ERIC JENSEN

TEACHING WITH *poverty* *and* *equity* IN MIND

SUCCEED WITH THE STUDENTS WHO NEED YOU MOST

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TEACHING WITH poverty and equity IN MIND

Preface

More than a decade ago, I wrote a book called *Teaching with Poverty in Mind: What Being Poor Does to Kids' Brains and What Schools Can Do About It.* Why have I decided to follow up with this new volume, expanding on the subject of supporting students who live in poverty? For you to understand it better, you'll want to read a brief (and true) story about a kid. This young boy's life changed at age 2, when his mom walked out. Tears gushed liquid pain down his face. Divorce is always tough on children, and the boy felt like he had just been hit by a bus. Unfortunately, his father had no idea how to raise his three kids. Four years of "take any babysitter you can find" (some of them would have been arrested in today's world) motivated his dad to remarry for the first of three times.

This boy's first stepmother was violent, alcoholic, and abusive. Without hesitation, his oldest sister found safety living with the next-door neighbors for seven years. His other sister moved into the garage, where she lived with no bathroom.

The stepmother made life a living hell for her new stepchildren. This kid never, ever went into the kitchen when she was there, because that's where the knives were kept. Marital fights were common, and so was broken glass and blood.

The boy's father felt trapped in a bad marriage. He worked during the day, then was off to night school, and added weekends with the National Guard. The boy was often locked out of his own house, and he snacked from a bag of Purina dry dog food in the garage between

meals. From 2nd through 10th grade, his daily mindset at home and at school was "Just one more day. I can do this."

To help him escape his hellish home and get away to safety, his dad moved him (with his "garage" sister) out of the house. He lived with his uncle (and attended a new school), then with his grandmother (attending another school), and then independently (at yet another school). After each move away, his unstable stepmother would promise to "be good," and they would move back home. The cycle of violence repeated itself again and again. Moving around was the norm, not the exception; this kid went to three elementary schools, four middle schools, and two high schools (nine total schools and 66 teachers).

This kid was never taught social-emotional skills, and because he was never at any school long enough, he developed few friendships. Neither his father nor his stepmother ever said "I love you" or gave him a hug. Trust me, that really messes up a kid.

He was often truant and sent to the office for discipline issues. Why? In class, this kid usually sat in the back making wisecracks, feeling stressed, and wondering, "What is it going to be like when I get home? Will I get hurt again?" For him, home was unsafe and a source of chronic stress. I would guess that most of his teachers were pretty sure he was going nowhere and would amount to nothing.

Yet somehow, all of this felt "normal." Why? His peers were experiencing the same thing. He had three friends, and two of them had abusive fathers. By age 20, he had been arrested twice and had almost dropped out of school.

Maybe you're asking, "Is there a point to this story? Why are you telling me about this kid's upbringing?"

The kid I have been describing was myself. In the widely publicized Adverse Childhood Experiences (ACE) survey, nearly half of all school-age kids in America have at least one childhood risk factor (e.g., divorce, abuse, drugs, parental incarceration, alcohol, mental illness). When you have four or more adverse childhood experiences, you pass a threshold for being at a particularly high risk of adverse physical and

mental health outcomes (Felliti et al., 1998). I can check *seven* factors (out of ten). I don't expect sympathy, credit, or blame. I didn't choose my parents, my neighborhood, my DNA, or my upbringing. It is what it is: crappy luck.

I am also not telling you I grew up in poverty; *I didn't.* My story is relevant because I do know (firsthand) a bit about growing up with adversity. I also grew up with white privilege, meaning I never experienced racism and daily microaggressions based on my ethnicity. There was no generational or historical trauma in my world, as many people of color experience.

If you're wondering how my two older sisters turned out, they struggled. Between them, they've had four marriages and four divorces. Two children were abandoned; both sisters have often been depressed; one contemplated suicide. They have lived in poverty much of their lives. I have seen firsthand the impact of their adverse childhood experiences.

It took me 25 long years (starting after high school) to turn my life around. Can I take credit for that? Yes and no. I was lucky enough to meet high-quality adults who became my role models. That helped me pivot and change my life.

I also had to go head-to-head with my own attachment disorder, antisocial personality disorder, attention deficit disorder, physical trauma, and chronic stress. I had to learn how to be around people, to trust them, and to quit lying. Over time, I learned social skills, emotional skills, and self-worth. Once I started to work on myself, making a living and having a life became easier for me. With tools, I had hope.

I could not have written this book any earlier in my life. There is so much I simply did not know when I wrote *Teaching with Poverty in Mind* in 2009, and I had not dealt with the trauma and healed myself enough to write this book. I still have much to learn, and I am growing every year. As soon as I feel like I have risen to a new plateau, I become humbled again. As the book moves forward, I'll walk you though my growth.

I often share a message with teachers and students I work with: "Life's not fair, but you *always* have a choice." You have choices in the

jobs you interview for, the job you accept, the attitude you bring to work, the decisions you make at work, the people you call friends, the foods you eat, whether you do or don't have children, the person who becomes your partner, and how you spend your time on this planet.

At work, you choose whether you greet students with a smile and warmth every day or not. You choose whether you are an ally or an adversary to your students. You choose whether you work on yourself daily or stay the same. The teachers who are perceived by students as adversaries usually dislike their jobs. The teachers who believe in their students, support them, and have faith in them are perceived as allies. Yes, luck does play a part in life, but your choices do, too. You do have a choice. Every day.

Now, you may say to me, "Eric, you are privileged and have no idea what it's like living on a teacher's salary." Actually, I do know. First, I taught middle and high school in San Diego for seven years (wages under $15,000 per year). And here's a memo: San Diego was (and is) a very expensive city. But I simply made the decision to live cheaply. For seven years, I never paid more than $50 a month for housing. I lived in a laundry room for two years, paying just $25 a month. In college, I had a food budget contest with my college roommate. I won it, spending just under $14 ... for a month of food! (Yes, I ate mostly oatmeal and potatoes.) I was a caretaker for a professor's property for five years and lived in a 15-foot travel trailer for $50 a month. My point is, *you would be surprised at what you can do.* It may be better than you think you can do. You always have a choice.

Over the years, I have faced many of the same demons that I am asking you to face. I struggled with my identity, the stories I chose to share, my implicit biases, my lack of self-care, and the difficulty of setting an intention for each day. In this book, you'll learn how I grappled with these challenges and came to deal with them.

This book is about how you might approach and succeed with students from adversity. The next time you have a kid in your class who appears unmotivated or is acting out, remember this: *I WAS one*

of those kids, and I took it personally when a teacher judged me and refused to help me succeed. Never wait for a kid to show potential; they all have it.

I have continued on a path of growth since I wrote *Teaching with Poverty in Mind,* and I'll never stop. This new book has different points of view, stronger evidence, and a wider perspective on the issues. This book will show you why and how you can love your job. I am also hoping that as you read this book, you'll enjoy learning how to foster *a better version of you.*

Introduction

This book may be unsettling for you. You'll be addressed as if you're sitting right across from me and we're having a conversation.

We are going to start with a lie.

The lie is one of the most damaging, inexcusable, and widespread lies of the last 100 years. The lie has ruined millions of lives. The lie has cost our economy trillions of dollars. This lie has changed the course of education, and hence America's economy, social structure, and culture.

You have been told many lies as an educator. It's time to set the record straight. Because when you become more aware of what's hurting you and your students, you'll likely choose to grow, change, and get better results in the classroom. Or, you'll quit. That halfway in-between zone is not going to make it for you anymore.

Here's the lie: "All students deserve a high-quality public school education." As a nation, we superficially espouse this lofty ideal—and then fail to back it up with better pay for our teachers, reliable funding, realistic policies, and action. We can get rah-rah about meritocracy, hard work, and earning your way "up the ladder," but this lack of follow-up on our supposed values has become comfortably accepted by too many.

Countless students have been misled about opportunities and subjected to lower expectations. Many have found that their culture is unwelcome at school, have faced discrimination, and have been

excluded from gifted classes. Millions of students of color have been assigned less-skilled, less-experienced, and undertrained teachers, often with a temporary certification. Innumerable students from poverty have been steered away from challenging or lucrative career opportunities because of perceptions of weaker character or intelligence.

Most of us in education are guilty. The good news is that times are changing. I am hoping you are reading this book because you are considering being part of the change. But why change, and why change now?

When teachers succeed with middle-income and upper-income students, they will assign a *positive impact* to their role. In fact, in surveys, most teachers say they are doing a "pretty good job." They believe they work hard to help their students succeed, and sharing credit for that success seems justified. Who could blame them?

But what happens when you ask teachers about the *negative impact* of their role in a school with students from poverty? There is rarely a self-assigned responsibility for disparities in academic outcomes. Instead, most teachers have a narrative to explain students' lack of academic success. Many teachers use "code speak" to describe why their proficiency scores, engagement responses, and discipline numbers are lower with poor students. Some teachers will play the sympathy card: "Bless their hearts. They come from poor families; you can just guess what that's like." Many use the character card: "He's just not motivated," or "She's got an attitude that won't stop." Some teachers play the bad-seed behavior card: "Well, you know his father's in prison, so the apple doesn't fall far from the tree." Still other teachers play the "times have changed" card: "Our student body has changed; kids used to be better disciplined, speak English, and work hard. Nowadays, it's all different." If this is how staff members at your school speak to one another, your students may have a bleak future.

Roughly half of students who start school in the United States will struggle. These students often experience some form of marginalization: They live in poverty, they are students of color, they are immigrants, they are English learners, or they have special needs. The majority of

these students will start school below grade level, and somehow, after 13 years of school, most will not have become proficient in reading, writing, or problem solving. They will have fallen behind their peers of higher socioeconomic status. Too few ever catch up.

So there you have it: plenty of reasons to explain why students from poverty will always struggle in school. But if it's inevitable, why did I write a new book on teaching students from poverty? You'll find out as you explore each of the nine chapters in this book.

Before I introduce each chapter, keep in mind that I have chosen to exclude many of the basics of teaching. This book assumes you already know how to plan lessons, set up your room, handle transitions, and design and conduct useful formative assessment. If not, there are other books that cover those topics well. This book is designed to fill in the gaps that are unique to teaching students from poverty and takes a fresh approach with equity in mind. I hope you find this approach to be valuable.

The book is organized around core equity questions. The first chapter is about discovery; it asks you to "Start with Yourself." Chapter 2, "Conscious Connections," gives you three critical relationship levels to reach with your students. Chapter 3 explains how to "Raise the Roof" by fostering high expectations in ways that matter most.

Chapter 4 explores "Equitable Environments" as one of the core paths to your success. Chapter 5, "Rousing Relevance," introduces you to what matters most in students' school experiences; relevance and engagement are pretty high on most students' lists. Chapter 6 has you "Scaffold Scorekeeping." You'll learn how to provide high-quality feedback in ways that will work for every student. In Chapter 7, you'll learn how to move "From Discipline to Coaching." This chapter shows you a simple three-part path to fostering better behaviors. You'll learn the secrets to de-escalation and other classroom climate challenges.

In Chapter 8, "Cognitive Climbers," we'll explore the powerful accelerated learning tools that I've used for decades to help educators become amazingly good at teaching. You'll get reminders of how to

build equity in every class. The last chapter is "The Emerging You." The core tenet here is that change is not easy, but it is doable. You'll learn how to reset your brain for a new path forward, and you'll discover what tools and resources you will need to be a successful teacher.

As an educator, you likely value learning and growing. Every chapter in this book will be putting those values on the line. This book is about growing *you*. We will start with a bit of unlearning, clearing debris, and dispelling myths.

1

Start with Yourself

Student Questions

- ➢ *"Who is my teacher, and what does my teacher believe?"*
- ➢ *"Does my teacher respect and support me, or will I be marginalized again?"*

This first chapter is focused on you. Now, you may be tempted to push back and say, "Wait a minute, I just wanted some strategies for my classroom." But pause for a second. How has that "grab and go" approach been working out for you and your students? Are your students reaching grade-level proficiency every year? Do you love your work? Do you achieve high inclusion and engagement with every student, every day? Do your students grow at a rate at or above your high expectations? Is classroom discipline a nonissue for you? Do your students love being in your class?

These are far from rhetorical questions. The experiences above not only are possible, but also commonly happen with high-performing Title I teachers. There are teachers who get more than a year and a half's worth of learning gains every year.

Now, if you can already answer a strong "Yes" to every one of those questions, feel free to give this book to someone who needs it more

than you do. But if you're like most teachers, your "No" answers might be ready for an update.

You noticed some student questions at the start of this chapter. You'll see such questions throughout the book. One of the book's messages is that unless your teaching answers the questions your students care about most, you'll lose them. They will disconnect, and your school year will not go well.

Each chapter will assist you in better answering the student questions at the start of that chapter. The focus of this book is on *what students need.* Why? That message is at the core of equity.

Today is the first day of the rest of your teaching career. Let's begin with a different approach. Your topics in this chapter are:

- Start with Yourself
- The Impact of Poverty on Your Students
- How Your Brain Works Against You
- Emerging Equity Tools to Embrace

As in each of the other chapters, this one includes several sections at the end to help you reflect on the information and move forward on your growth journey:

- Chapter in a Nutshell
- Revisit the Student Questions
- Before the Next Chapter

We'll begin with a shift in how you learn and prepare. I'm sure that before you begin each class, you have made your preparations and you know just what you intend to do. You have asked the usual questions: "Have I got this? Is this handled, and is that taken care of?" But it's possible that you've failed to include the most important questions—the questions that your students care about the most.

In this first chapter, we'll be holding up a mirror. Each school year, your new students are asking, "Who are you?" It's time we explore what you believe, assume, and subsequently act on. Has your school added

"grit" to the curriculum? Do you know that kids from poverty often show more grit than their teachers do? Low-income 8th grade students will end up graduating from high school at a 78 percent rate, which is increasing annually (Atwell, Balfanz, Bridgeland, & Ingram, 2019). But during the same five-year span, only 56 percent of new teachers will stay in the profession (Ingersoll et al., 2018). Seems like students have grit already.

After five years in school, the majority of students from poverty read below the 4th grade level. Most students eligible for free or reduced lunches are at a basic reading level or below (Nation's Report Card, 2019). This is a critical benchmark. As if that's not bad enough, in the next eight years, the majority are still below grade level in reading proficiency. We can sugarcoat that any way you'd like, but collectively, we are failing our students. As you read this chapter, you'll see in a whole new way why this is happening.

For starters, do you understand poverty? Is it a federal guideline for income earned by a family of four? Is it an aggregate of chronic risk factors? Maybe you've lived in poverty and have your own understanding of it. We all know it's not an assured destiny, nor is it an automatic, predicted lifetime outcome. And although there are many sensible policy suggestions, there's simply a lack of political will to implement most of them. For the moment, let's narrow our focus to what you have strong influence over right away, at your workplace.

Start with Yourself

In any learning experience for their own students, successful teachers will typically start out with discovery. Let's do the same thing here and find out what you already know about the impact poverty has on your students. Figure 1.1 lists 10 statements, and you will decide whether each is true or false. Grab a pen or pencil and mark your responses. Take this seriously, because you'll want to find out where you stand and discover what you already know about poverty.

Figure 1.1 10 Discovery Questions About Poverty

(T/F) 1. The neighborhood that kids live in and the classroom teachers they have in school are two of the biggest influences on students' lifelong success.

(T/F) 2. Children from low-income families start school with smaller and less-complex vocabularies than their middle-income or high-income peers. There's a 30-million-word gap.

(T/F) 3. Students from poverty have typical brain development. They just fall behind because of lack of motivation or parental support. Unfortunately, once a student from poverty enters school one to three years behind, there is little hope.

(T/F) 4. Even if you're poor in the United States, you're still doing pretty well. Poor people often have cell phones, name-brand shoes, and big-screen TVs.

(T/F) 5. The U.S. education system is mostly equal and fair, partly because we live in a meritocracy (a system based on effort and achievement).

(T/F) 6. Poor people value education about the same as middle-income people do.

(T/F) 7. It's cheaper to be poor. Poor people don't have to pay for a lot of things that middle-income and wealthy people have to pay for.

(T/F) 8. Most poor people are unmotivated and lack ambition. They are more likely to be substance abusers than middle-income and wealthy people are.

(T/F) 9. African Americans in poverty have higher rates of suicide, depression, and drug use and lower rates of college attendance and completion than those in any other racial or economic category.

(T/F) 10. Poor people get more government handouts than nonpoor people do.

Debrief Time

The answers to the quiz are in Appendix A. If you got 9 or 10 correct, congratulations! If you got 8 or fewer correct, join the club. Maybe you know less about poverty than you thought you did. Did you discover that some of your beliefs may not be true? Take four minutes and do a quick write. Just offload what's on your mind. You can also do this assignment verbally or share with a partner. There will be more opportunities to grow your awareness, knowledge, and skill sets as you move forward.

The Impact of Poverty on Your Students

There are, of course, many ways to define poverty. I typically define poverty as the presence of multiple adverse risk factors leading to economic, emotional, social, cultural, and biological disadvantages that are multiplied by systemic classism and racism. *But poverty is still best defined by each and every person,* one by one. There are more than 30 million adults in the United States living in poverty (U.S. Census Bureau, 2020), but each person's story is unique. Remember, some poor people live a blessed life, full of gratitude, health, and love. They live within their means with an intact family. Many nonpoor people may dream daily of a life that good. As Nobel Prize–winning economists Abhijit Banerjee and Esther Duflo observe, we need "to stop reducing the poor to cartoon characters and take the time to really understand their lives, in all their complexity and richness" (Biswas, 2019, para. 11). We cannot and should not make generalizations about poor people.

The real truths about poverty can typically elude even the most dedicated social scientists. Poverty is not defined by the opinion of a researcher who writes an article, blog, or book (like this one). It is not defined by someone who grew up in poverty, and then shares their life story and wants to generalize it to every student. It is not defined by one community in one part of the country. (Should we pick rural, urban, or suburban?) And it is certainly not defined by broad-stroke Department of Labor statistics.

To add to the challenge, addressing poverty in your classroom is different from addressing race, although there are correlations between the two. Understanding that the experience of poverty can be exacerbated by racial injustice is critical. Many teachers are unaware that most public schools discriminate against people of color. Nationally, our schools have facilitated significant inequity, and it's time for that to stop. The U.S. Census found that in the United States in 2019, "the share of Blacks in poverty was 1.8 times greater than their share among the general

population. Blacks represented 13.2% of the total population in the United States, but 23.8% of the poverty population. The share of Hispanics in poverty was 1.5 times more than their share in the general population. Hispanics comprised 18.7% of the total population, but 28.1% of the population in poverty" (Creamer, 2020). Although the overrepresentation of Blacks and Hispanics living in poverty is a critical concern, poverty is not solely a racial issue. Non-Hispanic Whites made up 41.6 percent of all people in poverty in the United States in 2019, whereas Blacks made up just 23.8 percent and Hispanics made up 28.1 percent (Creamer, 2020). Although the reasons may be different, all of us have a stake in the process of teaching with poverty and equity in mind.

Typically, the greatest challenges for many teachers are in working with those who are different from themselves. Keep in mind that poverty refers to socioeconomic class only (not gender, geography, or ethnicity). However, achievement gaps for students of color give us additional incentives to acknowledge and change our practices. To become amazing, we'll be starting down the path of equity and using several important processes to succeed. Three of the most common paths that we use to learn about equity are

1. The stories we are told and share.
2. The experiences we've had.
3. The research we read, watch, and share about poverty.

So, can we generalize *anything at all?* What does the research tell us? One way to understand poverty is through the adverse effects of early life experiences—that is, the dual impact of *threat* and *deprivation* (McLaughlin, Weissman, & Bitrán, 2019). Those two forces impact a child's cognitive, emotional, and social development in multiple ways.

The *threat* may be a debilitating or recurring trauma in the form of bullying; home, street, or school violence; internalized pressure from negative stereotypes; or careless and threatening teachers. The *deprivation* may include the loss of a parent (for instance, through divorce, incarceration, or death); loss of an *agile* parent (for instance, through

depression, cancer, or heart disease); loss of residence (for instance, via eviction); loss of respect (for instance, via racism); loss of safety (for instance, via unsafe housing or public transit commutes); or lack of high-quality schools, nearby access to affordable food, affordable health care, or high-level social contacts.

Another pathway to understand the lives of people living in poverty is through the Adverse Childhood Experiences (ACE) studies. These studies show clear links between poverty and childhood adversity (Hughes & Tucker, 2018; Raphael, 2011; Schweiger, 2019). The original ACE study was one of the largest research inquiries into childhood adversity and corresponding adult health outcomes. The study began as a partnership between Dr. Robert Anda at Atlanta's Centers for Disease Control (CDC) and Dr. Vincent Felitti at Kaiser Permanente in San Diego. More than 17,000 adult Health Maintenance Organization (HMO) members took a detailed physical exam and answered a list of questions about their childhood experiences. The beginning of the survey asked, "Did this happen to you before the age of 18?"

The survey questions included topics on abuse, neglect, divorce, incarceration, drug addiction, violence, mental health, eviction, and more. The ACE study tells us that there are correlations between childhood adversity and later health, cognitive, and social issues (Felitti et al., 1998). As you know, correlations are different from causality, so we are going to be cautious. For one thing, studies suggest there's commonly a risk in using subjects' self-reports of early childhood; there is evidence in studies of both underreporting and overreporting (Hardt & Rutter, 2004).

But given the size of the study, it's still well worth our attention. Here are some of the student responses that often correlate with adverse childhood experiences:

- **Chronic and acute stressors** can lead to the possibility of greater impulsivity, on-off motivation, worse short-term and long-term memory, increased misbehavior in the classroom, less-reflective thinking and writing, and higher absenteeism.

- **Lack of access to mentors and inspiring adult connections** can lead to less hope, weaker motivation, lack of life skills, and lack of encouraging role models.
- **Substandard medical, emotional, and mental health resources** mean less access to good food; lack of a healthy, supportive family structure; an increased potential for hearing issues; a decreased likelihood of vision care; and a decreased likelihood of immunizations.
- **Lack of experienced, high-quality teachers in Title I schools** can lead to lower expectations of the value of education, less likelihood of high school graduation, and increased hopelessness.
- **Unsafe neighborhoods and housing instability** can increase tardiness at school. High crime in unsafe neighborhoods means students may have to take time-consuming detours around a police scene. In addition, students may not have reliable transportation. If their families are evicted or moving, students will bring stressors to school. Exposure to violence can happen in a neighborhood, at school, or at home. Students may normalize violence or have extreme responses to the trauma of it.
- **Social and emotional skills** not suited for classrooms might show up as poor behaviors, inappropriate responses to teacher requests, lack of empathy leading to disciplinary issues, and weaker social and personal relationships.
- **Less exposure to critical connections** means that many families in poverty lack access to networks of financial and medical professionals. These families often lack access to high-speed internet and computers, as well.
- **Continuous exposure to classism, racism, or other biases** may evoke mistrust of authority; bitterness, anger, or resentment because of the disrespect felt at every social or institutional turn; and loss of academic hope.

As you might guess, the more adversity a student has in childhood, the greater the risks the student faces in school and adulthood. The

risks include lower grades, poor health outcomes, mental health issues, legal problems, suboptimal social-emotional skills, and less income mobility. A large, recent survey with nearly a quarter of a million subjects (Merrick, Ford, Ports, & Guinn, 2018) revealed that adults in the United States have the following percentages of ACEs:

- 38 percent have zero adverse experiences.
- 24 percent have one adverse experience.
- 13 percent have two adverse experiences.
- 9 percent have three adverse experiences.
- 16 percent have four or more adverse experiences.

This tells us that ACEs are common but not universal; over 60 percent of adults have had one or none. How many did you have? Many healthcare professionals have told me that anyone with four or more ACEs will likely have severe difficulties as an adult. As you might guess, the ACEs listed above are largely missing from many teachers' lives. Students from poverty might be in a situation that many middle-class educators can't even wrap their heads around.

How Your Brain Works Against You

How do you react to the research about adverse childhood experiences? Maybe you say to yourself, "Oh, that explains it. Bad things at home mean the kid's going to have issues at school. Tell me something I don't know." That's a common response. But there's a problem with that instant takeaway. When you hear or read of a study, remember this: Nearly every study is about correlations, and proving causality is very difficult. Studies are about the details. As a shortcut, our brain wants to jump to the bottom line. That's a bias. Why should you care?

The original ACE study has generated more than 70 subsequent scientific articles, so it is easy to predict doom and gloom for kids from poverty. Yet it is critical to know that *zero* of the ACE survey participants were asked about strengths, resources, or resilience (Leitch,

2017). Those factors *can mitigate the effects of adversity*. Trauma-informed approaches also mitigate adverse experiences (Ortiz, 2019). It is easy to misinterpret ACE studies. In short, the story of adversity in childhood is complex. The bias is to think you're helpless. You're not (unless you start believing everything you hear).

Keep in mind that for some students, living in poverty has forged a powerful sense of character and resilience, with a never-quit determination. Such students can teach you a lot about grit. My question to you is, do you believe it is possible for *every student* to grow and succeed? Maybe you find it hard to believe it is possible for every student. Would I change your mind if I told you how many engineers, leaders, scientists, authors, or Nobel laureates came from poverty? Or would you say, "Those are just outliers"? That's a bias. How many outliers do you need in order to believe in your students? Because if you need more than one, maybe you just don't want to believe.

If you do have a problem believing that all students can succeed, you are not alone. It's a result of your brain trying to help you cope in a world that your biology left you unprepared for. So, what are the brain's tendencies, how did they develop, and what do they have to do with you teaching students from poverty?

Your System 1 Brain Can Help You Survive

Early human tribes likely spent a good portion of the day doing what you take for granted: surviving. Survival steered our species toward select and crucial skills: finding food, early procreation, maternity, escaping from predators, raising families, and forming tribal bonds (Kenrick, Neuberg, Griskevicius, Becker, & Schaller, 2010). To survive, your brain uses a series of quickly learned tools. Why?

If a predator is approaching, you have mere seconds to assess the risk, choose a survival strategy, and take action. "Think fast or die" was the survival mantra encoded in our early brain. Nobel laureate Daniel Kahneman calls it our *System 1* or *reactive* brain (Morewedge &

Kahneman, 2010). Decades ago, educators referred to this as the *reptilian brain.*

The System 1 part of your brain enables you to absorb quick bites of information and make fast generalizations. It often establishes a set of attitudes, or biases, toward groups of people, places, and things. Those biases may be designed to keep you alive, but remember that surviving is different from thriving. Because speed can keep you alive, your brain uses shortcuts to cut out the time-consuming process of thinking, analyzing data, listening to opposing points of view, gaining consensus, and sharing the decision. The predator would have eaten you a long time ago in that thoughtful scenario.

Your brain generates cognitive biases so quickly you rarely notice it. In fact, researchers have identified more than 175 cognitive biases (Benson, 2016). Here are five common biases you may have experienced:

1. **Bandwagon effect:** We tend to join in with what many others are doing. ("Ten other schools are doing this in our state; let's do it!")
2. **Blind spot bias:** We are often unable to notice our weaknesses ("I would know it if I had those cognitive biases.")
3. **Confirmation bias:** We tend to see anything that confirms what we already believe in. ("Yes! This example confirms exactly what I was saying earlier.") This bias gives us the feeling of pride and validation (Darley & Gross, 2000; Hart et al., 2009).
4. **Familiarity bias:** If we have already heard of an idea before, it is easier to be biased in favor of it or to dismiss it. ("This idea's as old as my grandma. We've all heard it before; we should move on.")
5. **Stereotype bias:** We often judge others by the gender, social, or ethnic group they are in ("That kid's like the rest of those people. Not a drop of motivation.")

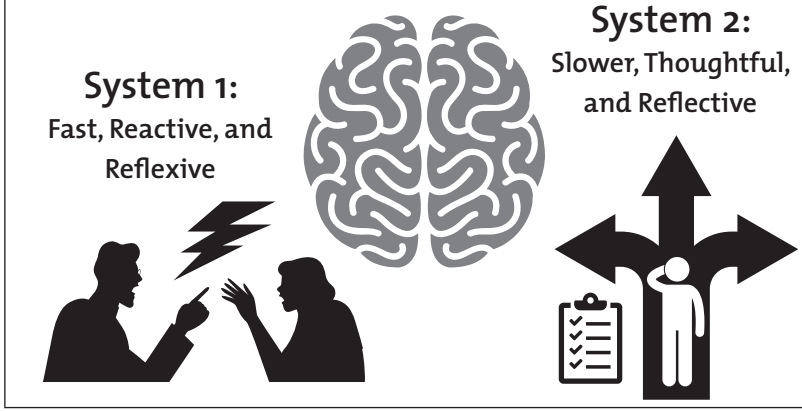
A starting bias to remember is the *blind spot bias* (see above). That's the inability to notice and reveal your own weaknesses because you

feel you would already know about them (Pronin, Lin, & Ross, 2002). Any time you catch yourself denying that you have a bias, pause. That defense just might be your worst bias of all.

Throughout this book, you'll find yourself uncovering one bias after another. When that moment happens, relax; we all have them.

Why is this brain-based background relevant to you? As I said, we all have biases. Some biases are helpful and save us time. But others distort our perception of reality and become destructive. Biases are rarely "fixed," but they can be altered, diminished, or reinforced. Educators who succeed with students from poverty have different, more constructive biases than those who struggle. Fortunately, there are solutions to solve this big bog of biases, and they lie in our "System 2" brain (see Figure 1.2).

Figure 1.2 Two Brains in One Head



Your System 2 Brain Can Help You Thrive

Eventually the System 1 brains of the emerging Homo sapiens (roughly 160,000 to 200,000 years ago) began to develop into the brains we have today (Roebroeks & Soressi, 2016). Over the millennia,

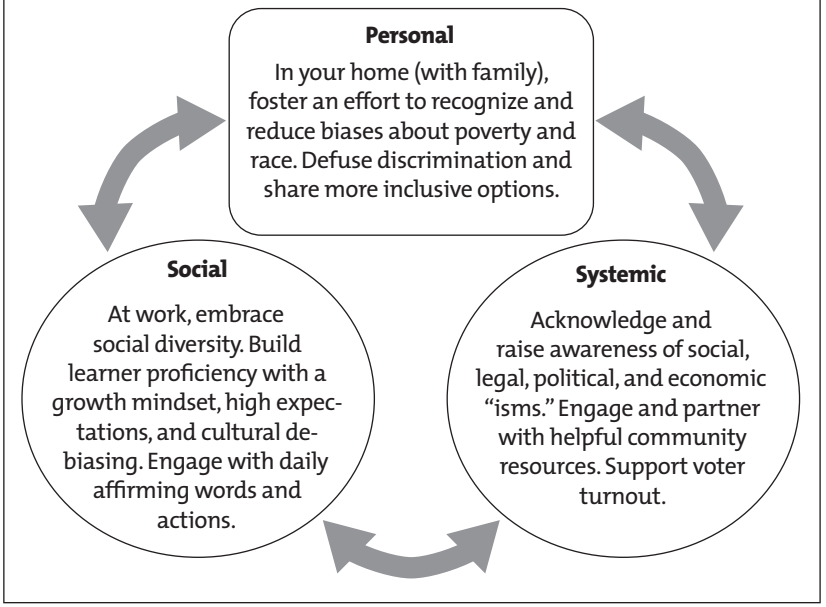
the human brain has added greater complexity as the world changed. Our brain added the capacity for more sophisticated life skills, such as reflection, language, and cognitive problem solving, which Dr. Kahneman calls our *System 2* brain. These emerging pathways enabled us to form larger tribes, boost communication skills, improve planning, and gain better predatory and defensive options. Tribes and cultures grew, moved, and then expanded. They clashed with others for resources again and again. There were "in-groups" and "out-groups" with subsequent warfare.

Over time, our brain's newly adaptive survival tools allowed us to make conscious changes. If you're serious about growing yourself, these are what it takes to make success happen. The "grab and go" mentality (using System 1) only gets you more of the same. For many, the biases created by System 1 thinking are about stereotypes related to gender, race, or ethnicity. But that's just the tip of the bias iceberg. The good news? You'll learn how to flip that bias. Yes, *you can do it,* and it will change the way you think and act. Let's start fresh with a term you've heard a lot lately: *equity.*

Emerging Equity Tools to Embrace

If you teach students from poverty, the single solution that can change everything for you is equity. Equity refers to the mindset, policies, and approaches used to ensure that every student gets what they need to succeed. Equity is different from equality. Equity requires giving more to those who need it most, so that students have a greater chance of successful outcomes. Equity is not a new curriculum or assessment. Equity fosters antidiscrimination, antisexism, and antiracism. Equity also includes the policies, systems, and structures that may be in place in the classroom or school. In sum, equity is a framework for understanding your role at work in ways that will help every one of your students succeed. See Figure 1.3 to better understand equity at a personal, social, and systemic level.

Figure 1.3 **Three Ways to Foster Equity**



The lack of equity is what started most of the problems, and for that reason, equity is the solution to most of the problems. Equity means you are doing whatever it takes for students to succeed. Make the choice to embed equity in every single facet of your work, and you'll mitigate enough potential student risk factors so that students will thrive, every day. Let's be very clear about this: Equity is a path, but it is not just another item for your daily to-do list. Equity in your school works best when it is based on a strong foundation.

What does it look like, sound like, and feel like to your students? Many staff members at Title I schools may complain about their students but fail to develop the insights, expertise, or daily habits to make changes. Equity is learning to be empathetic and to act on student needs. Until you can wrap your head around the world that your students live in, you'll always struggle. This book will share mindsets, tools,

and action steps to help you grow in your engagement with equity. You can download a handy, simple equity graphic organizer at www.jensenlearning.com/equity-resources.

Finally, what's in your path preventing you from being amazing is not genes, talent, or an education. It's your own brain. Sometimes your brain's biases, stories, and identities can help; other times they can hurt. In this chapter, you learned why and how your brain's System 1 tendencies of bias and distracted intentions often work against you. The good news is that brains are highly malleable, and you can pivot to a new choice any day of your life (see Figure 1.4.). Your System 2 brain is more than capable of change. Let's start with what equity steps we will need to take to succeed.

This book will introduce growth paths that may potentially become life-changing and powerful for you. Even better news? Each path is modifiable to best fit you, your classroom, and your students. They will allow you to enhance your personal and professional life. One or two tools will be introduced in each chapter, and any one of these is powerful for helping you be amazing in your life. However, they are

Figure 1.4 **Your Best Asset Is You**

insufficient individually to make the miracles we're after, so stay with us on this path.

I'd suggest starting with just one tiny but powerful step: *authentic intention.* For years, I felt like the most intention-less person on the planet. I rarely focused on a single task for long. I would jump from one idea to another. Not much got finished, and what was finished was rarely done well. I remember blaming it on my ADHD. In fact, I failed to even ask myself, "What on earth *am* I intending at the moment?"

Over the years, I discovered that unless I focus authentically and intentionally, write things down, and make lists for almost everything, I am a basket case. You may have students who seem distracted and unfocused. Do you have a bias against those students? My personal turning point was to realize there were others like me. I started to reflect on all the students whom I had thought less of because they seemed scattered and devoid of intention. I felt ashamed, but over time, I learned to forgive myself. I decided the best course was to help other kids just like me. That's why I became a teacher focusing on skills for underperforming students.

Authentic intention is defined as a directed thought to perform a determined, specific task in a specific location at a specific time. Intention could be a stated or written goal ("I will affirm the value of a different student every day, in person, at the door before they leave, starting next Monday."). Intentional thought guides one into an action (Bonilla, 2008). Intentions are regarded by many researchers as a directed thought for a predicted gain, but we often intend the wrong things, intend nothing at all, or get distracted. Intention is usually a necessary difference-maker for growth.

One study found that subjects' success in habit forming was partly driven by the level of involvement of the part of their brains that supports goal-directed intention (Zwosta, Ruge, Goschke, & Wolfensteller, 2018). Strong intention suppresses irrelevant distractions which, in turn, helps the brain focus on the task at hand (Eryilmaz et al., 2017). In fact, intention is in the *top three* interventions that form new habits

(Mergelsberg, Mullan, Allom, & Scott, 2020). (The other two interventions are the *type of habit* and the *specific behavior chosen*.) In short, there's clear evidence that intentions matter.

Chapter in a Nutshell

This chapter is about you, the teacher, and how your equity mindset can make the difference for your students. Equity is the belief, commitment, and actions that help students get what they need to succeed at school. In other words, if a student walked to school barefoot, and continually had blisters, would you point fingers and blame the mayor, the uneven sidewalks, and the potholes in the streets (the environment)? Or would you help that student get a pair of shoes?

Poverty is not the reason for underperforming students. Students who struggle are the result of a mismatch between the students' needs and the response provided by the teachers and the school. *The lack of compensatory equity is our challenge to meet.* Successful schools enhance existing assets, build new skills, shift expectations into high gear, build community, show respect, and open opportunity doors. Struggling schools fail at these missions. The difference is you.

Revisit the Student Questions

At the start of each chapter, you will see several equity questions that students may ask about you and your class. These questions come from five aggregated surveys of more than one million students. The sources used to gather these student questions are listed in Appendix B. Notice that equity questions are all about what students need. Other questions will be answered within each of the upcoming chapters.

Here are the student questions for this first chapter:

- ➢ *"Who is my teacher, and what does my teacher believe?"*
- ➢ *"Does my teacher respect and support me, or will I be marginalized again?"*

Your students care about those two questions as much as or more than you care about *your* questions. Most teachers' questions about teaching are about themselves. They have the words *I, me,* or *my* in them: *How should I set up my classroom? How can I make this process easier for me? What's my plan for this semester? What software, books, programs, or activities will I use this year? How will I implement our new discipline policy? What is the latest tech that I could use in my classroom?* and on and on. The student questions above suggest that students care as much about the question "Who are you?" That's where this book fits in.

Before the Next Chapter

Write a list of things you intend to do differently in your classroom over the next 30 days. These are things that you are thinking of changing after reading this first chapter. You might end up with multiple intentions. Once you have done that, rank them in order of priority. Use the criteria of "urgent and important" for the top of the list, maybe listing just your top two intentions. A couple of examples might be the following:

- "Choose my intentions daily for work and home life."
- "Be an ally and advocate for the students who struggle the most!"

Next, add the place and time you'll complete the intention. Those added critical details are called *implementation intentions* and are highly effective (Milne, Orbell, & Sheeran, 2002). Always pair your constructive professional changes with personal changes. That's why you'll make two tiny (but powerful) changes this chapter. Your new intentions might read like this:

- **Professional:** "Every day, once I arrive in my classroom, I will select a different student whom I will be an amazing ally for. I will connect with empathy and joy. I will support this student with one piece of positive feedback today."

- **Personal:** "Later in the day, as soon as I arrive at home and park my car, I pause. I review my home intentions ('Leave my work at work and bring kindness and joy as an ally for my partner, family, or roommate') before going through the front door."

Review your top intentions every morning. If you hear a voice in your head saying, "I don't have time for more new stuff!", recognize that that voice is expressing your "time bias," which consistently makes iffy estimates. After all, most teachers seem to have plenty of time for reteaching. You *do* have time to make crucial changes. After two weeks, you can add to, subtract from, or modify your intentions. Reading these daily will help them serve as your guiding North Star for this next segment of the change process.

If you want to see what really matters to you, pause and look at how you spend your time as you read this book. You can "borrow" knowledge, reading or listening from others, but the delegation of habits (showering, eating, sleeping, working out, brushing teeth, changing clothes, and thinking) is impossible. *You* make the choice to change your habits and grow. Be different. Think, plan, and embed the affirming answers to the student questions at the start of every chapter. The next action step is all yours. We will add to your growth each chapter. In this chapter, it's all about intentions and equity. Go ahead and start with your intentions; your students are waiting.

References

Adair, J. K., Sánchez-Suzuki Colegrove, K., & McManus, M. E. (2017). How the word gap argument negatively impacts young children of Latinx immigrants' conceptualizations of learning. *Harvard Educational Review, 87,* 309–334.

Ainsworth, M., & Bowlby, J. (1991). An ethological approach to personality development. *American Psychologist, 46,* 333–341.

Albalooshi, S., Moeini-Jazani, M., Fennis, B. M., & Warlop, L. (2020). Reinstating the resourceful self: When and how self-affirmations improve executive performance of the powerless. *Personality and Social Psychology Bulletin, 46,* 189–203.

Alloway, T., & Alloway, R. (2010). Investigating the predictive roles of working memory and IQ in academic attainment. *Journal of Experimental Child Psychology, 106,* 20–29.

Amabile, T. M., & Kramer, S. J. (2011). The power of small wins. *Harvard Business Review, 89*(5), 70–80.

Ames, D. R., & Kammrath, L. K. (2004). Mind-reading and metacognition: Narcissism, not actual competence, predicts self-estimated ability. *Journal of Nonverbal Behavior, 28*(3).

Anderson, B. A. (2019). Neurobiology of value-driven attention. *Current Opinion in Psychology, 29,* 27–33.

Anderson, K. B., & Graham, L. M. (2007). Hostile attribution bias. *Encyclopedia of Social Psychology* (pp. 446–447). SAGE Publications.

Anderson, S. (2019, October 14). Immigrant Nobel Prize winners keep leading the way for America. *Forbes Magazine*. www.forbes.com/sites/stuartanderson/2019/10/14/immigrant-nobel-prize-winners-keep-leading-the-way-for-america

Atwell, M. N., Balfanz, R., Bridgeland, J., & Ingram, E. (2019). *Building a grad nation: Progress and challenge in raising high school graduation rates: Annual update 2019*. Johns Hopkins University School of Education. www.americaspromise.org/2019-building-grad-nation-report

Aven, T. (2018). Reflections on the use of conceptual research in risk analysis. *Risk Analysis, 38,* 2415–2423.

Azzam, A. (2007). Why students drop out. *Educational Leadership, 64*(7), 91–93.

Balfanz, J., Byrnes, V., & Fox, J. (2015). Sent home and put off track: The antecedents, disproportionalities, and consequences of being suspended in the 9th grade. In D. J. Losen (Ed.), *Closing the school discipline gap: Equitable remedies for excessive exclusion* (pp. 17–30). Teachers College Press.

Barros, R. M., Silver, E. J., & Stein, R. E. (2009). School recess and group classroom behavior. *Pediatrics, 123,* 431–436.

Basch, C. E. (2011a). Healthier students are better learners: High-quality, strategically planned, and effectively coordinated school health programs must be a fundamental mission of schools to help close the achievement gap. *Journal of School Health, 81,* 650–662.

Basch, C. E. (2011b). Physical activity and the achievement gap among urban minority youth. *Journal of School Health, 81,* 626–634.

Bates, T. C., Lewis, G. J., & Weiss, A. (2013). Childhood socioeconomic status amplifies genetic effects on adult intelligence. *Psychological Science, 24,* 2111–2116.

Benner, A. D., & Mistry, R. S. (2007). Congruence of mother and teacher educational expectations and low-income youth's academic competence. *Journal of Educational Psychology, 99*(1), 140–153.

Benson, B. (2016, September 1). Cognitive bias cheat sheet [blog post]. *Better Humans.* https://betterhumans.pub/cognitive-bias-cheat-sheet-55a472476b18

Berner, E. S., & Graber, M. L. (2008). Overconfidence as a cause of diagnostic error in medicine. *American Journal of Medicine, 121*(5 Suppl), S2–23.

Bernstein, M. J., & Claypool, H. M. (2012). Social exclusion and pain sensitivity: Why exclusion sometimes hurts and sometimes numbs. *Personality and Social Psychology Bulletin, 38,* 185–196.

Biswas, S. (2019, October 15). Abhijit Banerjee and Esther Duflo: The Nobel couple fighting poverty. *BBC News*. www.bbc.com/news/world-asia-india-50048519

Board of Governors of the U.S. Federal Reserve. (2018). *Report on the economic well-being of U.S. households in 2017.* Author.

Bonilla, E. (2008). Evidence about the power of intention. *Investigacion Clinica, 49*(4), 595–615.

Bönstrup, M., Iturrate, I., Thompson, R., Cruciani, G., Censor, N., & Cohen, L. G. (2019, April 22). A rapid form of offline consolidation in skill learning. *Current Biology, 29*(8), 1346–1351.

Boser, U., Wilhelm, M., & Hanna, R. (2014). *The power of the Pygmalion effect.* Center for American Progress.

Bottiani, J. H., Bradshaw, C. P., & Mendelson, T. (2016). Inequality in Black and White high school students' perceptions of school support: An examination of race in context. *Journal of Youth and Adolescence, 45*(6), 1176–1191.

Brown, C. S., & Chu, H. (2012). Discrimination, ethnic identity, and academic outcomes of Mexican immigrant children: The importance of school context. *Child Development, 83*(5), 1471–1485.

Brown, C. S., & Stone, E. A. (2016). Gender stereotypes and discrimination: How sexism impacts development. *Advances in Child Development and Behavior, 50,* 105–133.

Bruner, J. S. (2001). Self-making and world-making. In J. Brockmeier & D. Carbaugh (Eds.), *Narrative identity: Studies in autobiography, self and culture* (pp. 25–36). John Benjamins.

Buchweitz, A., & Prat, C. (2013). The bilingual brain: Flexibility and control in the human cortex. *Physics of Life Reviews, 10,* 428–443.

Burns, R. D., Brusseau, T. A., Fu, Y., Myrer, R. S., & Hannon, J. C. (2016). Comprehensive school physical activity programming and classroom behavior. *American Journal of Health Behavior, 40*(1), 100–107.

Buzzai, C., Sorrenti, L., Tripiciano, F., Orecchio, S., & Filippello, P. (2020). School alienation and academic achievement: The role of learned helplessness and mastery orientation. *School Psychology, 36*(1), 17–23.

Caeyenberghs, K., Metzler-Baddeley, C., Foley, S., & Jones, D. K. (2016). Dynamics of the human structural connectome underlying working memory training. *Journal of Neuroscience, 36,* 4056–4066.

Carey, R. L. (2019). Imagining the comprehensive mattering of Black boys and young men in society and schools: Toward a new approach. *Harvard Educational Review, 89*(3), 370–396.

Center for Behavioral Health Statistics and Quality. (2016). *2015 National survey on drug use and health: Detailed tables.* Substance Abuse and Mental Health Services Administration.

Center on Budget and Policy Priorities. (2019, June 25). *Policy basics: The Supplemental Nutrition Assistance Program (SNAP).* www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap

Chetty, R., Friedman, J. N., & Rockoff, J. E. (2011). *The long-term impacts of teachers: Teacher value-added and student outcomes in adulthood* (NBER Working Paper 17699). National Bureau of Economic Research.

Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity in the United States? The geography of intergenerational mobility in the U.S. *Quarterly Journal of Economics, 129*(4), 1553–1623.

Children's Defense Fund. (2020). *The state of America's children 2020. Table 2: Poor children in America in 2018—A portrait.* www.childrensdefense.org/policy/resources/soac-2020-child-poverty-tables

Cohen, D. A., Pascual-Leone, A., Press, D. Z., & Robertson, E. M. (2005). Off-line learning of motor skill memory: A double dissociation of goal and movement. *Proceedings of the National Academy of Sciences of the United States of America, 102,* 18237–18241.

Compton-Lilly, C. (2003). *Reading families: The literate lives of urban children.* Teachers College Press.

Conway-Hicks, S., & de Groot, J. M. (2019). Living in two worlds: Becoming and being a doctor among those who identify with "not from an advantaged background." *Current Problems in Pediatric and Adolescent Health Care, 49*(4), 92–101.

Cook, D. A., & Artino, A. R., Jr. (2016). Motivation to learn: An overview of contemporary theories. *Medical Education, 50,* 997–1014.

Cooper, C. R., Domínguez, E., Cooper, R. G., Higgins, A., & Lipka, A. (2018). Capital, alienation, and challenge: How U.S. Mexican immigrant students build pathways to college and career identities. *New Directions for Child and Adolescent Development, 160,* 75–87.

Cooperative Children's Book Center, School of Education, University of Wisconsin, Madison. (2020). *Book by and/or about Black, Indigenous, and People of Color (all years).* https://ccbc.education.wisc.edu/literature-resources/ccbc-diversity-statistics/books-by-about-poc-fnn

Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research, 77,* 113–143.

Cousijn, J., Zanolie, K., Munsters, R. J., Kleibeuker, S. W., & Crone, E. A. (2014). The relation between resting state connectivity and creativity in adolescents before and after training. *PLOS ONE, 9*(9), e105780.

Creamer, J. (2020, Sept. 15). *Inequities persist despite decline in poverty for all major race and Hispanic origin groups.* U.S. Census Bureau. www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html

Croskerry P., Singhal, G., & Mamede, S. (2013a). Cognitive debiasing 1: Origins of bias and theory of debiasing. *BMJ Quality & Safety, Suppl 2,* ii58–ii64.

Croskerry, P., Singhal, G., & Mamede, S. (2013b). Cognitive debiasing 2: Impediments to and strategies for change. *BMJ Quality & Safety, Suppl 2,* ii65–ii72.

Curlik, D. M., & Shors, T. J. (2013). Training your brain: Do mental and physical (MAP) training enhance cognition through the process of neurogenesis in the hippocampus? *Neuropharmacology, 64*(1), 506–514.

Dalla, C., Bangasser, D., Edgecomb, C., & Shors, T. J. (2007). Neurogenesis and learning: Acquisition and asymptotic performance predict how many new cells survive in the hippocampus. *Neurobiology of Learning and Memory, 88*(1), 143–148.

Darley, J. M., & Gross, P. H. (2000). A hypothesis-confirming bias in labelling effects. In C. Stangor (Ed.), *Stereotypes and prejudice: Essential readings* (p. 212). Psychology Press.

Davis, H. A. (2013). Teacher-student relationships. In J. Hattie & E. M. Anderman (Eds.), *International Guide to Student Achievement* (pp. 221–223). Routledge.

Dee, T. S., & Penner, E. K. (2017). Causal effects of cultural relevance: Evidence from an ethnic studies curriculum. *American Educational Research Journal, 54,* 127–166.

De Houwer, J. (2019). Implicit bias is behavior: A functional-cognitive perspective on implicit bias. *Perspectives on Psychological Science, 14,* 835–840.

Devine, P. G., Forscher, P. S., Austin, A. J., & Cox, W. T. L. (2012). Long-term reduction in implicit race bias: A prejudice habit-breaking intervention. *Journal of Experimental Social Psychology, 48,* 1267–1278.

Dewar, D. (2020). Recognizing white privilege. *Canadian Family Physician, 66,* 879–882.

D'Hondt, F., Eccles, J. S., Houtte, M. V., & Stevens, P. A. (2016). Perceived ethnic discrimination by teachers and ethnic minority students' academic futility: Can parents prepare their youth for better or for worse? *Journal of Youth and Adolescence, 45*(6), 1075–1089.

Diala, C. C., Muntaner, C., & Walrath, C. (2004). Gender, occupational, and socioeconomic correlates of alcohol and drug abuse among U.S. rural, metropolitan, and urban residents. *American Journal of Drug and Alcohol Abuse, 30*(2), 409–428.

Dimitroff, S. J., Kardan, O., Necka, E. A., Decety, J., Berman, M. G., & Norman, G. J. (2017). Physiological dynamics of stress contagion. *Scientific Reports, 7,* 6168.

Domínguez, D. J. F., Lewis, E. D., Turner, R., & Egan, G. F. (2009). The brain in culture and culture in the brain: A review of core issues in neuroanthropology. *Progress in Brain Research, 178,* 43–64.

Downer, J. T., Sabol, T. J., & Hamre, B. (2010). Teacher–child interactions in the classroom: Toward a theory of within- and cross-domain links to children's developmental outcomes. *Early Education and Development, 21,* 699–723.

Draganski, B., Gaser, C., Busch, V., Schuierer, G., Bogdahn, U., & May, A. (2004). Neuroplasticity: Changes in grey matter induced by training. *Nature, 427,* 311–312.

Driscoll, K. C., & Pianta, R. C. (2010). Banking time in head start: Early efficacy of an intervention designed to promote supportive teacher-child relationships. *Early Education and Development, 21,* 38–64.

D'Souza, A. A., Moradzadeh, L., & Wiseheart, M. (2018). Musical training, bilingualism, and executive function: Working memory and inhibitory control. *Cognitive Research: Principles and Implications, 3,* 11.

Dubol, M., Trichard, C., Leroy, C., Sandu, A. L., Rahim, M., Granger, B., et al. (2018). Dopamine transporter and reward anticipation in a dimensional perspective: A multimodal brain imaging study. *Neuropsychopharmacology, 43,* 820–827.

Duckworth, A. L., Quinn, P. D., & Seligman, M. E. P. (2009). Positive predictors of teacher effectiveness. *Journal of Positive Psychology, 4*(6), 540–547.

Dudai, Y., Karni, A., & Born, J. (2015). The consolidation and transformation of memory. *Neuron, 88,* 20–32.

Dumont, H., Protsch, P., Jansen, M., & Becker, M. (2017). Fish swimming into the ocean: How tracking relates to students' self-beliefs and school disengagement at the end of schooling. *Journal of Educational Psychology, 109,* 855–870.

Efferson, C., Lalive, R., & Fehr, E. (2008). The coevolution of cultural groups and ingroup favoritism. *Science, 321,* 1844–1849.

Eitle, D. J., & Eitle, T. M. (2013). Methamphetamine use among rural White and Native American adolescents: An application of the stress process model. *Journal of Drug Education, 43,* 203–221.

Erwin, H., Fedewa, A., Beighle, A., & Ahn, S. (2012). A quantitative review of physical activity, health, and learning outcomes associated with classroom-based physical activity interventions. *Journal of Applied School Psychology, 28,* 14–36.

Eryilmaz, H., Rodriguez-Thompson, A., Tanner, A. S., Giegold, M., Huntington, F. C., & Roffman, J. L. (2017). Neural determinants of human goal-directed vs. habitual action control and their relation to trait motivation. *Scientific Reports, 7,* 6002.

Essa, H. (2016). *Teach us your name.* Kindle Direct Publishing.

Evans, G. W., Gonnella, C., Marcynyszyn, L. A., Gentile, L., & Salpekar, N. (2005). The role of chaos in poverty and children's socioemotional adjustment. *Psychological Science, 16,* 560–565.

Evans, G. W., & Kim, P. (2012). Childhood poverty and young adults' allostatic load: The mediating role of childhood cumulative risk exposure. *Psychological Science, 23,* 979–983.

Evans, G. W., Li, D., & Whipple, S. S. (2013). Cumulative risk and child development. *Psychological Bulletin, 139,* 1342–1396.

Evans, G. W., Swain, J. E., King, A. P., Wang, X., Javanbakht, A., Ho, S. S., et al. (2016). Childhood cumulative risk exposure and adult amygdala volume and function. *Journal of Neuroscience Research, 94,* 535–543.

Ewing, J. (2020). *Math for ELLs: As easy as uno, dos, tres.* Rowman and Littlefield.

Fabelo, T., Thompson, M. D., Plotkin, M., Carmichael, D., Marchbanks, M. P., III, & Booth, E. A. (2011). *Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement*. Council of State Governments Justice Center. https://csgjusticecenter.org/publications/breaking-schools-rules

Farrington, C. A., Roderick, M., Allensworth, E. A., Nagaoka, J., Johnson, D. W., Keyes, T. S., & Beechum, N. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in academic performance: A critical literature review*. Consortium on Chicago School Research.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., et al. (1998, May). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine, 14*(4), 245–258.

Ferguson, R. (1998). Can schools narrow the test score gap? In C. Jencks & M. Phillips, Eds., *The black-white test score gap: Why it persists and what can be done* (pp. 318–374). Brookings Institution.

Ferguson, R. F. (2003). Teachers' perceptions and expectations and the black-white test score gap. *Urban Education, 38,* 460–507.

Feynman, R. (2015). *The quotable Feynman*. Princeton University Press.

Flowerday, T., & Schraw, G. (2000). Teacher beliefs about instructional choice: A phenomenological study. *Journal of Educational Psychology, 92,* 634–645.

Forgiarini, M., Gallucci, M., & Maravita, A. (2011). Racism and the empathy for pain on our skin. *Frontiers in Psychology, 2,* 108.

Frazier, P., Gabriel, A., Merians, A., & Lust, K. (2019, October). Understanding stress as an impediment to academic achievement. *Journal of American College Health, 67*(6), 562–570.

Frías-Lasserre, D., Villagra, C. A., & Guerrero-Bosagna, C. (2018). Stress in the educational system as a potential source of epigenetic influences on children's development and behavior. *Frontiers in Behavioral Neuroscience, 12,* 143.

Fullilove, R. E., & Treisman, P. U. (1990). Mathematics achievement among African-American undergraduates at the University of California, Berkeley. *Journal of Negro Education, 59,* 463–478.

Galea, S., Ahern, J., Tracy, M., & Vlahov, D. (2007). Neighborhood income and income distribution and the use of cigarettes, alcohol, and marijuana. *American Journal of Preventive Medicine, 32,* 195–202.

Gershenson, S., Hart, C. M. D., Lindsay, C. A., & Papageorge, N. W. (2017). *The long-run impacts of same-race teachers* (Working Paper 25254). National Bureau of Economic Research. www.nber.org/system/files/working_papers/w25254/w25254.pdf

Gershenson, S., Holt, S. B., & Papageorge, N. W. (2016, June). Who believes me? The effect of student-teacher demographic match on teacher expectations. *Economics of Education Review, 52,* 209–224.

Gershenson, S., & Papageorge, N. (2021). The power of teacher expectations. *Education Next, 18*(1). www.educationnext.org/power-of-teacher-expectations-racial-bias-hinders-student-attainment

Gibbs, B. G. (2010). Reversing fortunes or content change? Gender gaps in math-related skill throughout childhood. *Social Science Research, 39,* 540–569.

Glock, S., Kovacs, C., & Pit-ten Cate, I. (2019). Teachers' attitudes towards ethnic minority students: Effects of schools' cultural diversity. *British Journal of Educational Psychology, 89*(4), 616–634.

Goldhaber, D., Theobald, R., & Tien, C. (2019). Why we need a diverse teacher workforce. *Phi Delta Kappan, 100*(5), 25–30.

Golinkoff, R. M., Hoff, E., Rowe, M. L., Tamis-LeMonda, C. S., & Hirsh-Pasek, K. (2019). Language matters: Denying the existence of the 30-million-word gap has serious consequences. *Child Development, 90*(3), 985–992.

Gordon, R., Kane, T. J., & Staiger, D. O. (2006). *Identifying effective teachers using performance on the job* (Discussion Paper No. 2006-01). Brookings Institution.

Graber, M. L., Kissam, S., Payne, V. L., Meyer, A. L., Sorensen, A., Lenfestey. N., et al. (2012). Cognitive interventions to reduce diagnostic error: A narrative review. *BMJ Quality & Safety, 21,* 535–557.

Greene, R. W. (2016). *Lost and found: Helping behaviorally challenging students.* Jossey-Bass.

Gupta, R. (2019). Positive emotions have a unique capacity to capture attention. *Progress in Brain Research, 247,* 23–46.

Hagoort, P. (2020). The meaning-making mechanism(s) behind the eyes and between the ears. *Philosophical Transactions of the Royal Society B: Biological Sciences, 375*(1791).

Hair, N. L., Hanson, J. L., Wolfe, B. L., & Pollak, S. D. (2015). Association of child poverty, brain development, and academic achievement. *JAMA Pediatrics, 169*(9), 822–829.

Hammond, Z. (2015). *Culturally responsive teaching and the brain*. Corwin.

Hanson, J. L., Chandra, A., Wolfe, B. L., & Pollak, S. D. (2011). Association between income and the hippocampus. *PLOS ONE, 6*(5), e18712.

Hanushek, E. A. (2011). The economic value of higher teacher quality. *Economics of Education Review, 30,* 466–479.

Harding, D. J., Jencks, C., Lopoo L., & Mayer, S. (2005). The changing effects of family background on the incomes of American adults. In S. Bowles, H. Gintis, & M. Osborne Groves (Eds.), *Unequal chances: Family background and economic success* (pp. 100–144). Russell Sage Foundation.

Hardt, J., & Rutter, M. (2004). Validity of adult retrospective reports of adverse childhood experiences: Review of the evidence. *Journal of Child Psychology and Psychiatry, 45,* 260–273.

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children.* Paul H. Brookes.

Hart, W., Albarracin, D., Eagly, A. H., Brechan, I., Lindberg, M. J., & Merrill, L. (2009). Feeling validated versus being correct: A meta-analysis of selective exposure to information. *Psychological Bulletin, 135,* 555–588.

Hattie, J. A. (2012). *Visible learning for teachers: Maximizing impact on learning*. Routledge.

Hattie, J. A. (2022). *Visible learning MetaX database.* Corwin Visible Learning Plus. www.visiblelearningmetax.com/Influences

Hattie, J. A., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77,* 81–112.

Hattie, J. A., & Yates, G. (2013). *Visible learning and the science of how we learn*. Routledge.

Hegelund, E. R., Gronkjaer, M., Osler, M., Dammeyer, J., Flensborg-Madsen, T., & Mortensen, E. L. (2020, January). The influence of educational attainment on intelligence. *Intelligence, 78,* 101419.

Hofstetter, S., Tavor, I., Moryosef, S. T., & Assaf, Y. (2013). Short-term learning induces white matter plasticity in the fornix. *Journal of Neuroscience, 33*(31), 12844–12850.

Hollis, J. F., Gullion, C. M., Stevens, V. J., Brantley, P. J., Appel, L. J., Ard, J. D., et al. (2008). Weight loss during the intensive intervention phase of the weight-loss maintenance trial. *American Journal of Preventative Medicine, 35*(2), 118.

Hsen-Hsing, M. (2009). The effect size of variables associated with creativity. *Creativity Research Journal, 21*(1), 30–42.

Hughes, J. N. (2011). Longitudinal effects of teacher and student perceptions of teacher–student relationship qualities on academic adjustment. *Elementary School Journal, 112,* 38–60.

Hughes, M., & Tucker, W. (2018). Poverty as an adverse childhood experience. *North Carolina Medical Journal, 79,* 124–126.

Hus, Y. (2001). Early reading for low-SES minority language children: An attempt to "catch them before they fall." *Folia Phoniatrica et Logopaedica, 53,* 173–182.

Hussar, B., Zhang, J., Hein, S., Wang, K., Roberts, A., Cui, J., et al. (2020). *The condition of education 2020.* National Center for Education Statistics, U.S. Department of Education. https://nces.ed.gov/pubs2020/2020144.pdf

Ingersoll, R. M., Merrill, E., Stuckey, D., & Collins, G. (2018). *Seven trends: The transformation of the teaching force—Updated October 2018 (#RR 2018-2*). Consortium for Policy Research in Education, University of Pennsylvania. https://repository.upenn.edu/cgi/viewcontent.cgi?article=1109&context=cpre_researchreports

Jacob, A., & McGovern, K. (2015). *The mirage: Confronting the hard truth about our quest for teacher development.* TNTP. http://tntp.org/assets/documents/TNTP-Mirage_2015.pdf

Jednoróg, K., Altarelli, I., Monzalvo, K., Fluss, J., Dubois, J., Billard, C., et al. (2012). The influence of socioeconomic status on children's brain structure. *PLOS ONE, 7*(8), e42486.

Jeon, Y. K., & Ha, C. H. (2017). The effect of exercise intensity on brain derived neurotrophic factor and memory in adolescents. *Environmental Health and Preventive Medicine, 22*(1), 27.

Jones, E. E., Carter-Sowell, A. R., Kelly, J. R., & Williams, K. D. (2009). "I'm out of the loop": Ostracism through information exclusion. *Group Processes and Intergroup Relations, 12,* 157–174.

Jones, J. M. (2015, July 27). *Gallup poll: Drinking highest among educated, upper-income Americans.* https://news.gallup.com/poll/184358/drinking-highest-among-educated-upper-income-americans.aspx

Juárez Ramos, V. (2019). *Analyzing the role of cognitive biases in the decision-making process.* IGI Global.

Kaba, A. (2020). MacArthur Fellows, 1981–2018: Gender, race and educational attainment. *Sociology Mind, 10,* 86–126.

Kahneman, D. (2011). *Thinking, fast and slow.* Farrar, Straus & Giroux.

Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *The Journal of Economic Perspectives, 5,* 193–206.

Kahneman, D., Lovallo, D., & Sibony, O. (2011). Before you make that big decision. *Harvard Business Review, 89,* 50–60.

Kaiser Family Foundation. (2019). *State health facts: Poverty rate by race/ethnicity.* www.kff.org/other/state-indicator/poverty-rate-by-raceethnicity

Kang, C., Fu, Y., Wu, J., Ma, F., Lu, C., & Guo, T. (2017). Short-term language switching training tunes the neural correlates of cognitive control in bilingual language production. *Human Brain Mapping, 38,* 5859–5870.

Kanherkar, R. R., Bhatia-Dey, N., & Csoka, A. B. (2014). Epigenetics across the human lifespan. *Frontiers in Cell and Developmental Biology, 2,* 49.

Karlsson, N., Loewenstein, G., & Seppi, D. (2009). The ostrich effect: Selective attention to information. *Journal of Risk and Uncertainty, 38,* 95–115.

Kendi, I. X. (2019). *How to be an antiracist.* Random House.

Kenrick, D. T., Neuberg, S. L., Griskevicius, V., Becker, D. V., & Schaller, M. (2010). Goal-driven cognition and functional behavior: The fundamental-motives framework. *Current Directions in Psychological Science, 19*, 63–67.

Kidd, C., & Hayden, B. Y. (2015). The psychology and neuroscience of curiosity. *Neuron, 88*(3), 449–460.

Kidwell, S. L., Young, M. E., Hinkle, L. D., Ratliff, A. D., Marcum, M. E., & Martin, C. N. (2010). Emotional competence and behavior problems: Differences across preschool assessment of attachment classifications. *Clinical Child Psychology and Psychiatry, 15,* 391–406.

Kiecolt-Glaser, J. K., Gouin, J. P., & Hantsoo, L. (2010). Close relationships, inflammation, and health. *Neuroscience and Biobehavioral Reviews, 35,* 33–38.

Kirabo Jackson, C. (2012). *Non-cognitive ability, test scores, and teacher quality: Evidence from 9th grade teachers in North Carolina.* (NBER Working Paper 18624). National Bureau of Economic Research. www.nber.org/papers/w18624

Kitayama, S., & Uskul, A. K. (2011). Culture, mind, and the brain: Current evidence and future directions. *Annual Review of Psychology, 62,* 419–449.

Knowles, M. L., Lucas, G. M., Molden, D. C., Gardner, W. L., & Dean, K. K. (2010). There's no substitute for belonging: Self-affirmation following social and nonsocial threats. *Personality and Social Psychology Bulletin, 36,* 173–186.

Kong, F., Ma, X., You, X., & Xiang, Y. (2018). The resilient brain: Psychological resilience mediates the effect of amplitude of low-frequency fluctuations in orbitofrontal cortex on subjective well-being in young healthy adults. *Social Cognitive and Affective Neuroscience, 13,* 755–763.

Korn, C. W., Rosenblau, G., Rodriguez Buritica, J. M., & Heekeren, H. R. (2016). Performance feedback processing is positively biased as predicted by attribution theory. *PLOS ONE, 11*(2), e0148581.

Landry, S. P., & Champoux, F. (2017). Musicians react faster and are better multisensory integrators. *Brain and Cognition, 111,* 156–162.

Leitch, L. (2017). Action steps using ACEs and trauma-informed care: A resilience model. *Health Justice, 5,* 5.

Lewis, G. M. (2014). Implementing a reform-oriented pedagogy: Challenges for novice secondary mathematics teachers. *Mathematics Education Research Journal, 26,* 399–419.

Li, H. X., Long, Q. S., Chen, A. T., & Li, Q. (2019). The influence of reward motivation on emotion regulation. *Sheng Li Xue Bao, 71,* 562–574.

Libby, A. M., Orton, H. D., Beals, J., Buchwald, D., Manson S. M, & AI-SUPERPFP Team (2008). Childhood abuse and later parenting outcomes in two American Indian tribes. *Child Abuse & Neglect, 32*(2), 195–211.

Lim, S., & Eo, S. (2014). The mediating roles of collective teacher efficacy in the relations of teachers' perceptions of school organizational climate to their burnout. *Teaching and Teacher Education, 44,* 138–147.

Lindebaum, D., & Geddes, D. (2016). The place and role of (moral) anger in organizational behavior studies. *Journal of Organizational Behavior, 37,* 738–757.

Losen, D. J., & Martinez, T. E. (2013). *Out of school and off track: The overuse of suspensions in American middle and high schools*. Civil Rights Project.

Lyman, E. L., & Luthar, S. S. (2014). Further evidence on the "costs of privilege": Perfectionism in high-achieving youth at socioeconomic extremes. *Psychology in the Schools, 51,* 913–930.

Mackey, A. P., Singley, A. T. M., Wendelken, C., & Bunge, S. A. (2015). Characterizing behavioral and brain changes associated with practicing reasoning skills. *PLOS ONE, 10*(9).

Maier, S. F., & Seligman, M. E. (2016). Learned helplessness at fifty: Insights from neuroscience. *Psychological Review, 123,* 349–367.

Maier, S. F., & Watkins, L. R. (2010). Role of the medial prefrontal cortex in coping and resilience. *Brain Research, 1355,* 52–60.

Malle, B. F. (2011). Attribution theories: How people make sense of behavior. In D. Chadee (Ed.), *Theories in social psychology* (pp. 72–95). Wiley-Blackwell.

Martinez, F. (2021, September 30). Latinx files: The six Latinx "geniuses." *Los Angeles Times*. www.latimes.com/world-nation/newsletter/2021-09-30/latinx-files-macarthur-genius-fellows-latinx-files

Marzano, R. J. (2003). Building classroom relationships. *Educational Leadership, 61*(1), 6–13.

Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003). *Classroom management that works*. ASCD.

Masten, C. L., Telzer, E. H., & Eisenberger, N. I. (2011). An FMRI investigation of attributing negative social treatment to racial discrimination. *Journal of Cognitive Neuroscience, 23,* 1042–1051.

Masuda, N., & Fu, F. (2015). Evolutionary models of in-group favoritism. *F1000prime Reports, 7*(27).

Mayfield, V. (2020). *Cultural competence now: 56 exercises to help educators understand and challenge bias, racism, and privilege.* ASCD.

McAdams, D. P., & Guo, J. (2015). Narrating the generative life. *Psychological Science, 26*(4), 475–483.

McCormick, M. P., O'Connor, E. E., Cappella, E., & McClowry, S. G. (2013). Teacher–child relationships and academic achievement: A multilevel propensity score model approach. *Journal of School Psychology, 51,* 611–624.

McCoy, H. (2020, October). Black lives matter, and yes, you are racist: The parallelism of the twentieth and twenty-first centuries. *Child & Adolescent Social Work Journal, 37,* 463–475.

McIntosh, P. (1989). *White privilege: Unpacking the invisible knapsack.* https://psychology.umbc.edu/files/2016/10/White-Privilege_McIntosh-1989.pdf

McKinnon, R. D., Friedman-Krauss, A., Roy, A. L., & Raver, C. C. (2018). Teacher-child relationships in the context of poverty: The role of frequent school mobility. *Journal of Children and Poverty, 24,* 25–46.

McLaughlin, K. A., Weissman, D., & Bitrán, D. (2019). Childhood adversity and neural development: A systematic review. *Annual Review of Developmental Psychology, 1,* 277–312.

Meeusen, R. (2005). Exercise and the brain: Insight in new therapeutic modalities. *Annals of Transplantation, 10,* 49–51.

Mergelsberg, E. L. P., Mullan, B. A., Allom, V., & Scott, A. (2020, June 17). An intervention designed to investigate habit formation in a novel health behaviour. *Psychology & Health,* 1–22.

Merrick, M. T., Ford, D. C., Ports, K. A., & Guinn, A. S. (2018). Prevalence of adverse childhood experiences from the 2011–2014 behavioral risk factor surveillance system in 23 states. *JAMA Pediatrics, 172,* 1038–1044.

Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychological Bulletin, 130,* 711–747.

Miasnikov, A. A., Chen, J. C., Gross, N., Poytress, B. S., & Weinberger, N. M. (2008). Motivationally neutral stimulation of the nucleus basalis induces specific behavioral memory. *Neurobiology of Learning and Memory, 90,* 125–137.

Milne, S., Orbell, S. & Sheeran, P. (2002). Combining motivational and volitional interventions to promote exercise participation: Protection motivation theory and implementation intentions. *British Journal of Health Psychology, 7(Pt. 2),* 163–194.

Moffett, M. W. (2013). Human identity and the evolution of societies. *Human Nature, 24,* 219–267.

Moolenaar, N. M., Sleegers, P. J., & Daly, A. J. (2012). Teaming up: Linking collaboration networks, collective efficacy, and student achievement. *Teaching and Teacher Education, 28*(2), 251–262.

Morewedge, C. K., & Kahneman, D. (2010). Associative processes in intuitive judgment. *Trends in Cognitive Science, 14,* 435–440.

Moses, J. (2011, December). *The facts about Americans who receive public benefits.* Center for American Progress.

Nadal, K. (2018). *Microaggressions and traumatic stress: Theory, research, and clinical treatment*. American Psychological Association.

Nation's Report Card. (2019). *NAEP reading: National student group scores and score gaps.* www.nationsreportcard.gov/reading/nation/groups?grade=4

Nelson, B. D., & Hajcak, G. (2017). Defensive motivation and attention in anticipation of different types of predictable and unpredictable threat: A startle and event-related potential investigation. *Psychophysiology*, *54*(8), 1180–1194.

Niehaus, K., Rudasill, K. M., & Rakes, R. (2012). A longitudinal study of school connectedness and academic outcomes across sixth grade. *Journal of School Psychology, 50,* 443–460.

Nielson, K. A., & Bryant, T. (2005). The effects of non-contingent extrinsic and intrinsic rewards on memory consolidation. *Neurobiology of Learning and Memory, 84,* 42–48.

Noble, K. G., Houston, S. M., Brito, N. H., Bartsch, H., Kan, E., Kuperman, J. M., et al. (2015). Family income, parental education and brain structure in children and adolescents. *Nature Neuroscience, 18*(5), 773–778.

Noble, K. G., Houston, S. M., Kan, E., & Sowell, E. R. (2012). Neural correlates of socioeconomic status in the developing human brain. *Developmental Science, 15,* 516–527.

Noice, H., Noice, T., & Staines, G. (2014). A short-term intervention to enhance cognitive and affective functioning in older adults. *Journal of Aging and Health, 16,* 562–585.

Olejnik, S., & Algina, J. (2000). Measures of effect size for comparative studies: Applications, interpretations, and limitations. *Contemporary Educational Psychology, 25,* 241–286.

Ortega, L., Lyubansky, M., Nettles, S., & Espelage, D. L. (2016). Outcomes of a restorative circles program in a high school setting. *Psychology of Violence, 6,* 459–468.

Ortiz, R. (2019). Building resilience against the sequelae of adverse childhood experiences: Rise up, change your life, and reform health care. *American Journal of Lifestyle Medicine, 13,* 470–479.

Ozubko, J. D., & Fugelsang, J. (2011). Remembering makes evidence compelling: Retrieval from memory can give rise to the illusion of truth. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 37*(1), 270–276.

Pappa, K., Biswas, V., Flegal, K. E., Evans, J. J., & Baylan, S. (2020). Working memory updating training promotes plasticity & behavioural gains: A systematic review & meta-analysis. *Neuroscience & Biobehavioral Reviews, 18,* 209–235.

Parker, E. A., Feinberg, T. M., Lane, H. G., Deitch, R., Zemanick, A., Saksvig, B. I., et al. (2020). Diet quality of elementary and middle school teachers is associated with healthier nutrition-related classroom practices. *Preventive Medicine Reports, 18,* 101087.

Patall, E. A., Cooper, H., & Robinson, J. C. (2008). The effects of choice on intrinsic motivation and related outcomes: A meta-analysis of research findings. *Psychological Bulletin, 134,* 270–300.

Plomin, R., & Deary, I. J. (2015). Genetics and intelligence differences: Five special findings. *Molecular Psychiatry, 20,* 89–108.

Pohl, R. F. (Ed.) (2004). *Cognitive illusions: A handbook on fallacies and biases in thinking, judgement and memory*. Psychology Press.

Pontifex, M. B., Gwizdala, K. L., Parks, A. C., Pfeiffer, K. A., & Fenn, K. M. (2016). The association between physical activity during the day and long-term memory stability. *Scientific Reports, 6,* 38148.

Powers, J. T., Cook, J. E., Purdie-Vaughns, V., Garcia, J., Apfel, N., & Cohen, G. L. (2016). Changing environments by changing individuals: The emergent effects of psychological intervention. *Psychological Science, 27,* 150–160.

Pronin, E., Lin, D. Y., & Ross, L. (2002). The bias blind spot: Perceptions of bias in self versus others. *Personality and Social Psychology Bulletin, 28,* 369–381.

Purpura, D. J. (2019, October). Language clearly matters; Methods matter too. *Child Development, 90*(6), 1839–1846.

Quaedflieg, C., & Schwabe, L. (2018, March). Memory dynamics under stress. *Memory, 26*(3), 364–376.

Quevedo, K., Waters, T. E., Scott, H., Roisman, G. I., Shaw, D. S., & Forbes, E. E. (2017). Brain activity and infant attachment history in young men during loss and reward processing. *Development and Psychopathology, 29,* 465–476.

Raphael, D. (2011). Poverty in childhood and adverse health outcomes in adulthood. *Maturitas, 69,* 22–26.

Ratey, J. J. (2008). *Spark: The revolutionary new science of exercise and the brain*. Little, Brown and Company.

Rea, K., Dinan, T. G., & Cryan, J. F. (2016). The microbiome: A key regulator of stress and neuroinflammation. *Neurobiology of Stress, 4,* 23–33.

Reeves, R. V., & Sawhill, I. V. (2014). *Equality of opportunity: Definitions, trends, and interventions.* Conference paper presented at the 58th Economic Conference, Federal Reserve Bank of Boston, October 2014. www.bostonfed.org/inequality2014/papers/reeves-sawhill.pdf

Ritchie, S. J., & Tucker-Drob, E. M. (2018). How much does education improve intelligence? A meta-analysis. *Psychological Science, 29,* 1358–1369.

Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005, March). Teachers, schools, and academic achievement. *Econometrica, 73*(2), 417–458.

Robinson-Cimpian, J. P., Lubienski, S. T., Ganley, C. M., & Copur-Gencturk, Y. (2014). Teachers' perceptions of students' mathematics proficiency may exacerbate early gender gaps in achievement. *Developmental Psychology, 50,* 1262–1281.

Roebroeks, W., & Soressi, M. (2016). Neanderthals revised. *Proceedings of the National Academy of Sciences of the United States of America, 113,* 6372–6379.

Roorda, D. L., Koomen, H. M. Y., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research, 81*(4), 493–529.

Roos, L. E., Knight, E. L., Beauchamp K. G., Berkman, E. T., Faraday, K., Hyslop, K., & Fisher, P. A. (2017). Acute stress impairs inhibitory control based on individual differences in parasympathetic nervous system activity. *Biological Psychology, 125,* 58–63.

Rosenbaum, D. (2013). *The relationship between SNAP and work among low-income households.* Center on Budget and Household Priorities.

Rudasill, K. M. (2011). Child temperament, teacher–child interactions, and teacher–child relationships: A longitudinal investigation from first to third grade. *Early Childhood Research Quarterly, 26,* 147–156.

Rutter, M., Moffitt, T. E., & Caspi, A. (2006). Gene-environment interplay and psychopathology: Multiple varieties but real effects. *Journal of Child Psychology and Psychiatry, 47*(3–4), 226–261.

Schlegel, A. A., Rudelson, J. J., & Tse, P. U. (2012). White matter structure changes as adults learn a second language. *Journal of Cognitive Neuroscience, 24,* 1664–1670.

Schwanhäusser, B., Busse, D., Li, N., Dittmar, G., Schuchhardt, J., Wolf, J., et al. (2011). Global quantification of mammalian gene expression control. *Nature, 473,* 337–342.

Schweiger, G. (2019). Ethics, poverty and children's vulnerability. *Ethics & Social Welfare, 13,* 288–301.

Shaffer, M. L. (2019). Impacting student motivation: Reasons for not eliminating extracurricular activities. *Journal of Physical Education, Recreation & Dance, 90,* 8–14.

Sheehy-Skeffington, J. (2020). The effects of low socioeconomic status on decision-making processes. *Current Opinion in Psychology, 33,* 183–188.

Slater, J., Strait, D. L., Skoe, E., O'Connell, S., Thompson, E., & Kraus, N. (2014). Longitudinal effects of group music instruction on literacy skills in low-income children. *PLOS ONE, 19*(11), e113383.

Smaldino, P. E. (2019). Social identity and cooperation in cultural evolution. *Behavioural Processes, 161,* 108–116.

Sneve, M. H., Grydeland, H., Amlien, I. K., Langnes, E., Walhovd, K. B., & Fjell, A. M. (2017). Decoupling of large-scale brain networks supports the consolidation of durable episodic memories. *Neuroimage, 153,* 336–345.

Sowell, E. R., Peterson, B. S., Thompson, P. M., Welcome, S. E., Henkenius, A. L., & Toga, A. W. (2003). Mapping cortical change across the human life span. *Nature Neuroscience, 6,* 309–315.

Sperry, D. E, Sperry, L. L, & Miller, P. J. (2019a). Language does matter: But there is more to language than vocabulary and directed speech. *Child Development, 90*(3), 993–997.

Sperry D. E., Sperry, L. L., & Miller, P. J. (2019b). Reexamining the verbal environments of children from different socioeconomic backgrounds. *Child Development, 90*(4), 1303–1318.

Spilt, J. L., & Koomen, H. M. (2009). Widening the view on teacher-child relationships: Teachers' narratives concerning disruptive versus nondisruptive children. *School Psychology Review, 38,* 86–101.

Sripada, R. K., Swain, J. E., Evans, G. W., Welsh, R. C., & Liberzon, I. (2014). Childhood poverty and stress reactivity are associated with aberrant functional connectivity in default mode network. *Neuropsychopharmacology, 39,* 2244–2251.

Stallen, M., De Dreu, C. K., Shalvi, S., Smidts, A., & Sanfey, A. G. (2012). The herding hormone: Oxytocin stimulates in-group conformity. *Psychological Science, 23,* 1288–1292.

Stankov, L., & Lee, J. (2020). We can boost IQ: Revisiting Kvashchev's experiment. *Journal of Intelligence, 8*(4), 41.

Stanley, D. A., & Adolphs, R. (2013). Toward a neural basis for social behavior. *Neuron, 80*(3), 816–826.

Stearns, E., Banerjee, N., Mickelson, R., & Moller, S. (2014). Collective pedagogical teacher culture, teacher-student ethno-racial mismatch, and teacher job satisfaction. *Social Science Research, 45,* 56–72.

Stein, G. L., Supple, A. J., Huq, N., Dunbar, A. S., & Prinstein, M. J. (2016). A longitudinal examination of perceived discrimination and depressive symptoms in ethnic minority youth: The roles of attributional style, positive ethnic/racial affect, and emotional reactivity. *Developmental Psychology, 52,* 259–271.

Steinert, Y., O'Sullivan, P. S., & Irby, D. M. (2019). Strengthening teachers' professional identities through faculty development. *Academic Medicine, 94,* 963–968.

Stemmann, H., & Freiwald, W. A. (2019). Evidence for an attentional priority map in inferotemporal cortex. *Proceedings of the National Academy of Sciences*, *116*, 23797–23805.

Stillman, T. F., Baumeister, R. F., Lambert, N. M., Crescioni, A. W., DeWall, C. N., & Fincham, F. D. (2009). Alone and without purpose: Life loses meaning following social exclusion. *Journal of Experimental Social Psychology, 45,* 686–694.

Substance Abuse and Mental Health Services Administration. (2015). *Treatment episode data set (TEDS): 2003–2013: National admissions to substance abuse treatment services.* Author.

Suzuki, W. A., Feliú-Mójer, M. I., Hasson, U., Yehuda, R., & Zarate, J. M. (2018). Dialogues: The science and power of storytelling. *Journal of Neuroscience, 38,* 9468–9470.

Taylor, J., Roehrig, A. D., Soden Hensler, B., Connor, C. M., & Schatschneider, C. (2010). Teacher quality moderates the genetic effects on early reading. *Science, 328,* 512–514.

Teixeira-Machado, L., Arida, R. M., & de Jesus, M. J. (2019). Dance for neuroplasticity: A descriptive systematic review. *Neuroscience & Biobehavioral Reviews, 96,* 232–240.

Thomas, C. R., & Gadbois, S. A. (2007). Academic self-handicapping: The role of self-concept clarity and students' learning strategies. *British Journal of Educational Psychology, 77,* 101–119.

TNTP. (2018). The opportunity myth: What students can show us about how school is letting them down—and how to fix it. https://tntp.org/publications/view/student-experiences/the-opportunity-myth

Tomalski, P., Moore, D. G., Ribeiro, H., Axelsson, E. L., Murphy, E., & Karmiloff-Smith, A. (2013). Socioeconomic status and functional brain development—Associations in early infancy. *Developmental Science, 16*(5), 676–687.

Tomayko, E. J., Mosso, K. L., Cronin, K. A., Carmichael, L., Kim, K., Parker, T., et al. (2017). Household food insecurity and dietary patterns in rural and urban American Indian families with young children. *BMC Public Health, 30,* 611.

Tucker-Drob, E. M. (2012). Preschools reduce early academic-achievement gaps: A longitudinal twin approach. *Psychological Science, 23,* 310–319.

Tucker-Drob, E. M., & Bates T. C. (2016). Large cross-national differences in gene × socioeconomic status interaction on intelligence. *Psychological Science, 27,* 138–149.

U.S. Census Bureau. (2020, Sept. 15). Income, poverty, and health insurance coverage in the United States. www.census.gov/newsroom/press-releases/2020/income-poverty.html

U.S. Department of Education Office for Civil Rights. (2018). *2015–16 Civil Rights Data Collection: School Climate and Safety*. Author.

Voss, J. L., Gonsalves, B. D., Federmeier, K. D., Tranel, D., & Cohen, N. J. (2011). Hippocampal brain-network coordination during volitional exploratory behavior enhances learning. *Nature Neuroscience, 14,* 115–120.

Vrtička, P., & Vuilleumier, P. (2012). Neuroscience of human social interactions and adult attachment style. *Frontiers in Human Neuroscience, 17,* 212.

Wallace, J. M., Jr., Goodkind, S., Wallace, C. M., & Bachman, J. G. (2008). Racial, ethnic, and gender differences in school discipline among U.S. high school students: 1991–2005. *Negro Educational Review, 59,* 47–62.

Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science, 331,* 1447–1451.

Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin, 132,* 249–268.

Wei, P., & Kang, G. (2014, June). Task relevance regulates the interaction between reward expectation and emotion. *Experimental Brain Research, 232*(6), 1783–1791.

Weisburg, D., Sexton, S., Mulhern, J., & Keeling, D. (2009). *The widget effect: Our national failure to acknowledge and act on differences in teacher effectiveness*. TNTP.

Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives, 10,* 1–30.

Wentzel, K. R. (2012). Teacher-student relationships and adolescent competence at school. In T. Wubbels, P. den Brok, & J. van Tartwijk (Eds.), *Interpersonal Relationships in Education* (pp. 19–36). Sense Publishers.

West, R. F., Meserve, R. J., & Stanovich, K. E. (2012). Cognitive sophistication does not attenuate the bias blind spot. *Journal of Personality and Social Psychology, 103*(3), 506–519.

White, S. F., Voss, J. L., Chiang, J. J., Wang, L., McLaughlin, K. A., & Miller, G. E. (2019, December). Exposure to violence and low family income are associated with heightened amygdala responsiveness to threat among adolescents. *Developmental Cognitive Neuroscience, 40,* 100709.

Wiehle, M., Davis, A., Davis, C., Gardner, M., Gee, L. C., & Grundman, D. (2013). *Who pays? A distributional analysis of the tax systems in all 50 states.* Institute on Taxation & Economic Policy. https://itep.org/whopays/

Wiliam, D., & Thompson, M. (2008). Integrating assessment with learning: What will it take to make it work? In C. A. Dwyer (Ed.), *The Future of Assessment: Shaping Teaching and Learning* (pp. 53–82). Routledge.

Williams, A. S., Ge, B., Petroski, G., Kruse, R. L., McElroy, J. A., & Koopman, R. J. (2018). Socioeconomic status and other factors associated with childhood obesity. *Journal of American Board of Family Medicine, 31,* 514–521.

Wilson, D., Jones, D., Bocell, F., Crawford, J., Kim, M. J., Veilleux, N., et al. (2015). Belonging and academic engagement among undergraduate STEM students: A multi-institutional study. *Research in Higher Education, 7,* 750–776.

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: A meta-analysis of educational feedback research. *Frontiers in Psychology, 10,* 3087.

Wood, W., Quinn, J. M., & Kashy, D. A. (2002). Habits in everyday life: Thought, emotion, and action. *Journal of Personality and Social Psychology, 83,* 1281–1297.

Yang, J. J., Zhan, L. X., Wang, Y. Y., Du, X. Y., Zhou, W. X., Ning, X. L., et al. (2016). Effects of learning experience on forgetting rates of item and associative memories. *Learning & Memory, 23,* 365–378.

Yeager, D. S., Purdie-Vaughns, V., Garcia, J., Apfel, N., Brzustoski, P., Master, A., et al. (2014). Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide. *Journal of Experimental Psychology: General, 143,* 804–824.

Yeager, D. S., Purdie-Vaughns, V., Hooper, S. Y., & Cohen, G. L. (2017). Loss of institutional trust among racial and ethnic minority adolescents: A consequence of procedural injustice and a cause of life-span outcomes. *Child Development, 88,* 658–676.

Yeager, D. S., & Walton, G. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research, 81,* 267–301.

Yeates, P., Woolf, K., Benbow, E., Davies, B., Boohan, M., & Eva, K. (2017). A randomised trial of the influence of racial stereotype bias on examiners' scores, feedback and recollections in undergraduate clinical exams. *BMC Medicine, 15,* 179.

Yoon, J. S. (2002). Teacher characteristics as predictors of teacher-student relationships: Stress, negative affect, and self-efficacy. *Social Behavior and Personality, 30,* 485–493.

Zuckerman, M., & Tsai, F. F. (2005). Costs of self-handicapping. *Journal of Personality, 73,* 411–442.

Zwosta, K., Ruge, H., Goschke, T., & Wolfensteller, U. (2018). Habit strength is predicted by activity dynamics in goal-directed brain systems during training. *Neuroimage, 165,* 125–137.

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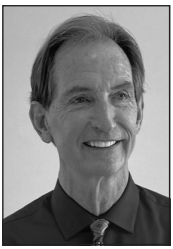

Eric Jensen is a former teacher who grew up in San Diego, California. Jensen's academic background includes an MA in Organizational Development and a PhD in Human Development. He embraces evidence-based practices from neuroscience to the classroom. Jensen cofounded the first and largest brain-compatible learning program, held in 14 countries with more than 80,000 graduates. He has written more than 30 books, including *Engaging Students with Poverty in Mind, Teaching with the Brain in Mind, Brain-Based Learning, Enriching the Brain,* and *Poor Students, Rich Teaching*.

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