BOOK NOTES: Right Kind of Wrong: The Science of Failing Well

by Amy C. Edmondson

Announcement

New virtual LeanBook.Club starting January 3rd!

Book: https://www.amazon.com/Right-Kind-Wrong-Science-Failing/dp/1982195061

We used to think of failure as the opposite of success. Now, we're often torn between two "failure cultures": one that says to avoid failure at all costs, the other that says fail fast, fail often. The trouble is that both approaches lack the crucial distinctions to help us separate good failure from bad. As a result, we miss the opportunity to fail well.

After decades of award-winning research, Amy Edmondson is here to upend our understanding of failure and make it work for us. In Right Kind of Wrong, Edmondson provides the framework to think, discuss, and practice failure wisely. Outlining the three archetypes of failure—basic, complex, and intelligent—Amy showcases how to minimize unproductive failure while maximizing what we gain from flubs of all stripes. She illustrates how we and our organizations can embrace our human fallibility, learn exactly when failure is our friend, and prevent most of it when it is not. This is the key to pursuing smart risks and preventing avoidable harm.

With vivid, real-life stories from business, pop culture, history, and more, Edmondson gives us specifically tailored practices, skills, and mindsets to help us replace shame and blame with curiosity, vulnerability, and personal growth. You'll never look at failure the same way again.

When: Starting January 10, 2025, every Friday from 1 PM to 2 PM Eastern for six weeks.

Sign-Up: Sign-up at www.leanbook.club. I am limiting this to 15 participants. Microsoft Teams invitations will be sent to participants.

Next Steps: Sign up, order your book*, and read the first week's assignments on

*I certify that I have NO affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this book or with the author. #lean #bookclub #networking

Agenda

1. Week 1, 1/10/25, Chapter 1
2. Week 2, 1/17/25, Chapter 2
3. Week 3, 1/24/25, Chapter 3
4. Week 4, 1/31/25, Chapter 4
5. Week 5, 2/7/25, Chapter 5
6. Week 6, 2/14/25, Chapter 6
7. Week 7, 2/21/25, Chapter 7
8. In-Person Session at Healthcare Systems Process Improvement Conference
9. Week 8, 2/28/25, Chapter 8

Sign-up:
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Author: Amy C. Edmondson is the Novartis Professor of Leadership and Management at the Harvard Business School, a chair established to support the study of human interactions that lead to the creation of successful enterprises that contribute to the betterment of society. She is the author of 7 books and over 60 scholarly papers, published in academic and management outlets, such as Administrative Science Quarterly, Academy of Management Journal, and Harvard Business Review. She is a sought-after keynote speaker with a worldwide following.

Notes:

1. Week 1, 1/10/25, Chapter 1
    a. Prologue
        i. Your first-grade teacher probably told you that errors are a crucial source of learning.
        ii. Most of us feel ashamed of our failures. We're more likely to hide them than to learn from them.
        iii. If you're not failing, you're not journeying into new territory.
    b. Introduction
        i. Success is stumbling from failure to failure with no loss of enthusiasm.—Winston Churchill
        ii. I believe that part of successfully navigating failure to reap its rewards—and, importantly, to avoid the wrong kinds of failure as often as possible—starts with understanding that not all failures are created equal. As you will see,

some failures can rightly be called bad. Fortunately, most of these are also preventable. Other failures are genuinely good. They bring important discoveries that improve our lives and our world.

iii. fatigued individuals made more errors than their well-rested counterparts, but because they had spent time working together through multiple flights, they'd made fewer errors as teams.

iv. This surprise finding about the importance of teamwork in the cockpit helped fuel a revolution in passenger air travel called crew resource management (CRM), which is partly responsible for the extraordinary safety of passenger air travel today.

v. Successful innovation is only possible as a result of insights from incremental losses along the way.

vi. When people believe mistakes will be held against them, they are loath to report them.

vii. Good failures are those that bring us valuable new information that simply could not have been gained any other way.

viii. violations occur when an individual intentionally deviates from the rules.

c. # Part One: The Failure Landscape

d. ## CHAPTER 1 Chasing the Right Kind of Wrong

i. Failing well is hard for three reasons: aversion, confusion, and fear. Aversion refers to an instinctive emotional response to failure. Confusion arises when we lack access to a simple, practical framework for distinguishing failure types. Fear comes from the social stigma of failure.

ii. Rationally, we know that failure is an unavoidable part of life, certainly a source of learning, and even a requirement for progress. But, as research in psychology and neuroscience has shown, our emotions don't always keep up with our clear-eyed, rational understanding.

iii. Why are we so sensitive to negative information and criticism? Well, it seems to have offered a survival advantage for early humans, when the threat of rejection from the tribe could mean death. This left us disproportionately sensitive to threats, even the merely interpersonal threat of looking bad in the eyes of others.

iv. The bronze medalists had reframed their result—from a loss to a gain. That simple—and scientifically valid—reframe gave them joy instead of regret.

v. Studies find today's teens, in particular, are obsessed with putting forward a sanitized version of their lives, endlessly checking for "likes" and suffering emotionally from comparisons and slights, real or perceived.

vi. Failures may never be fun, but with practice using new tools and insights they can become less painful and easier to learn from. This is a summary of my career, "Success is stumbling from failure to failure with no loss of enthusiasm.—Winston Churchill"

vii.

Why We Fail at Failure	What Helps
Aversion	Reframing to build healthy attributions
Confusion	A framework to discern failure types
Fear	Psychological safety

FIGURE 1.1: The Relationship between Psychological Safety and Standards

Failure Science

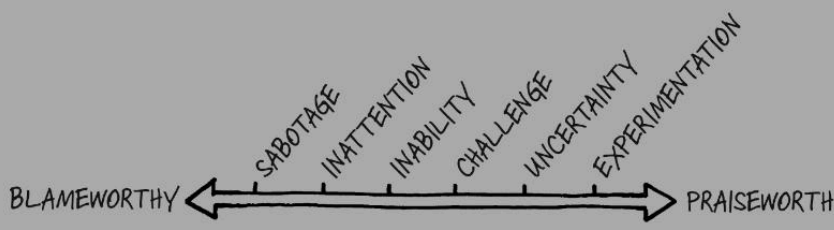


FIGURE 1.2: A Spectrum of Causes of Failure

Context	Consistent	Variable	Novel
Example	Vehicle assembly line	Surgical operating room	Scientific laboratory
The state of knowledge	Well-developed	Well-developed knowledge, vulnerable to unexpected events	Limited
Uncertainty	Low	Medium	High
Most common failure type	Basic failure	Complex failure	Intelligent failure

2. Week 2, 1/17/25, Chapter 2
    a. CHAPTER 2 Eureka!
    b. When she saw the dystopian science fiction movie Gattaca
    c. “High-performing individuals aren’t used to making mistakes. It’s important to learn to laugh at ourselves or we’ll err on the side of being too afraid to try.”
    d. “The only people who never make mistakes and never experience failure are those who never try.”
    e. Mistakes are deviations from known practices.
    f. What makes a failure qualify as intelligent? Here are four key attributes: it takes place in new territory; the context presents a credible opportunity to advance toward a desired goal (whether that be scientific discovery or a new friendship); it is informed by available knowledge (one might say “hypothesis driven”); and finally the failure is as small as it can be to still provide valuable insights.
    g. Play is integral to the spirit of intelligent failure. It doesn’t always have to sting.

h. “the ‘fail fast’ mantra,” which overemphasizes action, shortchanging preparation. Moreover, while this might seem self-evident, once you’ve done the homework, you must heed what it’s telling you.
i. those in charge of a pilot do everything in their power to delight the small group of customers participating, even if it requires extra resources or staff to get things right. Unfortunately, then the full-scale launch of the new product or service, no longer operating in the idealized context of the pilot, doesn’t go well.
j. To design a smart pilot in your organization, you should be able to answer yes to the following questions: Is the pilot being tested under typical (or better yet, challenging) circumstances (rather than optimal ones)? Is the goal of the pilot to learn as much as possible (not to prove the success of the innovation to senior executives)? Is it clear that compensation and performance reviews are not based on a successful outcome for the pilot? Were explicit changes made as a result of the pilot?
k. Learning to fail begins with the setup: recognizing an opportunity in new territory; doing your homework and designing small experiments that conserve time and resources. This is not the work of philosophers. It requires a bias for action—iterative action.
l. It starts with curiosity. Elite failure practitioners seem to be driven by a desire to understand the world around them—not through philosophic contemplation, but by interacting with it. Testing things out. Experimenting. They’re willing to act!
m. “The key to my work,” he explained, “is learning from every mistake, the premise for every improvement.”
n. the company’s high-achieving young employees were hampered by the more subtle emotional aversion to failing. Too many of them had been straight-A students. “Failure’s a fun idea, but not for me” might well describe how they were wired. Converting an intellectual appreciation into an emotional acceptance that allowed risky experiments required frequent repetition of Kelley’s cheerful phrase. As Tim Brown, CEO from 2000 to 2019, explained in an interview with me in 2005, “The overriding spirit has been one of ‘Go get on with it, figure it out, do well! We’re here to support you, but we believe you can figure it out.’ ” The company’s embrace of intelligent failure has long been the not-so-secret driver of its success.
o. IDEO had to learn how to usher ideas through corporate systems. This would only happen if the project team welcomed a client member or two.
p. They shut down one path and force us to seek another. The discovery of what doesn’t work is sometimes as valuable as finding what does work.

TABLE 2.2: **Practices for Learning from Failure**

To Avoid	Don't Say	Try
Skipping the analysis	*I'll just try harder next time.*	Thinking carefully about what went wrong and what factors might have caused it.
Superficial analysis	*It didn't work. I'll just try something else.*	Analyzing what the different causes of the failure suggest about what to try next.
Self-serving analysis	*I was right, but someone or something else messed it up.*	Digging in to understand—and accept—your own contribution (small or large) to the failure.

q.

Attribute	Diagnostic Questions
Takes place in new territory	Do people already know how to achieve the result I'm pursuing? Is it possible to find a solution some other way, to avoid failure?
Opportunity driven	Is there a meaningful opportunity worth pursuing? What goal am I hoping to accomplish? Is the risk of failure worth taking?
Informed by prior knowledge	Have I done my homework? Before I experiment, do I have the available relevant knowledge? Have I formulated a thoughtful hypothesis about what might happen?
As small as possible	Have I mitigated the risks of taking action in new territory by designing an experiment that is as small as possible, while still being informative? Is the planned action the "right size"?
Bonus: you learned from it!	Have I mined the lessons from the failure and figured out how to put them to use going forward? Have I shared
	this knowledge widely to prevent the same failure from happening again?

3. Week 3, 1/24/25, Chapter 3
    a. Chapter 3: To Err Is Human
    b. The only man who never makes a mistake is the man who never does anything.—Theodore Roosevelt
    c. Making assumptions is another source of error.
    d. Neglect is yet another common cause of failure.
    e. These are basic failures. Unlike intelligent failures, which occur in unknown territory, basic failures involve errors in well-trodden terrain. Basic failures are not the right kind of wrong. In the continuum of failure types, they are farthest from intelligent failures. Basic failures are unproductive—wasting time, energy, and resources. And they are largely preventable.
    f. What about deliberate errors? A deliberate error is an oxymoron and is better labeled mischief or sabotage.
    g. sleep-deprived medical interns made 5.6 percent more diagnostic errors than well-rested interns.
    h. Faulty assumptions,based on scant evidence or poor logic, are a breeding ground for basic failures.
    i. Assumptions are taken-for-granted beliefs that feel like facts.
    j. The failure craze—the “fail fast, fail often” culture that wants us to embrace failure seemingly indiscriminately—takes inspiration from the intelligent failures inherent to innovation but risks glossing over the vast and varied failure landscape, which also includes basic and complex failure.
    k. A psychological bias known as the fundamental attribution error exacerbates the problem. Stanford psychologist Lee Ross identified this fascinating asymmetry: when we see others fail, we spontaneously view their character or ability as the cause. It’s almost amusing to realize that we do exactly the opposite in explaining our own failures—spontaneously seeing external factors as the cause. For example, if we show up late for a meeting, we blame traffic.
    l. Another best practice is acknowledging your own contributions—no matter how large or small—to the failures that do occur.
    m. What O’Neill knew was that worker safety could only be achieved when people at the company (at all levels) committed themselves to what he called “a habit of excellence”—a habit that would positively affect production quality, uptime, profitability, and, yes, ultimately stock price.
    n. he encouraged all of them to ask themselves, daily, whether every member of their teams could respond yes to three questions: Am I treated with dignity and respect by everyone, every day, in each encounter, without regard to race, ethnicity, nationality, gender, religious belief, sexual orientation, title, pay grade, or number of degrees? Do I have the resources I need—education, training, tools, financial support, encouragement—so I can make a contribution to this

organization that gives meaning to my life? Am I recognized and thanked for what I do?

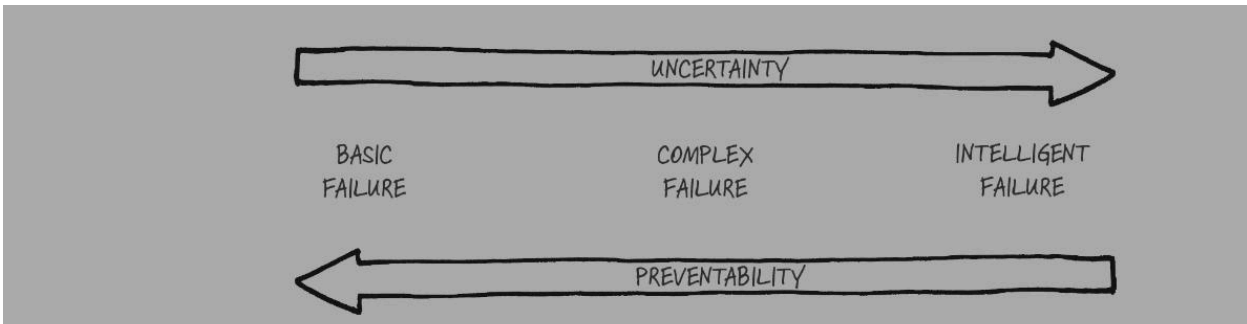
o. The genius of the Andon Cord lies both in how it functions as a quality-control device to prevent defects and in its embodiment of two essential facets of error management: (1) catching small mistakes before they compound into substantial failures, and (2) blameless reporting, which plays a vital role in ensuring safety in high-risk environments.
p. In short, blameless reporting is part of a coordinated learning system. Only by discovering errors can they be addressed and prevented.
q. much of what we call human error can be attributed to poor design.
r. Yes, to err is human. And to forgive (ourselves, especially) is indeed divine. But adopting simple practices to prevent basic failures in our lives and organizations is both possible and worthwhile. You might even say it's empowering.
s. 

FIGURE 3.1: The Relationship between Uncertainty and Preventability

4. Week 4, 1/31/25, Chapter 4
    a. Chapter 4: The Perfect Storm
    b. classic example of a complex failure. The "many little things" adding up to produce a failure, whether large or small, captures the essential feature of this third type.
    c. It's this familiarity that makes complex failures so pernicious. In familiar situations you feel more in control than you actually are—say, driving home (familiar) despite consuming alcohol at a party—making it easy to be lulled into a false sense of confidence.
    d. Overconfidence is a precursor to complex failure, just as it is to basic failure.
    e. Multicausal Complex failures have more than one cause, none of which created the failure on its own.
    f. complex failures are generally preceded by small warning signs that get missed, ignored, or downplayed.
    g. textbook case of a widespread belief among employees that speaking up would trigger retribution rather than appreciation.
    h. Swiss cheese model calls attention to the defenses that normally prevent consequential failures in complex systems such as hospitals. Holes

i. high reliability organization, or HRO, captures the essence of the theory. HROs are reliably safe because of how they make everyone in them feel accountable to one another for practices that consistently catch and correct deviations to prevent major harm. Vigilance is one word for it. But it's more than that.
j. The false alarm is instead experienced as a valuable learning moment, a welcome education on how things go wrong and how to adjust so as to reduce that possibility.
k. in each of the instances where something had gone wrong, he and his team were able to "think beyond the thing." Instead of getting stuck in "the thing," or the immediate error, they were able to "think beyond" and work together to do what's called catch and correct.
l. It starts with framing. Explicitly emphasizing the complexity or novelty of a situation helps put you in the right state of mind.
m. Next, make sure to amplify, rather than suppress, weak signals.
n. Finally, make a habit of practicing.
o. don't be surprised if you see people routinely doing dry runs, drills, or practice sessions.
p. They have great records because they catch and correct error.
q. That takes practice.
r.

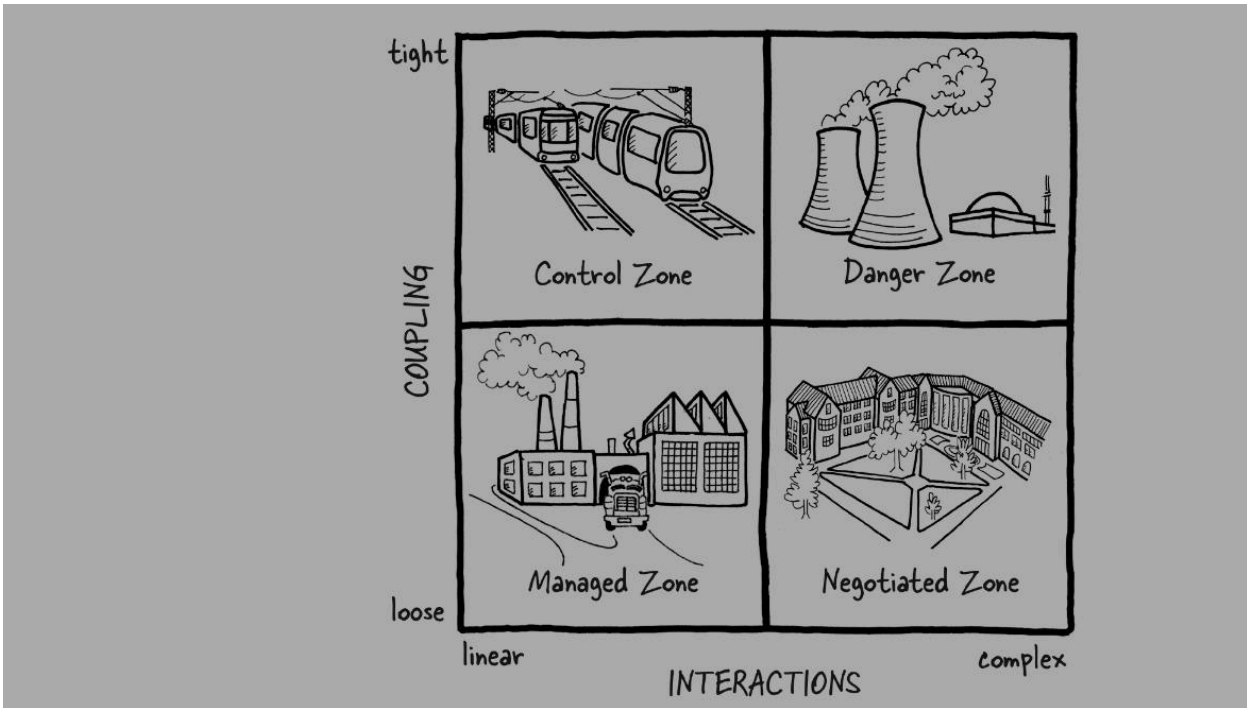


FIGURE 4.1: Perrow's Model Revisited

5. Week 5, 2/7/25, Chapter 5
    a. PRACTICING THE SCIENCE OF FAILING WELL
    b. Chapter 5: We Have Met the Enemy > Page 167 · Location 2457
        i. Even if you were familiar with the concept of confirmation bias, chances are that you rarely stop to consider the role it plays in your day-to-day life.
        ii. From a survival perspective, an organism is better off overreacting to a false positive—running or hiding because the shape might be a dangerous bear—than failing to react to a false negative by continuing on blithely, only to be mauled by a bear.
        iii. But today when we're afraid to speak up about failure, our colleagues lose valuable opportunities to learn vicariously. Also, we miss out on opportunities to avoid preventable failures.
        iv. Failing to Learn from Failure
        v. Brown distinguishes between shame and guilt. Shame is a belief that "I am bad." Guilt, in contrast, is a realization that "what I did is bad." "I am bad because I didn't do my homework" engenders feelings of shame. But if I see my actions as bad (guilt), it fosters accountability. It is thus better to feel guilty than ashamed; as Brown tells us, "Shame is highly, highly correlated with addiction, depression, violence, aggression, bullying, suicide, eating disorders… [while] guilt [is] inversely correlated with those things."
        vi. It stands to reason that social media is shaping our behavior in ways that make sharing problems, mistakes, and failures harder than ever.
        vii. Spending considerable time on social media creates a risk of seeing ourselves as failures by comparison to the edited lives that others are living.
        viii. 'You know what? You're imperfect, and you're wired for struggle, but you are worthy of love and belonging.' "
        ix. Adam Grant devoted his compelling book Think Again to the idea that, with conscious effort, we can indeed learn to challenge our automatic thinking.
        x. Framing is a natural and essential cognitive function; it's how we make sense of the continuous , overwhelming, confusing information coming our way.
        xi. Viktor Frankl elucidated the power of reframing for readers of his timeless book, Man's Search for Meaning. Enduring concentration camps, including Auschwitz, in part by imagining himself in the future sharing stories with those on the outside of the courage he saw in others, Frankl deliberately reframed the meaning of the horrors he was experiencing. Trained as a psychiatrist and psychotherapist, he recalls this as a moment of transformation—a shift from minute-to-minute suffering and fear to hope grounded in a plausible vision of the future. Frankl's

remarkable story of resilience shows how seeing the same situation in a new way can be life enhancing.

xii. Model 1 thinking implicitly seeks to control a situation, to win, and to appear rational. When we see the world through a Model 1 frame, we routinely make assumptions about others' motives, many of them unflattering. Making things worse, we fail to wonder what we might be missing or what we can learn. Model 2, in contrast, exudes curiosity, is aware there are gaps in our thinking, and is eager to learn. Chris maintained that Model 2 was rare but could be learned with effort. It starts with a willingness to discover your shortcomings, as well as your successes.

xiii. Today my answer is this: choose learning over knowing.

xiv. At the core of the reframing task lie the words we use to express our thoughts, privately and aloud. Am I failing, or am I discovering something new? Do I believe I should have done better—and I'm bad for not having done so—or do I accept what happened and learn as much as I can from it? Am I okay with the discomfort that comes with new experiences? Will I give myself permission to be human? Permission to learn?

Habit	What It Means	How to Do It	Useful Questions
Stop	Pause to disrupt automatic emotional responses to situational stimuli to make it possible to redirect the spontaneous emotional and behavioral responses.	Take a deep breath to prepare to examine your thinking and consider its impact on your ability to respond in a way that (1) protects your longer-term health and (2) gives you more options.	• What is going on right now? • What is the big picture? • How was I feeling before this happened?
Challenge	Consider the content of your spontaneous thoughts to assess their quality and usefulness for achieving your goals.	Verbalize (to yourself) what's going on in your mind in response to this situation, and ask yourself which thoughts (1) reflect objective reality, (2) support your health and effectiveness, and (3) will be likely to elicit a productive response. Identify alternative interpretations of the situation that are based in objective reality and more likely to help you elicit a productive response—that is, deliberately reframe the situation in a way that helps you move forward and feel better.	• What am I telling myself (or believing) that is causing how I am feeling? • What objective data support or negate my interpretation? • What other interpretation of the situation is possible? • Based on all of the information I have, was my interpretation in my best long-term interests?
Choose	Say or do something that moves you closer to achieving your goals.	Respond in the way your reframed thinking suggests, so that you say and do things that help you move forward.	• What do I truly want? • What is going to best help me achieve my goals?

6. Week 6, 2/14/25, Chapter 6
    a. CHAPTER 6 Contexts and Consequences
    b. We cannot direct the wind, but we can adjust the sails!—Dolly Parton
    c. most teams fail to find a beep-free path in twenty minutes.
    d. teams should applaud their colleagues for discovering both quiet squares and beeping squares.
    e. Both provide vital new information about the path. Instead, people experience the tiny intelligent failure of a new beep as a mistake and feel embarrassed by it—an embarrassment that's amplified by others' reactions.
    f. A new beep is the right kind of wrong.
    g. Too many failures in life, and in companies, occur because we don't pay attention to context. Further,
    h. The goal of the Electric Maze is to elucidate psychological barriers to innovation. We don't like beeps going forward, but innovation won't happen without them. The maze exemplifies new territory, yet participants still feel they're supposed to know the answers. The goal of this chapter is to give you a new way of thinking about context to help you prevent certain kinds of failures while lightening the emotional load intelligent failures bring. Too many preventable failures—in life and in companies—occur because of insufficient attention to context.
    i. Practicing the science of failing well requires awareness of two dimensions of context: (1) how much is known and (2) what's at stake.
    j. consistent, variable, and novel contexts.
    k. Even situations that seem consistent may be more variable than you think.
    l. A key takeaway from the Electric Maze exercise is have fun experimenting when the stakes are low.
    m. Titrating vigilance
    n. Underestimating danger
    o. "purified water" (chemically treated tap water)
    p. Predictable and basic In predictable contexts, we often generate basic failures because of the temptation to "do it in your sleep."
    q. Variable and complex Complex failures are especially common in variable contexts.
    r. To thrive in the variable contexts in our lives we must be vigilant and resilient.
    s. Novel and intelligent
    t. framing statement. Framing is something experienced leaders do naturally because they recognize that people need help to diagnose and recode the context to be most effective.
    u. the moderate uncertainty of a variable context, along with high stakes. Perfectionism and ego are sources of danger in such a context. He explained, "There's enough dynamism, enough distractions, enough fatigue, enough

complacency. All the things that lead to error. It will happen. I am going to make mistakes, and I need the whole crew to participate. That's why I was saying that to them."

TABLE 6.1: **Three Dimensions of Consequentiality**

	Higher Stakes	Lower Stakes
Physical	Activities with life-or-death consequences, or the potential for grave injury, such as flying an aircraft or conducting surgery	Trying out a new sport where you might suffer sore muscles or small injuries
Financial	Putting a large sum of money into a risky investment	Buying a movie ticket without knowing anything about the film
Reputational	Activities subject to wide public scrutiny for which you may be underprepared or unqualified	Expressing a controversial opinion at a party to someone you don't know well

v.

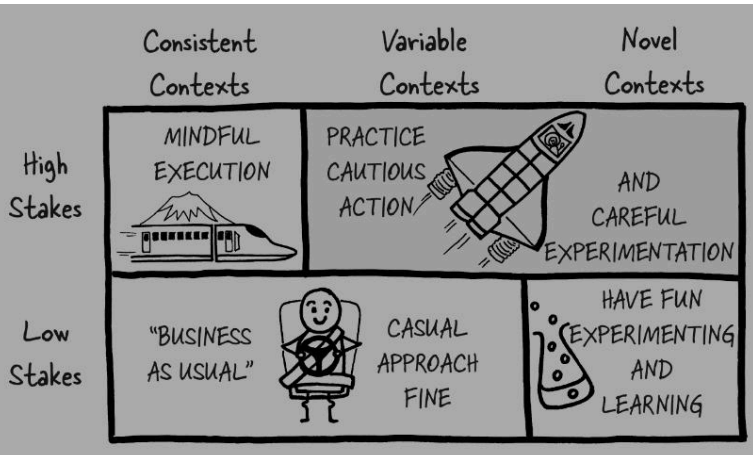
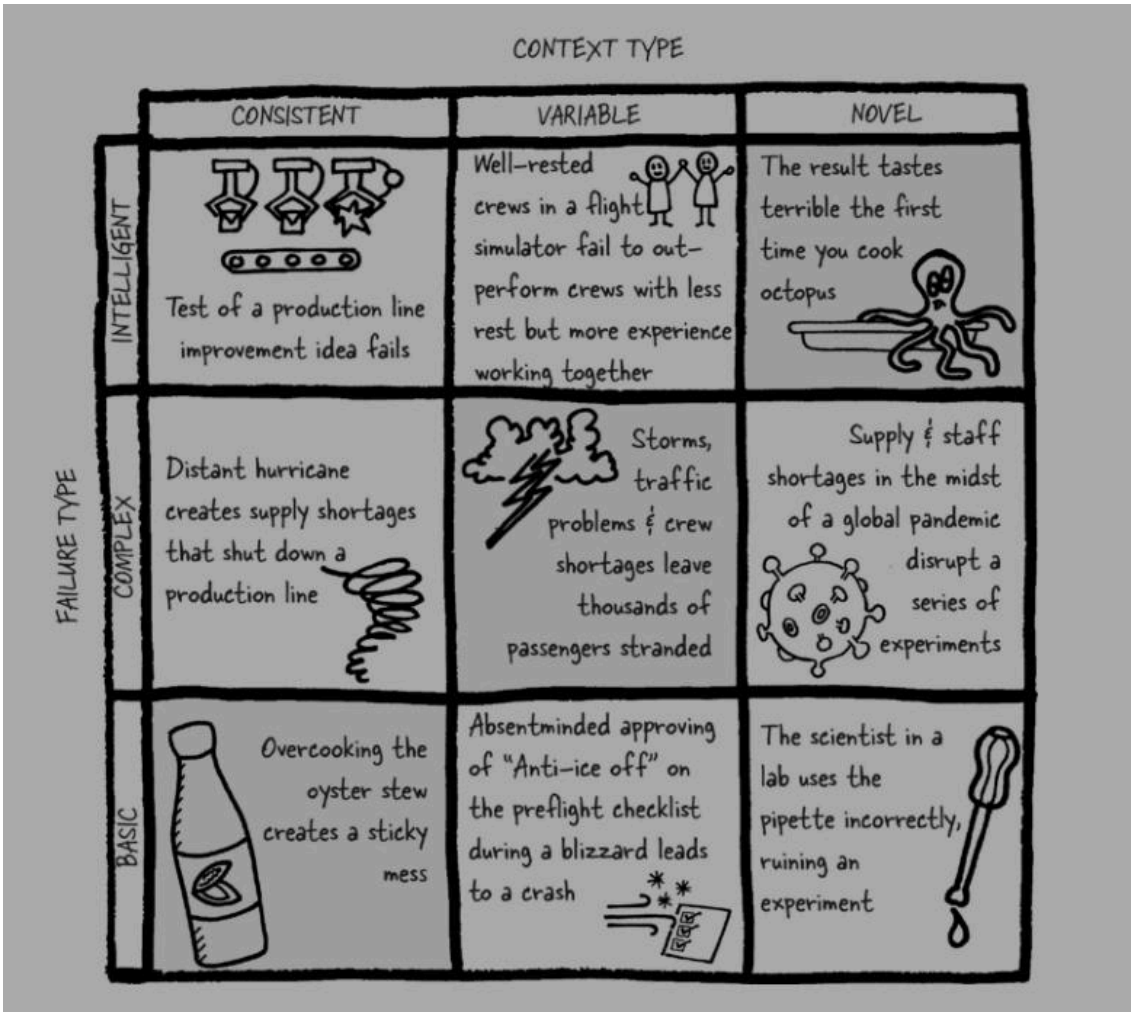


FIGURE 6.1: Navigating Context Type Based on High or Low Stakes



7. Week 7, 2/21/25, Chapter 7

a. Chapter 7: Appreciating Systems

b. A bad system will beat a good person every time.—W. Edwards Deming

c. Systems exhibit synergy: the whole is more than the sum of the parts. Put slightly differently, the behavior of the whole can't be predicted by the behavior of the parts examined separately. Only by considering the relationships between parts can you explain a system's behavior. There are man-made systems and nature-made systems. In every case, how elements interrelate is what matters most.

d. Whenever we say an accident was "waiting to happen," we're intuiting that a system was vulnerable to failure.

e. Complex failures, as noted in chapter 4, have multiple causes; yet too often we look for the single cause or culprit. Getting into the habit of looking for relationships between elements in a system allows us to anticipate and prevent all kinds of failures and breakdowns and, just as important, allows us to learn more from the failures that do occur.

f. Peter Senge, who described the exercise in his seminal 1990 book, The Fifth Discipline, constitutes a pretty simple system.
g. Practicing systems thinking starts with consciously expanding your lens from its natural preference for here and now to include elsewhere and later. Two simple questions can help: Who and what else will be affected by this decision or action? What additional consequences might this decision or action cause in the future?
h. Reliance on work-arounds does not just fail to improve the system, it makes it worse. To
i. For example, many of the nurses we spoke to described a “hero feeling” from using work-arounds that ensured that patients got the care they deserved.
j. Systems thinking lends itself to better system design. It’s possible to design organizational systems—or family schedules—so that many elements reinforce a key priority, say, quality or safety or perhaps innovation. Let’s take a look at some best-in-class systems in each of the categories.
k. engineers were allowed to spend 15 percent of their paid time pursuing crazy ideas that might turn out to be failures.
l. Perhaps that’s why in 1974, on a Sunday morning in a Presbyterian church in St. Paul, Minnesota, when Fry was frantically thumbing for the correct page in his hymnal, he remembered Silver’s misfit adhesive. Wednesday evenings, during choir rehearsal, he often put little pieces of paper into the book to mark the music the choir would sing during the service. Sundays, when he opened the hymnal, to Fry’s annoyance the pieces would often flutter out. This Sunday, something clicked. Fry found himself wishing for a better bookmark, one that could stick to the pages of his hymnal without pulling it apart. Maybe Silver’s adhesive would solve the problem. Fry started to think about sticky notes in pads. At work the next day, Fry procured a sample of the microspheres and began to experiment. His colleagues were not sold on the idea, and he decided to set up shop in his home basement, where he spent a few months building a machine to produce the sticky notepads. Years later, in his late seventies, he would emphatically assert that what happened at 3M over the next six years to develop today’s ubiquitous Post-it notes “wasn’t an accident.” It was instead the result of a series of intelligent failures, supported by a system designed to encourage persistence to produce innovation. Let’s take a look at a few of the hurdles that had to be overcome. First, Fry had technical hurdles to get the microspheres to a consistency that could be applied to a narrow band along the lower edge of one side of a strip of paper, so as to share prototypes with his colleagues and supervisors. Yet even that success was dubious; realistically, how many people would want to buy a bookmark, no matter how nifty its application?
m. What Fry calls the “eureka, head-flapping moment” happened when he sent a report to a supervisor with a note on the front written on part of the bookmark and the supervisor wrote back on the same piece of paper. A sticky note that could be repositioned had so many more uses for so many more people than a sticky

bookmark! Apparently convinced by Fry's proof of concept, 3M executives then agreed to produce a small run of sticky notepads. That hopeful step, however, soon turned into more of a setback: subsequent market testing of the new product in a few cities produced little enthusiasm from consumers. But Fry saw this first failed attempt to sell what was then called Press 'n Peel as inconclusive. He decided on a new experiment—marketing to a different demographic, the people who worked at 3M. From his office, Fry distributed pads one at a time to friends and colleagues. He instructed people to return when they wanted another pad. Importantly, he kept a careful log of how many pads each person used. The data he collected was promising: up to twenty pads per individual per year. After more usability test runs within the company—pallets of the pads that were set out in the halls quickly emptied!—3M was finally convinced to launch an intensive marketing campaign in 1980. The rest, as they say, is history.

n. The key is to understand that the Toyota Production System creates a community of scientists.
o. Toyota's community of scientists works to perfect a system of production designed to remove unwanted variation and ensure perfect quality; the scope of experiments is limited for the most part to those that improve existing processes.
p. 3M presents a good system for innovation, and Toyota presents a system for ensuring quality in a predictable context, how would we design a system to prevent both basic and complex failures in a variable context? A good place to look for answers is a modern tertiary-care hospital, which epitomizes a variable context.
q. "the old ABC model of medicine: Accuse, Blame, Criticize."

8. In-Person Session at Healthcare Systems Process Improvement Conference
9. Week 8, 2/28/25, Chapter 8
    a. CHAPTER 8 Thriving as a Fallible Human Being
    b. Barbe-Nicole ingeniously designed special racks, called pupitres, that held the bottles at an angle and could be turned so the lees would gather in the neck of the bottle. This seemingly simple innovation was revolutionary, resulting in the clear sparkling wines for which she would become famous.
    c. Willing to take thoughtful risks while learning how to improve the champagne quality and expand the business, she seems not to have beaten herself up over the many things that did go wrong in the making, selling, and shipping of fine wines. Perhaps she intuited the concept of intelligent failure—new terrain, pursuing an opportunity, and only risking failures never too large to overcome—and this explains her ability to persist resolutely for years before her business began to thrive. The connection between champagne and celebration also serves as a reminder that all of us can celebrate failure as part of a full and meaningful life.
    d. Embracing Fallibility How do you thrive as a fallible human being?

e. A certain freedom comes from learning to live comfortably with who you are. Fallibility is a part of who we are. Self-acceptance can be seen as brave. It takes courage to be honest with oneself, and it's a first step in being honest with others. Because failure is a fact of life, failing is not a matter of if but when and how.
f. But thriving as a fallible human being also means learning to fail well: preventing basic failures as often as possible, anticipating complex ones so as to prevent or mitigate them, and cultivating the appetite for more frequent intelligent failures. Learning to recognize and learn from each of the three failure types and strengthen each of the three awareness zones is a lifelong process.
g. Sometimes accepting fallibility means accepting society's fallibility so as to respond with equanimity to an injustice.
h. Over the past few years as inequities in society have moved to center stage in national conversations around the world—finally achieving the attention they deserve—I frequently felt inadequate in my lack of expertise in the science of diversity, equity, and inclusion.
i. Psychological safety, which means believing it's safe to speak up, is enormously important for feeling a sense of belonging. But belonging is more personal, while psychological safety is more collective (it is conceptualized in research studies as an emergent property of a group) and, I think, it is co-created by individuals and the groups to which they wish to belong.
j. Resisting perfectionism Perfectionism, or holding yourself to excessively high standards and self-criticism, is the subject of considerable research.
k. The summer built up his failure muscles
l. Hobbies present a great arena in which to practice failure. Hobbies are about fun and the stimulation of learning something new rather than about achievement or making a living—a low-stakes context.
m. To do this, it helps to incorporate a few basic failure practices—persistence, reflection, accountability, and apologizing—into your life.
n. fine line between persistence and stubbornness.
o. How do you know when to persist and when to give up? A rule of thumb to justify persistence is to find a credible argument that the not yet realized value you seek to create is indeed worthy of continued investment of time and resources. To make sure your stubbornness is not misguided or that you are not clinging to an unrealistic dream, you must be willing to test your argument with others in your target audience. Make sure to go to people willing to tell you the truth!
p. Saying you're sorry With fallibility comes failure, and with failure comes an opportunity to apologize.
q. "I am truly sorry for what I did" and "It was wrong, because…" and "I take full responsibility, and moving forward I promise to…"
r. "I am committed to earning your confidence back."
s. Encourage failure sharing

t. When someone else in your organization repeats a failure that wasn't shared, it's the worst kind of waste. That is why innovation powerhouses such as IDEO encourage employees to share failures widely.
u. The Failure Institute hosts their trademarked Fuckup Nights to help people become more authentic in work and life.
v. Failure parties and awards to spur risk-taking are no longer unusual.
w. A healthy failure culture rewards intelligent failure. Without it, there can be no innovation. Without innovation, no organization can survive over the long term. But vaguely negative consequences for not trying can make a healthy failure culture even more powerful.
x. The science of failing well, like any other science, is not always fun. It brings good days and bad. It's practiced by fallible human beings working alone and together. But one thing is certain. It will bring discovery. Discoveries about what works and what doesn't work in achieving the goals that matter to you, along with discoveries about yourself.