remaining amount of unpaid interest would be added to the principal.<sup>49</sup> Risk managers viewed these loans as a liability, but accountants treated them as an asset.<sup>50</sup> Payments on an option ARM could jump from \$800 per month to \$3,000 per month.<sup>51</sup>

**Sensitivity to Operations** The big picture in HROs is just as operational as it is strategic. Anomalies are noticed while they are still tractable and can still be isolated and dealt with. Sensitivity to operations is about the work itself, about seeing what we are actually doing regardless of intentions, designs, and plans. Differences in sensitivity are evident, for example, in interpretations of close calls. Reliable performance tends to increase when close calls are interpreted as danger in the guise of safety and to decrease when close calls are deemed as safety in the guise of danger. Both interpretations are sensitive to what is currently happening but differ greatly in their grasp of operational risk and context. Operations are in jeopardy when their soundness is overestimated. When people see a near miss as success, this reinforces their beliefs that current operations are sufficient to forestall unintended consequences.

Top management's eagerness to acquire firms affected operations at WaMu. The CEO wanted WaMu to be "a category killer" (e.g., the Walmart of banking).<sup>52</sup> This might have been a plausible strategy except that WaMu neglected the firms that it acquired.<sup>53</sup> The highest priority was to make more loans, not to integrate systems. For example, files were erased to make room for new files, and the files themselves were not centralized in one place.<sup>54</sup> Mortgage payments were stored in boxes, unrecorded,

and people who paid regularly were treated as if they had defaulted on their loans.<sup>55</sup> Those who paid on time were charged an additional penalty. Hundreds of people complained that the bank not only lost their payments but also charged penalties for its mistakes. Bank personnel tended to minimize the errors, explaining that they reflected “nothing more than mistakes that will, from time to time, occur in the ordinary course of any enterprise.”<sup>56</sup>

Management was slow to merge the underwriting operations and the payment servicing systems of the acquired firms.<sup>57</sup> A closer look at the underwriting process showed numerous instances of reliance on stated income, incorrect signatures, documents with sections obscured by correction fluid, and loans for the full amount of the purchase price, all of which were made worse by inexperienced personnel and a relentless push for a greater volume of sales. In the final report of the Senate committee investigating the financial crisis, there is this summary statement: “The records reviewed by the subcommittee showed that from 2004 until its shuttering in 2008, WaMu constantly struggled with information technology issues that limited its ability to monitor loan errors, exception rates, and indicators of loan fraud.”<sup>58</sup>

Operations also suffered because of high turnover of bank personnel. This was especially true of employees whose job was to monitor risk or comply with federal regulations.<sup>59</sup> WaMu went through five credit officers in two years.<sup>60</sup> “In March 2007, an OTS<sup>61</sup> examiner noted that WaMu had just hired its ‘ninth compliance leader since 2000,’ and that its ‘compliance management program has suffered a lack of steady, consistent leadership.’”<sup>62</sup> This turnover is not surprising because each risk officer had two bosses, the chief risk officer and the head of the business unit to which he or she was assigned (the policy of double reporting).<sup>63</sup> Given the high priority on sales and growth in

each division, the person who oversees risk is in a less powerful position than is the person who oversees the business unit.<sup>64</sup>

**Commitment to Resilience** No system is perfect. HROs know this as well as anyone. This is why they complement their anticipatory activities of learning from failure, complicating their perceptions, and remaining sensitive to operations with a commitment to resilience. “The essence of resilience is therefore the intrinsic ability of an organization (system) to maintain or regain a dynamically stable state, which allows it to continue operations after a major mishap and/or in the presence of a continuous stress.”<sup>65</sup> HROs develop capabilities to detect, contain, and bounce back from those inevitable errors that are part of an indeterminate world. The hallmark of an HRO is not that it is error-free but that errors don’t disable it.

Again, part of the problem at WaMu involved personnel. As new people entered a newer culture devoted to sales and driven by the values of *dynamic* and *driven*, older personnel who were committed to different older values were dismissed as “legacy losers” and “Pepper’s misfits.”<sup>66</sup> This weakened a commitment to resilience because it reduced the variety of resources available to the firm. Old-timers have different experiences and competencies that are not so much out-of-date as they are diverse resources that may be able to cope with unexpected events.

A subtle trap in WaMu’s high-risk strategy can blind people to the ongoing need to develop resilience resources. That trap involves time lags. If subprime borrowers default on their loans, the default won’t occur right away, especially if low initial teaser rates attracted them. If borrowers presume erroneously that those rates will continue for the life of the loan, they aren’t prepared for a raise in those rates. Initially the strategy will look like it’s working. The bank will make money, especially if housing prices continue to rise. But if those trends reverse

direction, then a low capability for resilience undermines reliable performance.

Resilience also decreases when loans are issued with multiple layers of risk (risk layering). For example, a loan might be issued to a borrower whose income information was not verified *and* whose loan had a high loan-to-value ratio (often greater than 90 percent, sometimes with the remaining 10 percent loaned by means of a second lien) *and* a low initial interest rate to qualify the borrower in the first place.

Potential resilience, however, did exist. WaMu could originate fewer subprime loans, sell servicing rights, or use other means to off-load risk. Funds were set aside as loss reserves so that the bank could bounce back from unexpected events. But, these reserves were quickly exhausted when loans started to go bad and investors demanded that WaMu repurchase the loans that had defaulted (the securities usually contained a repurchase clause that continued for the life of the loan).<sup>67</sup> WaMu also could have cut the dividend, but with more cash on hand, it would have become a more attractive takeover target.

One of the durable findings in research on HROs is that they distinguish among three modes of operating: normal, up-tempo, and crisis. Resilient actions vary as a function of which operating mode is in effect, but there is seldom any question regarding which mode is currently active. One of the problems at WaMu was considerable variation among units in the urgency of their modes of operating. At higher organizational levels, the prevailing mode of operation was normal (e.g., despite the worsening signs in the subprime market, Killinger wanted to buy another subprime lender, Ameriquest, which would have loaded WaMu up with even more subprime loans).<sup>68</sup> In Killinger's words, "This, frankly, may be one of the best times to take on new loans in our portfolio."<sup>69</sup> Top management treated the situation as normal, but those lower in the hierarchy were far less certain that

conditions were normal: “Why isn’t he [Killinger] launching us into crisis mode?”<sup>70</sup> If middle management is dealing with a crisis but senior management doesn’t recognize this, then people in the middle are using up resilience resources to convert a crisis into something that appears normal. And they are doing so without support or recognition from their superiors. The application of Band-Aids is not a resilient process.

**Deference to Expertise** The final distinctive feature of HROs is their deference to expertise. HROs cultivate diversity, not just because it helps them notice more in complex environments, but also because it helps them adapt to the complexities they do spot. Rigid hierarchies have their own unique vulnerability to errors. Errors at higher levels tend to pick up and combine with errors at lower levels, thereby making the resulting problem bigger, harder to comprehend, and more prone to escalation. To prevent this deadly scenario, HROs push decision making down and around.<sup>71</sup> Decisions are made on the front line, and authority migrates to the people with the most expertise, regardless of their rank.

The increasing marginalization of risk officers at WaMu was an indication of reduced deference to expertise. WaMu had a risk mitigation team, but no one in senior management listened to them. In spring 2005, as WaMu moved deeper into a strategy of higher-risk residential loans, the chief risk officer, James Vanasek, sent a note to the executive committee that said in part, “My credit team and I fear that we are considering expanding our risk appetite at exactly the wrong point and potentially walking straight into a regulatory challenge and criticism from both the Street and the Board.”<sup>72</sup> The warning went unheeded and not long after, having grown weary of battling the growth of high-risk loans, Vanasek resigned.<sup>73</sup> After he left, “many of his risk management policies were ignored or discarded. For example, by the end of 2007, stated income loans represented 73 percent of

WaMu's Option ARMS, 50 percent of its subprime loans, and 90 percent of its home equity loans."<sup>74</sup> In late 2006, Vanasek's successor, Ron Cathcart, elevated the risk of "residential real estate and mortgage market exposure" to the second-highest risk level at WaMu.<sup>75</sup> Again, the impact of this salient shift in priorities was modest. Warnings had become "noisy" signals because the culture was moving toward the concept that "we are all in sales."<sup>76</sup> If everybody is in sales, then they all interpret weak signals of failure in the context of sales issues. And selling a high-risk loan is a sales win. Furthermore, if your marching orders are "go out and sell," the admonition to "go out and spot risk" makes no sense.

From late 2007 until the bank was seized, the chief enterprise risk manager, Ron Cathcart, was "excluded from Board meetings and calls with investment bankers because he was forthright about WaMu's mortgage loss rates."<sup>77</sup> Recall our earlier mention that, when Cathcart told Killinger that the bank's rating was about to be downgraded, Killinger walked out on him. Also recall our earlier mention that there was high turnover among employees who were experts in monitoring risk, compliance with Federal regulations, and risk mitigation.

As a final example of expertise and WaMu, consider people who issue mortgage insurance. They are experts on risk and have their own underwriting criteria. When Radian Guaranty Inc., an insurance firm, examined a sample of WaMu loans in 2006, it judged the loans "unacceptable" and ineligible for insurance.<sup>78</sup>

### **What Do We Learn from the WaMu Case?**

Our discussion of the demise of WaMu may strike the reader as basically an effortless analysis with a guaranteed moral. Or as it is more commonly described, the analysis is a little like shooting fish in a barrel. We select obvious shortcomings and argue, "You can do better than this."

Actually, we see this differently. We're not trying to *shoot* fish in a barrel; we're trying to *create* fish in a barrel. You won't find fish swimming in distinct barrels in most organizations. And WaMu didn't either. Instead, you'll find fluid situations that stream past you, unlabeled.<sup>79</sup> Typically, one person's fish in a barrel is another person's confusion. Our point is that if you act more like HROs, then you will focus on a set of capabilities that will make surprises more salient, earlier. These capabilities, in the form of five guidelines, form a barrel that puts boundaries around potential threatening events that now become easier to handle. HROs know what to look for, but more crucially they know how to look.

WaMu teaches us that surprises can take several forms. First, surprise can take the form of what Brian Kyles calls "a bolt from the blue."<sup>80</sup> Something appears for which you had no expectation, no prior model of the event, and no hint that it was coming. In the case of WaMu, the hiring of a new CEO 18 days before the bank was closed occurred out of the blue. A second form of surprise occurs when an issue is recognized, but the direction of the expectation is wrong. WaMu expected housing prices to continue their upward trend, but those prices suddenly trended downward. A third form of surprise occurs when you know what will happen, when it will happen, and in what order, but you discover that your timing is off. WaMu salespeople knew that subprime loans were risky and that in some cases they might have to foreclose on the property, but they did not expect that several borrowers would default on their very first payment. A fourth form of surprise occurs when the expected duration of an event proves wrong. When housing prices unexpectedly went down, this was viewed as a temporary correction and not as a bubble that would continue to collapse. A fifth form of surprise occurs when a problem is expected but its amplitude is not. WaMu knew that when it moved more fully into subprime lending, higher gains came with



greater risks. But it did not realize that its escalating commitment to this type of loan would produce losses that would bring down the bank.

In each of these five cases of surprise at WaMu, the surprise starts with an expectation. People start with expectations that senior management will not be shuffled in desperation, housing prices will stabilize, defaults will be gradual, corrections will be limited in scale, and strategies will be well thought out. Presumably, if you hold these expectations, you look for evidence that confirms them rather than evidence that disconfirms them. If you find confirming evidence, this “proves” that your hunches about the world are accurate, that you are in control, that you know what’s up, and that you are safe. The continuing search for confirming evidence postpones your realization that something unexpected is developing. If you are slow to realize that things are not the way you expected them to be, the problem worsens, becomes harder to solve, and gets entangled with other problems. When it finally becomes clear that your expectation is wrong, there may be few options left to resolve the problem. In the meantime, efficiency and effectiveness have declined, the system is now vulnerable to further collapse, and safety, reputations, and production are on the line.

Just what constitutes a reliability issue in all of this? In this book we treat reliability as a dynamic nonevent. This is shorthand for the idea that ongoing adaptability and a premium on cultivating resilience sustain continuity when performance is threatened by breakdowns. Adaptability and resilience in the face of surprise depend on how units manage weak signals of failure, temptations to simplify, the fine grain of operations, and their usage of expertise. In the case of WaMu, dynamic adapting to environmental changes steadily broke down. The linkages between loan origination and profit were becoming looser, more variable, and less predictable. Management reasoned, if we increase our share

of the subprime market, then we'll make more money. But, the bank was not adapting reliably to the worsening of the real estate market, which meant that surprises in the form of increased defaults, delinquencies, and signs of fraud began to increase. The hallmark of reliable performance, dynamic nonevents, was being replaced at WaMu by the more ominous activity of delayed, reactive treatment of unforeseen threats. From the standpoint of reliability, the issue at WaMu is not that more surprises were occurring. Instead, the reliability issue is that resilient action in the face of these mounting surprises decreased.

What does it mean, then, to manage an unexpected event well? Good management of the unexpected is mindful management. By this we mean that people organize themselves in such a way that they are better able to notice the unexpected in the making and halt its development. If they have difficulty halting the development of the unexpected, they focus on containing it. And if the unexpected breaks through the containment, they focus on resilience and swift restoration of system functioning.

By *mindful*, we also mean that systems strive to maintain an underlying style of mental functioning that formulates increasingly plausible interpretations of the context, the problems that define it, and the remedies it contains. The difference between HROs and other organizations is often most evident in the early stages, when the unexpected gives off only weak signals of trouble. The overwhelming tendency is to respond to weak signals with a weak response. Mindfulness preserves the capability to see the significance of weak signals and to respond vigorously.

## Conclusion

Organizing is about coordination. And the ways in which coordination is accomplished have a dramatic effect on managing the unexpected. Barry Turner points to the vulnerability inherent in

coordinating: “As a caricature, it could be said that organizations achieve a minimal level of co-ordination by persuading their decision-makers to agree that they will all *neglect* the same kinds of consideration when they make decisions.”<sup>81</sup> The problem is not with neglect per se. That’s unavoidable. The problem instead lies with the innocent-sounding words “persuading,” “agree,” and “same kinds of consideration.” These words all refer to activities that attempt to convert differing concepts and perceptions into ones that are more similar. As this conversion proceeds, neglected differences can become potential sources of disruptive surprise. Mitigation of those surprises depends on variety in sensing and reacting. Intense neglect can undermine that variety. The variety that was available at WaMu to comprehend a changing financial environment steadily decreased as warning signs were dismissed, a singular mission was imposed, personnel were selected for their similarity, divergent voices were silenced, rationales were simplified, and metrics failed to register outliers. None of this shrinkage was mandated. Things could have been otherwise. WaMu is not that different from the organizations in which you participate. All organizations, HROs and non-HROs alike, develop culturally accepted beliefs about the world and its hazards. All organizations develop precautions against these hazards that are set out in norms, regulations, procedures, rules, guidelines, job descriptions, and training materials. And all organizations accumulate unnoticed events that are at odds with accepted beliefs about hazards. These very similarities encourage transfer of the lessons of HROs to other organizations where possible hazards take the form of threats to assets, careers, reputations, legitimacy, credibility, support, trust, or goodwill.

What is striking to us about HROs is that they develop beliefs about the world and its hazards with fewer simplifications, less finality, and more revision than we see in many organizations. The definition of what is hazardous is continually refreshed. And

like all organizations, HROs accumulate unnoticed events that are at odds with what they expected, but they tend to notice these accumulated events sooner, when they are smaller. They also concentrate more fully on the anomaly, its meaning, and a recovery that will restore reliable performance. Each of these elaborations of the basics by HROs suggests directions in which other organizations can make their own elaborations in the interest of heightened mindfulness.

## Overview of Subsequent Chapters

The remaining chapters cover the following topics. In Chapter 2 we describe the infrastructure of mindful organizing as a combination of expectations, sensemaking, organizing, and managing. These four are explored in the context of efforts by the staff of the Baltimore & Ohio Railroad Museum to manage the collapse of a snow-laden roof onto the artifacts of its world-famous collection. In Chapters 3 through 7 we take a closer look at failure, simplification, operations, resilience, and expertise, one principle at a time. In each of these five chapters, we examine nuances that are implicit in the principle, describe ways to observe its operation, and suggest implications of those observations for practice. Chapter 8, built on successes and failures in the reliability culture at Toyota, spells out how organizational cultures can be produced, lost, recovered, and maintained by mindful organizing. In Chapter 9 we summarize recurring ideas in the book.