CHAPTER 2

THE UNCOMFORTABLE CHAPTER

"We must be able to question assumptions and the assumptions on which the assumptions are based."

—Peter Gamwell

Jane and I call this *The Uncomfortable Chapter* because, well, it might make some people a bit uncomfortable. In fact, we struggled over whether or not to include it, because we really don't like creating awkward moments.

So if you'd rather, feel free to skip over this chapter and continue on with the rest of the book. You can always come back to it later if you get curious. And in the meantime, you'll still get to explore eight inspiring stories where teachers, school boards, businesses, and communities are working together to spark innovation and bring out the seeds of brilliance in their people.

However, we believe that if you bear with us and read this chapter to the very end, you'll find getting there is well worth it. We believe you'll be able to reframe your thinking in such a way that you'll feel calmer, stronger, and more capable of dealing with the constant trials and turbulence we face in this ever-changing Age of Complexity. Best of all, you'll be better able to equip your students with the resilience they need to do the same.

This chapter will show you how you can question the assumptions and the assumptions on which the assumptions are based. The ability to do that is, after all, the very foundation of innovative thinking: If our cave-dwelling forebears had accepted the status quo without questioning it, we would never have reached a point where we could walk on the moon, cure disease, build artificial intelligence, or buy a Chia Pet in the shape of Baby Yoda. Your students will need abundant curiosity and the courage to fearlessly question the status quo throughout their lives. And we need to prepare them for that and give them the tools and the permission to do so.

As always, we don't pretend to have all the answers, so please email us at peter@petergamwell.com with your own questions, insights, and ideas. If you're still with us, let's take a deep breath, and off we go!

There's a New Monster Under Our Beds: Cognitive Dissonance on Steroids

We've all heard of cognitive dissonance, but in our Age of Complexity, it's evolved into something new. It's become cognitive dissonance that's on steroids. . . . in a blender . . . set to pulse—with the lid off. It's become the new monster hiding under our beds and in the dark corners of our minds, actively stifling innovation for ourselves and our students. Here's an example.

Misconceptions and Comfort Zones

Jane was once asked by a small marketing group to proofread a short paper. This marketing team was the new kid on the block, and was looking to find a niche with bankers, establishing themselves as intelligent, innovative thought leaders with fresh ideas. The plan was to distribute the paper to banking professionals, with recommendations on which segments of the population they should target for online banking services, which was just starting to grow.

Now at the time, there was a rather deeply ingrained belief that young adults had a natural, almost wizard-like ability to use digital technology. The thinking was that this cohort had grown up with technology, whereas those born earlier struggled to learn and adapt to this new way of doing things—not just because it was novel, but because they actually *feared* this new technology.

True to the mindset just described, the paper Jane was asked to proofread concluded the most promising market for online banking was the younger crowd. Older cohorts would be a waste of time, due to their fear of online technology.

That pervasive assumption gnawed at Jane. After all, while the younger generation was adept at using the internet, it was their parents' generation who had *invented* it. Why would older generations, who had built their own ham radios and go-karts and flown airplanes over a war zone and put a person on the moon—have a fear of online banking?

To satisfy her own curiosity, Jane decided to question the assumptions and the assumptions on which the assumptions were based. She went to the original research to see how it had been conducted. And that's where she discovered a key fact that turned the paper's premise on its head: Every one of the research participants, young and old alike, were selected from a group that was *already* banking online. The researchers had simply taken aggregate statistics of online banking services and correlated it to the ages of users. When it found older users used fewer online banking services than younger ones, the assumption was it was due to their fear of technology. Jane realized the more likely reason is that retired people are less likely to have the need to pay student loans, mortgages, registered education plans, or retirement saving plans—online or otherwise.

Back Jane went to her clients with her findings, suggesting they could include this exciting senior market as well as the younger set. She thought they would be happy. They decidedly were not. "They said it was common knowledge older people were afraid of technology, and they would lose credibility if they said otherwise."

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The funny thing, Jane noted, was that she was bringing them *good* news, the chance to develop a lucrative new market with opportunities for growth. And there was a lovely, warm, and fuzzy feel to it—an opportunity to help seniors do their banking from the comfort of their home.

But accepting the research's results would have required each individual to question their assumptions and change their ingrained perception about older adults and technology. Accepting the survey's results meant embracing a new way of thinking that was outside of the comfort zone. And so, they rejected it outright.

You've just seen how cognitive dissonance could negatively influence decision-making and innovation. But we believe such levels of cognitive dissonance have become even more extreme within the context of *today's state of complexity*. Understanding that is critical to setting up your students for innovative success.

Here's why. Ordinary cognitive dissonance is the uncomfortable feeling, or psychological distress, you get when you hold two or more beliefs or values that are at odds with each other. We believe, however, that in this Age of Complexity, we're being exposed to far more conflicting ideas and beliefs than ever before. Since our natural instinct during such chaotic times is to control whatever we think we can, we've moved beyond being uncomfortable with conflicting ideas within ourselves—and now seek to *control the ideas of others* that conflict with our own. This urge to control stifles innovation not only within ourselves but also within others, especially those (including our students) who fear speaking up or questioning the status quo.

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Cognitive dissonance isn't necessarily a bad thing. It can provide the motivation to improve ourselves, particularly when the cognitive dissonance comes from the sense that we're not reaching our full potential.

But cognitive dissonance is a double-edged sword. Especially in today's Age of Complexity, unchecked cognitive dissonance has become a blocker for innovation.

Blame It on Our Left Frontal Cortex

You can lay part of the blame on our left frontal cortex, an area of the brain that's involved in all kinds of things, from decision-making to anger to cognitive dissonance (Harmon-Jones, 2004). While we can't get into all the deep mysteries of this particular lump of grey matter here, it does influence cognitive dissonance in two key ways. In other words, cognitive

dissonance isn't simply about having uncomfortable feelings—it's actually biological.

First, researchers (Sharot et al., 2019) have found that when you and a fellow human agree on some point, this part of the brain lights up and becomes very active as the person explains the reasons behind their thinking. But if someone disagrees with you on an issue, it becomes *less* sensitive to the counterarguments. Your brain simply won't absorb or process the points made as effectively (Kappes & Sharot, 2019).

Add this to our Age of Complexity and the urge to control, and achieving agreement seems to be growing evermore difficult. We believe there are three main reasons why.

Why Has Reaching Agreement Become Ever More Elusive?

1. **Fallacies of the *one right answer* and the *one wrong problem***

   We not only fall for the fallacy of the "one right answer," we're now caught up in the fallacy of the "one wrong problem." In this Age of Complexity, competing interests and agendas, a myriad of issues, fast-paced changes, and seemingly insurmountable challenges—as well as unprecedented opportunities—are rising up to face the world from all angles, all at once.

   Humankind has always sought refuge from cognitive dissonance by seeking out like-minded souls and kindred spirits who generally share our opinions, values, and ideas. Brain science shows we're hardwired to do so (University of Kentucky, 2016). Our fight or flight response encourages us to flee to those who we feel will protect us (or at least not attack us), because we're of like mind.

   But today's overwhelming complexity brings on a state of anxiety, chaos, and confusion for many people, putting our discomfort with cognitive dissonance into monster-truck overdrive. We crave, more than ever, the stability and peace that comes from surrounding ourselves with those who think the same as we do. And let's face it—it really is easier to be with people who agree with us, rather than challenge our ideas. Sometimes debating or defending our beliefs requires emotional energy that's already in short supply. It's comforting to find our tribe and share criticisms, memes, and jokes about the things that the *other* side is doing, the things that scare us most in this uncertain new world.

   It's easy to see how this way of thinking blocks innovation. Diversity, of backgrounds and of thought, is the lifeblood of creativity and imagination—as well as the ability to talk civilly about new and different ideas. Unless we can do the hard work of putting ourselves into the

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shoes of people from all walks of life and persuasions, we'll never move beyond a fixed mindset and grow.

When we believe there's only one right solution to a problem, we stop considering other viewpoints or solutions. This prevents us from finding better methods or engaging in continuous improvement.

When we come upon a problem, we need to do the time-consuming, tough tasks of figuring out all the underlying issues and nuances that might contribute to the problem. Jumping on the first answer or blaming a scapegoat means the issue never gets fully solved, and the energy and resources expended far outweigh what it would have cost us if we had embraced the complexity in the first place.

2. **Avoiding cognitive dissonance has become an addiction**

Cognitive dissonance has always been with us, but something's changed. Why is cognitive dissonance, evolved to be a healthy response, such a powerful force in our lives today?

To find the answer, we need to look again at the left frontal cortex and other parts of the brain involved with rewards, such as shots of dopamine. As we already know, it feels good to find out we're right about something. Research shows that at the moment we realize we're right, hormones are released that literally give us a sense of mental and physical well-being (Weinschenk & Wise, 2012).

Conversely, when we're told that we're wrong about a belief we hold, by being downvoted, for example, or come across evidence or arguments that make us question our beliefs, this induces stress and our brain releases a shot of cortisol, a hormone that can cause feelings of confusion, anxiety, and depression. Research has shown that giving up Facebook can reduce these levels of cortisol (Nield, 2018).

It's not hard to see that it's far more pleasant, both mentally and physically, to believe that we're right! It makes evolutionary sense, as survival meant coming to an agreement on just what needed to be done to survive. But in times past, the world was a simpler place—not easier by any means, but far less complicated from a decision-making standpoint. Fight or flight were the two primary choices of our ancient forebears, and the consequences were clear, even if they were sometimes brutal.

Moreover, in times past, we had fewer people in our lives, fewer choices, and far less complexity in a world that consisted almost entirely of our close family and neighbors. Issues were typically confined to our own small rural area or community. If we disagreed with someone, the cognitive dissonance might still sting, but it was a blow that was contained within our small social footprint, with predictable consequences that were relatively short-lived.

Today, our ability to view news and strangers' opinions from around the world almost instantaneously and to communicate in real time with millions of people through social media, means that the intimate, relatively low-stakes disagreement of yesteryear now has the potential to go viral, with risks including death threats, job loss, and shunning. Seeking out people whom we know will agree with us looks more and more like the safer bet!

Significantly, as we saw in the 2020 documentary *The Social Dilemma*, there's evidence that each upvote our posts or tweets receive, each comment agreeing with us, gives us that same shot of feel-good hormones we get when we're told that we're right—and each post or tweet that challenges our increasingly entrenched views releases the barking hounds of cortisol (Orlowski et al., 2020).

It's no wonder so many flock to this wellspring of good feelings. But with Generation Z spending an average of eight to ten hours per day online, depending on which source you look at, I have to wonder if we've reached a tipping point not only in terms of innovation but also in human connection and empathy.

It's important to look at how we communicate and discuss issues in our world today. It seems email, texting, and phone calls are often considered the easier way to deliver bad news these days, rather than face-to-face. It's much easier to avoid the discomfort of cognitive dissonance when you communicate through social media. You can sort out your thoughts, ask a third party for advice, or walk away for a bit instead of responding immediately. And if you don't like a person's opinions, you can simply block or ghost them.

Our purpose here isn't to argue the pros and cons of one type of communication over another. But as far as innovation is concerned, the ability to cocoon ourselves from frank—and sometimes uncomfortable—discussions means you place yourself in a world of singularity, without diversity of thought. Instead of solving problems together, we simply avoid them, or we magically think they'll cease to exist if only we can force everyone else "on the other side" to stop talking about them.

When people shy away from face-to-face communication, it becomes harder to empathize with the other person. Research has shown that empathy among college students fell 40 percent between 1979 and 2009 (University of Michigan, 2010). Online, we don't see the whole person, both literally and figuratively speaking. We can't see body language or facial expressions, or we see a perfected photo-shopped image. Nuance gets lost in an email or a text. Sometimes, the medium truly is the message.

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3. We've returned to burning people at the stake

One of the imperatives for healthy and innovative environments is to create cultures of belonging. At first glance, it seems as though we have. We live in a world where we can instantly find hundreds, even millions, of people with whom we share ideas in common.

This can be a wondrous thing, when we gather with others to further positive goals and expand our thinking on certain topics. It fosters a growth mindset within the group. The challenge arises when we use it as an escape to avoid the collision of ideas, discussion, and debate, as well as critical thinking and self-reflection. Once we do that, we force ourselves into a fixed mindset, believing there's no longer a need to explore ideas any further.

We may no longer turn into angry mobs that go after people with pitchforks and torches, but we too often punish people for having a different opinion than we do. Consider our youth, who are well aware that "the internet is forever," and just imagine the fear they must have of saying the wrong thing or something others don't agree with.

Because we no longer have to consider or explore different ideas, we're increasingly encouraged to see things in a starkly *right or wrong* world. We pounce on small errors, setting expectations for perfection. We don't see the whole story of a situation or a person, but from behind our online personas and masks, we make judgements, often harshly.

This has created a deep fear about expressing opinions that go against the current bubble you're in. This isn't to say that there aren't some opinions that should change. We do need to eradicate issues such as bigotry, sexism, and ageism, for example. But real change doesn't grow out of fear or not communicating, but through learning. Every disagreement is a teachable moment for both sides, and a chance to change opinions and learn new things.

After all, if we can't be open to new ideas, if we can't discuss differing opinions, if we stop expressing ourselves for fear of online retaliation, then we lose one of the most important parts of our humanity.

Ten Insights About Learning in an Age of Complexity

Jane and I believe no one ever changed their values or opinions because someone fought with them, shamed them, or silenced them. We believe the only way to change a person's mind, and subsequently their behavior, is to first open our own minds and consider what they have to say

through active listening—sometimes they may well be right, or at least have some valid points, and we're the ones who change our ways of thinking or decide to look for a compromise. Then we can walk beside them and see what they're going through. In other words, we use a strength-based approach to help them see a different world and "what could be."

I believe students and adults respond best by having hope (through a strength-based perspective); having someone see the good in them (knowing they have seeds of brilliance); and creating a culture of belonging where they, too, are welcomed and feel they have something important to contribute.

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Deep change is never easy, and there is always pushback, especially when cognitive dissonance has become the powerful influence it is today. We've observed the effect of deeply ingrained assumptions of our society and know our schools and organizations must challenge these if we're to strive for a more optimistic and harmonious world in our new Age of Complexity. Teaching students (and adults) how to untangle and challenge these assumptions arms them with the tools they need to be more resilient and compassionate, and above all, gives them more power to think critically and innovatively.

We need to prepare our students and our colleagues for this unprecedented time that's so tumultuous, fast paced, and multifaceted that it's hard to determine the best course of action. The impact can be seen in our students (and adults), in the dramatic increases in depression, anxiety, suicide, and other mental health issues (Bloomberg School of Public Health Staff Report, 2020).

The following are ten key insights we believe teachers, parents, and other leaders can consider to help students and adults in overcoming pervasive cognitive dissonance. These ten principles can also give us a sense of control over what is now deemed uncontrollable.

Ten Insights About Learning in an Age of Complexity

1.   **See schools and educators as positive forces of change**. Our society currently believes change happens from the top down: from government down to the public, from adults to children, from the top brass to the shop-floor employees, from politicians to constituents. But we can embed and build the three imperatives from the top down and the ground up in our classrooms and boardrooms, as well as horizontally

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and vertically. Children who learn to live by the three imperatives (recognize that there is a seed of brilliance in everyone, think and act from a strength-based perspective, foster a culture of belonging) will naturally be more innovative and will take that creativity with them out into their companies and communities.

We must also understand that learning doesn't just take place in schools, but in businesses, organizations and broader society. Schools don't exist in a vacuum—they're part of a symbiotic system that extends into the community, and the community should extend into the school. We need to see negative events as teachable moments, taking a strength-based approach.

2. **Consider the interconnectedness of our world**, instead of trying to address every situation that needs fixing with a seesaw approach: that is, if one side is up, then another must be down, and the sole way to address this is to take some from one side and put it on the other until it balances out.

    The problem with this zero-sum approach is that it not only traps us into thinking that the resources and solutions we have available are finite, but it also prevents us from seeing that perhaps both sides are down or that we could work to get both sides up. The seesaw is unsustainable and eventually just substitutes a new problem for the old. With a strength-based approach, we may see that both or multiple groups need things to thrive, that they have things to offer each other, that they can work together, and that we can reimagine better solutions to benefit us all.

3. **Build partnerships and connections everywhere.** Partnerships are essential because they not only enable synergy but also interconnect us as a community. If families don't thrive, then schools won't have healthy, engaged students, and in turn businesses will not have the motivated, educated workforce they need to succeed in the global marketplace and build thriving communities. We must nurture the symbiotic relationship between schools, businesses, governments, communities, and individuals and groups. We can only benefit from improved bonds, relationships, and shared knowledge, resources, insights, and kindness.

    Teach your students about living systems and the interconnection of things. Point out during the daily goings-on in the classroom how things are connected and depend upon each other. Ask the students for their observations as well.

    Introduce real-life learning experiences. Partner up with companies, organizations, charities, another school, or governments in the area or internationally and ask them to describe to your students some of the things they're trying to solve or build. Let your students work on finding solutions and have them present them to the "client."

4. **Look at the unique needs of each individual, classroom, organization, and community.** A student might view himself as an average student, teenage father, artist, brother, employee, and hockey player. Each segment is a part of who he is—if we ignore the father while focusing on his average marks, or the musician while ignoring the artist, we may miss key ways in which to engage and inspire him. Similarly, we can't make the assumption that all people of a certain group have the same needs or desires. Bringing out the seed of brilliance in everyone recognizes their uniqueness. We need to learn how to compromise and work toward solutions. Model the behavior you want to see. Inspire and motivate. Demonstrate genuine concern for everyone's needs and feelings. Challenge our small thinkers, learners, dreamers, and doers to be innovative, to reach higher levels of performance, to bring out their very best efforts.

5. **Set a good example.** We tell students that bullying and cyberbullying will not be tolerated. Yet we too often provide the example that it is cool for adults to bully, mock, meme, humiliate, and name-call people we disagree with online, or even physically assault them in person, simply because their ideas differ from ours.

    How many of our children witnessed adults making fun of Trump's alleged orange skin tone? Or referring to him as a Cheeto? Consider that children (and adults) can develop an orange skin tone when battling cancer or various liver, kidney, and blood diseases. How did they feel when they heard the adults in their lives deriding someone for the color of their skin? When Joe Biden stumbled going up the stairs of Air Force One, how did children square the fact that some adults were laughing at his misfortune?

    If we are ever to weed out the problem of bullying, then we must become the leaders that we want our children to be. We need to teach them to debate ideas without demeaning people or individuals. We all need to practice empathy, regardless of our personal feelings about someone who disagrees with our values.

6. **Explore how to properly research and analyze conflicting viewpoints.** This is especially true when it comes to consuming news. In our Age of Complexity, we can no longer depend on hearing only one side of a story if we are to find solutions that benefit everyone in our communities. This has important implications for how we rethink, reimagine, and restructure our cultures of learning and our cultures of belonging.

    Teach students to question assumptions and the assumptions on which the assumptions are based. Show them multiple sides of the same issue or news story. Practice "what if." Try to come up with multiple solutions to one problem. Try to come up with multiple possible causes for that

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problem. Find a problem in your classroom, school, or community for them to resolve. Play detective. Play negotiator or mediator between two or more opposing sides.

7. **Embrace the things that hold us together, and nurture diversity while moving to a culture of inclusivity.** While we need to look at and address the unique needs of groups for the whole to thrive, we must also explore the many characteristics and goals we have in common. The more we collaborate, the more synergy, inspiration, and momentum we'll gain to reach goals we could never achieve alone. As educators, we will be able to model and ignite this synergy and understanding. Often overlooked, we need to address the bullies' or scapegoaters' concerns, too. Bullies often hurt others because they're emotionally troubled. We've seen amazing examples of how bullies or "problem" students are turned around when caring adults help them find their own seeds of brilliance.

8. **Expand beyond math and language to other subjects to explore.** Students must be able to make connections between many different subjects and competing issues if they're to succeed. For example, teaching empathy can help with reading skills. Teaching music helps with math. Teaching leadership provides the soft skills businesses say are their number-one need.

    As so many teachers already know, teaching to standardized tests only enables children to memorize language and math skills and then regurgitate them back. But a student who aces a spelling test can grow no further, unless they can innovate and take the leap from spelling words to creating books, speeches, and documentaries that change the world.

9. **See the challenges the world faces as interconnected, changing systems.** Discrimination; world hunger; war; the economy: These are all complex interconnected systems. We can't tackle them by dealing with each one individually. By the same token, we can work toward solving complex problems only as a team: acceptance, creative solutions to food production and distribution, peace, building a stronger economy through better education, and more.

10. **Think big, even while we start small.** Students need to understand that we can plan for the short-term, medium-term, and long-term, knowing that each small step builds a foundation for the next step. What we do today impacts not just the present but also the future and in some ways even the past—we are changing how we view history and learning new things as we look back at certain events with fresh eyes.

CHAPTER
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Key Takeaways

◗ The urge to avoid cognitive dissonance has become much more powerful of late: With the constant flux of changes and contradictory interests in our Age of Complexity, we yearn to be with like-minded people in a comfort-zone bubble.

◗ This increasing discomfort with cognitive dissonance has made us less tolerant of those with different opinions and ideas. We mistakenly believe there is only one right answer or belief system (or one wrong problem); we've become addicted to the dopamine hits of "likes" and others' agreement with our ideas; and we've returned to "burning people at the stake" online if we don't agree with their beliefs. This aversion to different ideas kills innovation and prevents us from finding better solutions.

◗ Ten insights to live and learn in an Age of Complexity: Ten ways to cope with and calm cognitive dissonance are discussed, enabling us to listen to, consider, and even embrace differing viewpoints with a goal to find more innovative solutions that make a better world for all.

Reflective Questions

1. As a leader, how do you feel when someone disagrees with you? Do you allow people to question assumptions and the assumptions on which they are based?

2. How do you react when you strongly disagree with someone else? Are you able to model active listening and empathy? Do you see it as a teachable moment for both of you, or do you try to shut the other person down?

3. Are you comfortable with conflict? How is conflict managed in your school or district, with teachers, students, parents, or other community members?
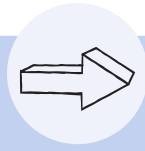
Try This!

Ask Me Three Questions

. . . .

Ask Me Three Questions

1. What do you see as the biggest problems in your world, and which one matters most to you?

2. What are the biggest opportunities you can see, and which one matters the most to you?

3. How would you reimagine that problem or that opportunity if you could?

Play a different kind of Ask Me Three Questions with your staff or students. Allow them to think deeply about their answers, to come up with solutions, and to realize they have the power to change things.