

# Share Better and Stress Less

A Guide to Thinking Ecologically  
about Social Media



Whitney Phillips and  
Ryan Milner



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and Stress Less**





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 **MIT**TeenPress

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To Steve, for everything you've taught,  
shared, and given





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## INTRODUCTION

# Ecological Thinking and You

**WHITNEY:** There we were, exploring a place we'll call Redwood Adventure Park, a nature attraction in Northern California. It was 2003, and my parents and teenage brother and sister were visiting during my first year of college. We'd decided to drive along the coast and visit every Highway 101 pit stop we could find. Road sign after road sign pointed us to this particular adventure, so five twenty-dollar tickets later, we were in weird redwood heaven. Wooden placards gave background stories on all the trees, and there were carved stumps—of woodland creatures, loggers, and Bigfoot—everywhere. A few months earlier, I'd given myself a buzz cut and dyed my naturally blondish hair black for "I'll show you, world" reasons. It had grown out into an unruly mullet and was flopping around mop-like as I scampered among the living and carved-up trees, giggling at what could only be described as forest clickbait.

After wandering the park's crisscrossing trails, we decided to head over to the forest ridge lookout for a bird's-eye view of the canopy. At the top of a seemingly endless flight of stairs, a worker wearing head-to-toe pink camouflage ushered us onto the viewing platform, gestured around dramatically, and told us in a hushed voice that on one side we'd see the ocean and on the other, "the Awesomeness," which I think just meant more trees.

But before we could climb to the top, my sister needed to finish drinking her hot chocolate. "Kay, ready," she said when she was finished. She handed her empty cup to my mom, who held it for a moment. Then, looking right at my sister, my mom threw the cup smack on the ground. We all paused. Gasp! Why would she do

such a thing? And then my mom started laughing. She bent down to pick up the cup. “The look on your faces!” she said, still laughing. We all started laughing too, and then, of course, as soon as we saw a trash can, she threw the cup away.

This was funny because, for one thing, it was so unexpected. I’d never seen my mom litter in my whole life. It was also funny because it was exactly what you’re not supposed to do at a park. If you did, you’d have to walk around in your own mess. Other people would have to walk around in it too, and some of them might get the idea that *hey, fun, it’s fine to throw trash here*, making it more likely that more people would throw their trash wherever. From there, it could end up in a river or be swallowed by a goose. The moral of the story, said in my best judgmental Bigfoot voice, is that throwing your trash on the ground when you’re at a park doesn’t just impact you. It impacts others as well, Mom.

**RYAN:** Trash, or at least stuff you don’t want to have to walk through, is a theme in this book. But instead of actual dirty cups on the ground, we’re focused on **information pollution**.

Here’s an example from one of my communication classes. I live in Charleston, South Carolina, and we get a lot of hurricanes. That means a lot of rain. After Hurricane Matthew flooded parts of the city in 2016, one of my students brought in a picture of a shark swimming around in someone’s front yard. He was showing it to other students before class, telling us all to watch out for sharks if we were walking through flooded streets. As the old-man media professor and multiple-hurricane survivor in the room, I had the sad duty of telling my student that his shark picture was an obvious fake; I’d seen it passed around the internet for *years*. The real reason

not to splash around in urban floodwater, I explained, is that it comes up from the sewer. And sewer water is treacherous enough without sharks sloshing through it. My student glared at me and then at his phone and then sat down. “But my friend *sent* this to me,” he insisted. And maybe his friend was just trying to be helpful. That still does not a yard shark make.

**WHITNEY:** Here’s another example a student shared in one of my media literacy classes. This student had a close girlfriend group, and they were constantly posting photos to Instagram of parties and other college whatnot. One friend only posted photos where she looked good, even if the other friends in the pictures were sneezing or seemed constipated, which the rest of the group noticed and giggled about among themselves but never mentioned to their friend.

One day, the friend posted a group photo to Instagram that she’d photoshopped to make herself look thinner. The whole image—and her friends’ bodies—had been distorted as a result, making her edit and her motives, let’s say, obvious. My student had been in that picture and admitted to downloading it and sending it to her other girlfriends over group chat. They thought it was hilarious. So hilarious, in fact, that someone in the chat also downloaded the image and posted it to another chat, which made that group laugh too, until eventually the image circulated back to the friend who’d posted it. She was horrified to find out that everyone had been laughing at her behind her back, and her friends were horrified to realize how upset she was. Even though they didn’t mean any harm, the entire friend group had to deal with the fallout.

**RYAN:** Both stories are examples of information pollution, which can take the form of **polluted** information and **polluting** information. In the yard-shark story, the information is polluted. This is the more obvious type of information pollution, and you may have heard it described as misinformation (false or misleading information spread by accident) or disinformation (false or misleading information spread on purpose). When talking about mis- and disinformation, a person's motives for sharing matter; you need to know why someone shared something to accurately describe it. Polluted information, on the other hand, *doesn't* need you to know whether something was spread on purpose or by accident. It all ends up in the same goose.

**WHITNEY:** My student's thinstagram story includes some polluted information; the photoshopped image misrepresented their friend's body. But the friends' *sharing* of the image, which they did for fun and definitely not to lie to anybody, is an example of polluting information. This is a more subtle category of slop, as it describes information that might be cross-your-heart true or totally well-intentioned but can still have a toxic effect on big stuff like news stories, smaller stuff like group chats, and personal stuff like your emotional well-being. Even an image that isn't photoshopped, but instead just captures people in unflattering poses, could be polluting if it makes the photo's subjects feel terrible about themselves.

**RYAN:** The pollution concept is helpful in these cases because it directs attention to how information impacts the landscape, regardless of what the information was meant to do and what someone meant for it to mean. As we'll see throughout the book, those intentions matter much less than what ends up happening as a result.

**WHITNEY:** Thinking about the effects of information pollution also helps focus attention on the people who are most often harmed by it. This lines up with an idea known as **environmental justice**. For decades, researchers have shown how Black people, Indigenous people, and people of color are more likely than white people to have their air, water, and surrounding environment polluted. Just by living their lives, they're at greater risk of being poisoned.

The same basic thing is true online. People who belong to marginalized groups—which means that they face unique forms of disrespect, discrimination, and danger—are flooded with pollution in ways that others are not. Whether it's because of their race or religion or gender identity, these groups have to deal with false claims about their lives, harmful stereotypes stated as unquestionable fact, and constant violent attacks simply because of who they are. In a 2020 Pew Research Center survey, for example, many more Black and Latinx people than white people said they were harassed online because of their race, many more women than men said they were harassed because of their gender, and many more lesbian, gay, and bisexual people than straight people said they were harassed because of their sexual orientation.

This research lines up with other studies of online abuse, including a 2018 Amnesty International analysis of Twitter showing that Black women were 84 percent more likely than white women to be targeted by abusive tweets. A 2016 Data & Society report also found that racial and sexual minorities were more likely to self-censor out of fear that they would be harassed. Trans people face especially vicious harassment online; in a 2019 study, anti-bullying organization Ditch the Label and analytics company Brandwatch analyzed ten million social media posts about trans issues and found that 15 percent of all trans-related comments from 2016

through 2019 were violent and dehumanizing. If you're a cisgender reader, imagine if 15 percent of all the posts and comments made about you online were that hateful.

Using the term *pollution*, whether the information is polluted or polluting, reminds us that information isn't some abstract thing "just" on the internet. Online information can do real damage to people's bodies and offline lives—damage that some people have to deal with much more often than others.

**RYAN:** Although certain groups face increased pollution risks, having to navigate tons of sewer water online can be difficult for everyone. We've both been teaching classes about the internet for over a decade, and without a doubt, all the bad, weird, and hurtful information hurricaning around seriously stresses our students out. There's lots of fun stuff online too, of course, but when pollution spreads, students describe feeling anxious and worried and torn between fear of missing out and fear of being present. We see this in class discussions and also in our students' stories about their everyday online lives, often with a lot more consequence than believing in yard sharks. Our students aren't the only ones who worry, either. So many of the conversations we've had with friends and family and journalists center on how bad social media can make us feel.

**WHITNEY:** All this pollution isn't just stressful for individuals. It's also terrible for democracy, for one pretty important reason: democracy requires citizens to accept the same basic set of facts. Thanks to pollution, pollution everywhere, that's not always possible. Especially when it comes to things like a global pandemic, we all *need* to have the same basic set of facts. Having some people

totally steeped in polluted information, but totally convinced that the sludge they're covered in is actually crystal-clear air and water, can be a real problem. It's also a real problem for all the other major offline issues we're facing around the globe, from the climate crisis to various refugee crises to the rise of nationalism and authoritarianism. When the information landscape is a mess, good luck trying to solve all the other messes, since solutions require citizens to have access to—and trust in—good information.

**RYAN:** In other words, information pollution is a big, collective problem. But it isn't just collective in the sense that it splashes all over the place, as a social justice issue and a political issue and an everyday well-being issue. It's also collective in the sense that we all *contribute* to it; we all do our fair share of splashing.

It's easier to understand how this works offline, so we'll start there. In our neighborhoods and in nature, the worst polluters are the ones who deliberately pollute, who do things like dump big barrels of toxic slime into a lake.

**WHITNEY:** Or who fling a million coffee cups into a pile in the middle of a forest.

**RYAN:** That would be bad and also nonsense. But the worst polluters aren't the only people generating pollution. Even people who don't try to pollute can cast off all kinds of muck and grime. For example, Whitney and I don't wake up in the morning looking for ways to destroy the environment. But we still pollute simply by going about our business.

**WHITNEY:** Just say "using the toilet," Ryan.

**RYAN:** That's only one example of what I mean! We also impact the environment when we wash our hair, drive our cars, or use plastic baggies to clean up after our dogs. People typically don't consider those kinds of things polluting because they don't *mean* to pollute. Still, the pollution flows, with all kinds of environmental consequences we can't see.

This is also true online. The most obvious problems and biggest polluters are the people who spew lies to their millions of followers, organize social media harassment campaigns, and post conspiracy theory after conspiracy theory. Those are huge sources of pollution, but they're not the only places it can flow from. Pollution also has fun, seemingly harmless sources, like group chats with your friends.

I can speak from experience here, since my oldest daughter, Sophia, is a teenager and she and her friends spend a *lot* of time in their group chats sharing jokes and gossip and memes that would make a yard shark blush. Like millions of other people in millions of other group chats, they're just talking and being silly, but pretty nasty toxins can flow through these kinds of everyday channels too. The fact that there are so many group chats, and so many people sharing so much stuff, means that when pollution enters our networks, it can really add up.

On the other hand, when we're more aware of hidden pollution and how we can absolutely pollute even when we don't mean to, we're in a better position to stop, reflect, and adjust what we were going to say. Maybe we can avoid hurting a friend's feelings. Maybe we can avoid making things worse for someone being bullied. Maybe the consequences are less clear than that, like if we simply avoid tossing this little bit or that little bit of pollution into the Redwood Adventure Park of our online networks. These things

might feel small, but they can make a big difference in someone's day and maybe their life.

**WHITNEY:** We can only do so much individually, though. The entire business model of industrial-grade polluters is to pump out bad information, creating the perfect environmental conditions for out-of-control toxicity. You cutting back on your yard-shark sharing isn't going to fix that.

**RYAN:** That's a tightrope we'll walk throughout this book. We have to acknowledge and deal with the cultural, economic, and political forces that cause so many of our problems. At the same time, we can't limit our focus to what's totally out of our control. There *are* things we have some control over. There *are* some things we can do. Remembering what those things are can help us avoid accidentally feeding into supersized pollution. And when the pollution is yard-shark-sized, remembering how easily pollution spreads, and how easily we can spread it, is good practice for when the pollution is more expansive and toxic.

**WHITNEY:** That's the kind of practice this book will give you. We'll show you how to identify pollution risks, minimize the bad stuff you're putting into the online environment, and maximize the good stuff you're putting into the online environment. By the end of the book, you'll have lots of tools to help you do your part to keep your spaces healthier for yourself and for others.

**RYAN:** We got to this kind of thinking after years and years of focusing on the internet + politics + media stuff, always under a big question mark about what to do when online interactions are

creative and fun and, at the same time, destructive and harmful.

The thing we've learned is that we're all, very literally, in this together. What we each do affects other people in good and bad, big and small ways. So we have to keep ideas of connection, consequence, and shared responsibility at the front of our minds. Throughout the book, we'll be drawing from our research, teaching, and everyday lives to illustrate how to do this when trying to make sense of the often confusing, always hyperconnected online world.

**WHITNEY:** That *hyper* part is key here, since we're not talking about connection in abstract or daydreamy ways (although personally I like talking in abstract and daydreamy ways). Our connections online are always moving, always evolving, and always threatening to transform the smallest things into enormous things.

**RYAN:** For us, the key to navigating all these twists and turns is **ecological thinking**. By *ecological*, we're not talking about the actual land and trees and sky. Instead, it's an orientation to the world—online and off—that foregrounds the dense interconnections between yourself, other people, and the living and nonliving things that exist within the spaces we share. Environmental scholar Timothy Morton says something similar as he traces the connections that make up the natural world—connections, he says, that are tangled up with our human world too.

**WHITNEY:** By reflecting on everything we're connected with on social media, we can figure out where we're standing within our networks. From there, we can zoom out, way out, from the technologies we're using, friends we're talking to, and audiences we're

aware of to anticipate downstream consequences: the unexpected effects of our sharing, which we can only appreciate when we have a wider perspective. Zooming out also helps us understand how and why polluted information filters through the ecosystem to get to us, and where it might continue flowing if we choose to spread it.

**RYAN:** Astronauts have described a similar perspective shift, though on a much grander scale. After they see Earth from outer space, many have spoken about a newfound sense of care, concern, and responsibility for the planet as a whole. This shift in perspective is called the overview effect. The book you're holding in your hands can't rocket you to outer space, and we're sorry for that, but it can help you imagine the world in new, zoomed-out ways.

**WHITNEY:** What we realize when we take a broader perspective is that "all flourishing is mutual." This is a quote from environmental biologist Robin Wall Kimmerer. To illustrate this idea, she talks about the relationship between beans, corn, and squash. When all three are planted together, each contributes to what Kimmerer calls an "organic symmetry" that allows each individual plant to thrive. The corn provides a structure that the beans can climb for more sun. The beans return the favor by adding much-needed nitrogen to the soil, fertilizing the corn and squash. The squash grows at the base of the corn and beans, keeping the soil shaded and moist. All three plants thrive when all three plants thrive; when one of them doesn't, neither do the others.

**RYAN:** You've probably seen examples of mutual flourishing in your own life. When you're working on a group project and everyone is helping, your grades tend to be higher. Or when everyone's being

chill in the group chat, your mood tends to improve. The opposite is also true. When there's bullying at your school, it's usually not just the person being bullied who ends up hurt. On social media, harmful stuff quickly becomes everyone's problem.

**WHITNEY:** We'll explore the consequences of connection, both good and bad, throughout the book. But before we jump into some exciting time travel to set the stage (we're not done with you yet, Redwood Adventure Park), let's take a quick moment to get a feel for what we hope this book inspires. Begin by imagining your favorite outdoor place. Maybe it's a national park you've visited with your family. Maybe it's a park down the street from your house. Maybe it's somewhere you've never actually been but have read about or seen on TV. For me, it's the Community Forest in Arcata, California, home of my undergraduate alma mater, Cal Poly Humboldt, where the redwoods meet the Pacific Ocean. I never feel happier than when I'm walking those trails.

**RYAN:** And for me, it's Folly Beach County Park, in South Carolina, right on the Atlantic. When you get to the park, you see wide-open ocean rolling on one side and serene saltwater marshland swaying on the other. The sight of both at once, especially as the sun sets above the marsh, stops me in my tracks every time.

**WHITNEY:** Whatever place you choose, imagine it on a perfect summer day. The air is sweet, everything is alive, and you're warm and safe and happy. There are people all around you who are happy too, having a picnic or running around or simply walking by without worries. That's the feeling we want to encourage—

that you're grounded somewhere you care about, surrounded by people you want to do right by. The internet can be an enormously stressful, sometimes very strange place. But it helps to remember the world we want to live in, and to do what we can to make it like that for others and for ourselves—because as you're about to learn, *others* and *ourselves* are always connected.

## A CASE STUDY

# Redwood Adventure Park 2.0

**Ecological thinking helps us** understand the connections among our technologies, our networks, and one another. To show how, in this book we'll follow the day-to-day experiences of a recurring cast of characters who, like many of you, have to deal with the stressors, controversies, and of course jokes gone wrong at and around their middle school. Whitney's Redwood Adventure Park story will be our jumping-off point—but not the cup-throwing story from 2003. This version of the story takes Whitney's family road trip and time-machines it into today's social media era. Whitney is still in college; her sister Hilary is still sixteen; and her brother, David—whose middle school is central to all the book's stories—is still thirteen. Her mom, of course, is still an unrepentant cup-thrower. We'll let fictional college-age Whitney take it from here:

*So, OK, there we were at Redwood Adventure Park aka Redwoods on Mars, when randomly my mom throws my sister's hot-chocolate cup on the ground. We were like what!? It was the weirdest day. And not just because of "the Awesomeness," nope, it started before that even, when one of the people who worked there told us about the mom and baby Bigfoot he saw that week (sure) and that they stunk up the forest with their urine perfume (gross). David believed him and had been trying to film a Peefoot in the woods behind us right as my mom threw the cup. So he got the whole thing on video. He edited it down and posted it to his friends'*

group chat, and they all thought it was pretty funny.

Clint (*I love that kid*) was at the grocery store with his dad when he saw it, and they re-created the cup-throwing with a cup from *I don't know where*, the deli maybe, which Clint then posted to the group chat too. And then Kyle (*I hmm-face emoji that kid*) set Clint's clip to music and posted it to TikTok.

And that's when the trouble started. Because just before David posted the cup-throwing clip, his friend Stacy (*I call her Stessy because YOU WOULD KNOW WHY if you met her*) had posted something to the group chat about how her dog needed to be put to sleep, which is legit sad. But David didn't know that because he was busy trying to film a Pee-foot and doesn't really pay attention to things anyway. So he hadn't scrolled up, blah blah. Still, it was LOL LOL WHAT when David apparently responded to this super sad news with a video of my mom throwing a cup. Like was he saying the dog was like a piece of trash? Was he saying it wasn't worth being sad about? Either way, it made people laugh because it was so random and also terrible.

Stessy lives on the dramatic side of life, but in this case I get it. Not only did she think David was laughing about her dog (which would have been *THE WORST* if he was), but suddenly everyone in the chat was talking about my mom defiling the redwoods with that cup instead of Stessy's news. So Stessy starts a new chat without David, calling him a troll, and a bunch of people end up responding, some defending David and some being like, yeah, he's definitely a troll because they didn't want Stessy to yell at them too.

*And David's totally oblivious to this. Like at that exact moment we're laughing and laughing about the Awesomeness (which is literally just trees). Clint felt bad because he also responded with a cup thing, and he KNEW about the dog, so he screencapped some of the stuff Stessy was saying. But he didn't explain about the dog. He just sent the meanest comments, which David got right as we were heading back to the car. So then we had to deal with all that suddenly, yay.*



# Feeling Better So We Can Share Better



**When people talk** about the environment, they generally mean what's outside and separate from the people who live, work, or play within it. But the line between inside and outside is actually a lot blurrier than we might think. The stuff that happens inside, like a furnace generating a lot of ashy smoke, impacts what happens outside, like air quality. The stuff that happens outside, like a big storm, impacts what happens inside, like power outages. Social media aren't any different, which is the topic of this chapter: how our overall well-being (what's *in here*, which Whitney identifies by pointing dramatically from her head to her toes) influences what we're sharing on social media (what's *out there*, which Ryan identifies by pointing dramatically up, down, and all around his screens). It might seem strange at first, but to make sure we're sharing in the best and most careful ways possible, we need to take care of ourselves and of others—and to understand how stress can complicate things for everyone.

## Pollution Chain Reactions

Research on stress and social media helps explain the link between feeling and sharing. This work shows that our screens can be draining, like a reverse battery recharge for our minds. We feel bad when our batteries are drained, and that's bad enough. Even worse, though, evidence suggests that when we're overwhelmed and exhausted on social media, we're more likely to spread information pollution. For example, computer scientist Najmul Islam and his team found that people experiencing social media fatigue tended to share more false stories about the COVID-19 pandemic.

We've observed the same pattern in our students, particularly related to doomscrolling. Journalist Karen Ho uses this term to describe how people scroll and scroll and scroll through bad news, fear, and outrage in their feeds, despite how terrible all that scrolling through all that negativity makes them feel. As students in both our classes have explained, doomscrolling and knee-jerk sharing often go hand in hand. The more students glue themselves to their devices, they report, the more they tend to get swept up in angry, fearful, or conspiratorial reactions. And the more they do that, the more they experience anxiety and depression, trouble sleeping, and a dip in their overall well-being. So why do they keep doing it? Because, they tell us, at least those panicked reposts and retweets make them feel like they're doing *something*.

**WHITNEY:** Here's a front-row-seat classroom example. The semester the COVID-19 pandemic hit, I was teaching a media literacy course. As rumors about the virus and potential campus shutdown spread, our discussions centered on what students were encountering on

social media and how they were responding. One student admitted to doomscrolling as a day job and lamented how little information she was getting from official sources. “If you’re not going to give me information,” she said, “I’m going to take what I have and run with it. Even if something is just a possibility, I’m still going to share it. I want people to know.” This student was channeling her frustrations and fears into action—even though she knew, deep down, that the information might not be accurate. In her mind, that was still better than saying nothing. We’ve heard similar things from our families and our colleagues and—gasp—have even observed this impulse in ourselves.

**RYAN:** We sure have. During fall 2020, I was at max stress. COVID-19 was raging and so was the presidential election, and I was mostly stuck in my home without much to do but teach my Zoom classes and worry. So a lot of afternoons, I’d melt into the couch to check in with Twitter, panic over what I was seeing, then text my brother the most upsetting posts. More than a few times I needed to text him a correction not long after hitting send because I had missed some details or context—like when I sent him pictures of the post office supposedly removing public mailboxes to make it harder for people to vote by mail. In reality, the mailboxes were being switched out for routine maintenance. But just like Whitney’s student said, sharing the bad news (or what I thought was the bad news) made me feel less helpless, at least for a moment. After that moment, I could see that I hadn’t been helping anyone.

Social media stress is, of course, specific to social media. But anyone who has been really tired or hungry or overwhelmed has probably had similar kinds of offline experiences. This is

standard brain stuff, as neuroscientist Amishi Jha explains. When we feel frazzled and our heads are full of stormy thoughts, our attention—exactly what we need for evaluating information and making careful choices—is significantly weakened. We also lose the ability to regulate our emotions. We simply don't have the cognitive fuel. So when stress goes up, we're much more likely to do something we end up regretting, like snapping at our parents or friends or yelling at the animals we live with because UGH EVERYTHING.

Whether they happen online or offline, stress reactions are powered by our limbic brain, also described as the lizard brain. In terms of human evolution, the lizard brain is the oldest part of our brain and is responsible for assessing threats and keeping us safe. When the lizard brain perceives danger, it starts yelling: *THREAT THREAT THREAT! This is wrong! We gotta do something!* And suddenly we're fighting, fleeing, or freezing (or posting).

Sometimes our lizard brain is right: we really are in danger and need to react immediately, like by jumping out of the way of an oncoming car. But the lizard brain, whose entire job is to scan for threats, has the tendency to be a wee bit overactive and often sees threats when there aren't any.

No matter how right or wrong it is, our lizard brain is doing its best and is trying to help us—it's our greatest, most loyal protector. But as focused as it is on being our personal guardian, it can also limit us to a super zoomed-in view. All we're aware of is *THREAT THREAT THREAT*. As Whitney's student explained, and as Ryan admitted, fight-flight-freeze reactions might feel right in the moment but tend not to solve underlying problems. They can even make things worse—because

fighting-fleeing-freezing isn't a plan; our lizard brain isn't thinking about the future. It's only thinking about the immediate threat, or what it believes is a threat, and how it can punch its way out. Or hide.

Online, the lizard brain easily sets us up for a **pollution chain reaction**, which goes a little something like this: We're overwhelmed and post or say something from a fight-flight-freeze place. This ends up polluting other chats or feeds, either because the information is false or misleading or because the information is simply stressful—there's too much of it, or it doesn't line up with the signals others are sending us. However it's generated, our pollution contributes to others' tired frazzle, which increases the likelihood that their own guard lizard will start sharing, raising the group's pollution levels even more, raising people's stress even more, looping back to the start of the cycle. Eek.

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**REFLECTION** Think of a time that you've been part of a pollution chain reaction. How did it get started? Did you fight, flee, or freeze? What did the people around you do?

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To illustrate, here's a Redwood Adventure Park spinoff story about Neev, one of David and Stacy's classmates. He's doing his best to respond to several friends at once, but it's hard to keep track of everything. There's controversy over the cup-throwing video, a fight over a prank related to their teacher's beloved goat, Tabitha, and blowback from racist graffiti at their school (we'll explain how it all connects). Needless to say, Neev is feeling pretty lizard-brained.

*Neev makes a face at his phone. What is Stacy even talking about? Something about her dog? That's terrible, but what about David? And a cup? The all-caps energy of her fifteen texts is strong. But about what? Neev does his best to keep up.*

Stacy: and i was like stop trolling david

Neev: Who was trolling David

Stacy: no dabvid was trolling

Stacy: DAVID IS ALWAYS TROLLING

Neev: With a cup?

Stacy: THAT WAS HIM TROLLING

Stacy: OMG

Neev: ?

Stacy: this isnt funny

*Neev is definitely not laughing. Then Jake messages about the school's latest controversy: somebody wrote racist messages on their friend Sara's locker. In response, Jake and Sara organized student protests every day this week, and Principal Smith was NOT happy. Jake asks if Neev has seen the principal's latest Facebook post about it. Neev says no, so Jake explains that it was all about needing to come together as one happy family and how the school would*

*respond to \*all\* disturbances to campus, dramatic music. Like as a vague threat, like students saying the school needs to do something about the racist graffiti is as bad as the racist graffiti?*

*Neev responds with a keyboard smash and sits down at his laptop to look for the principal's Facebook post. And sure enough, there's Old Baldy wagging his fingers at the students protesting the racist graffiti, which he didn't wag so much when the graffiti was there, but OK.*

*Stacy keeps messaging, though now it's shifted to iMessage. She's . . . everywhere.*

Stacy: i'm sooooo mad

Neev: im sorry

Stacy: and clint was like he didn't mean anything it was just a cup joke

Stacy: THATS CALLED TROLLING CLINT

Neev: wait he was trolling clint

Stacy: NEEV

*Before Neev has a chance to respond, not that he wants to, the algebra group chat pings. There had been commotion earlier between third block and fourth block after Mrs. Bishop told another story about her goat, Tabitha, in class. She was constantly talking about that goat, and every time she did, students would go into meme-making*

*hyperdrive. This time, though, it wasn't just memes. Norah started impersonating the goat in the main chat, and Orin and Kyle plus a few others in third block thought it would be funny for people to pretend like they believed it was actually Tabitha. Clint had texted Neev with a screencap of the plan, which Neev thought was the most Orin-sounding scheme he'd ever heard.*

*Norah adds another goat joke to the algebra group chat just as Stacy jumps back into their chat. Neev's iMessage looks like a pinball game.*

Stacy: do u think it's ok to throw a cup a dog

Stacy: ???????

*Neev clicks back to the fourth-block group chat. For people who constantly complained about Mrs. Bishop's goat stories, they sure never stopped talking about goats. Then another message from Jake. The principal is dragging Jake and Sara to his office?*

*Neev wants to show his support but isn't sure what to say; it's all so serious. So he doesn't respond. Meanwhile, the algebra group chat keeps pinging, goats and goats and goats. Norah says that Neev was in the other chat too (which one? Neev can't keep it straight) and was laughing (he was?) and what did he think. What did he think? Another message from Stacy comes in, but Neev doesn't read it. Too many words.*

*"I think people in third block are a-holes," he types. His face gets hot. Why did he say that? He quickly adds a "jk," then closes his laptop.*

Neev is juggling multiple threads with multiple issues. Together, they're enough to push him into overwhelm. As his lizard brain kicks into high gear, Neev freezes with Stacy, flees from Jake's troubles, and fights with the algebra-class group chat. In every case, his reactions risk adding to everyone else's piles of sludge.

In this case and so many others, the problem isn't the information itself. The problem is the lizard brain's fight-flight-freeze reactivity, which zooms us in on the thing right in front of us. In the process, we tend to lose track of what caused what, how important certain problems are, and what the most helpful response might be. When that happens, our actions—however good our intentions are and however justified we might feel—are more likely to backfire. It's a pollution chain reaction just waiting to happen.

### **Taking Care, Gaining Perspective**

There's one solution to the kind of reactivity Neev is experiencing, and that's perspective. Perspective allows us to identify causes, evaluate how big a deal something really is, and make thoughtful choices that consider other people's feelings and circumstances. This is much easier said than done, of course. Once the lizard brain grabs us by the feet, it's very hard to kick ourselves free. The question is, when that happens, what can we do to zoom back out?

The first step is to pay close attention to our body, which sends all kinds of helpful signals that we're becoming reactive. This is our sympathetic nervous system at work, which sounds like it should be nice but, according to *Harvard Health*, is the "gas pedal" for the lizard brain's fight-flight-freeze response. The sudden surge in stress hormones results in an increased

heart rate and rapid breathing; other symptoms can include a tight chest, a lump in our throat, a hot face, and sweating.

Often, we shift into lizard mode before we realize it's happening. This is a pretty neat feature of our nervous system, since true threats, like the oncoming car we mentioned, tend to come out of nowhere. In these cases, our physical reactions need to be faster than our mental awareness. But the speed at which this happens can also make it difficult to notice that we've become reactive when we're not faced with a life-or-death threat. It can take someone accusing us of being snappy to know we're feeling snappy, and even then, we might get irritated that they're suggesting we're irritated!

This is why it's important to focus on what our body is doing. If suddenly our heart rate goes up, our face gets hot, and we start to sweat, that's our cue to go check the front door, because it's very likely that our lizard brain will be waiting for us, velociraptor grin wide, holding a pie.

Once we realize our sympathetic nervous system is in overdrive, we can keep stress responses in check by activating its calmer twin, the parasympathetic nervous system. If the sympathetic nervous system is a gas pedal, the parasympathetic nervous system is a set of brakes—it slows down the fight-flight-freeze response. Long deep breaths from your belly are a simple but effective way to pump the brakes, and there are lots of other strategies too; you can experiment to see what works best. Other possibilities include repeating a calming phrase, praying, or doing a quick body scan (where you pay attention to different points on your body starting with your feet to the top of your head)—whatever feels most soothing. And it doesn't need to take a hundred hours, either—a few minutes of taking