

# The Breakthrough Years

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A New Scientific  
Framework for  
Raising Thriving Teens

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# INTRODUCTION

## “Just Wait”

I remember holding my newborn son in a rocking chair when he came home from the hospital.

A friend who had come over to welcome him to the world was the first to say this to me, soon after admiring him: “Just wait until he’s a teenager!”

As a new parent—like any new parent—there were times when I was frantic with worry, especially because my son was born prematurely. What if he wasn’t going to be healthy and strong? What if he wasn’t going to develop like other children? Now there was a “just wait” decree looming over our future like a jail sentence.

This “just wait” warning was repeated again and again. It seemed as if any time I felt the wonder or the pressure of parenting—exulted in my son or struggled with parenting him—others felt they should warn me about the tumultuous future in store: “Just wait until he’s a teenager!”

Well-meaning friends and strangers did the same with my daughter a few years later. At key moments, such as when she pulled herself up on her feet and launched herself out into the world with her first tottering steps, or when she was a defiant preschooler, I’d hear: “Just wait until she’s a teenager—see what trouble she walks into then!”

## Storm and Stress

More than a hundred years ago, there was no such thing as adolescence as we now know it. For example, many of my relatives in the nineteenth century went straight from childhood into assuming the responsibilities of adulthood.

By the turn of the twentieth century that had changed. Most of my relatives didn’t take jobs in their teens; they stayed in school longer and entered the workforce later. During that time, the idea of adolescence as a distinct period of life began to take a stronger hold,<sup>1</sup> and in 1904 the scientific study of adolescence was born with the publication of a two-volume work by G. Stanley Hall.<sup>2</sup> Its focus was on storm and stress. The theme of turbulence—the first formal attempt to understand this unique period of life—has continued to permeate popular perception. Thus, those “just wait” warnings we’ve heard for so long.

By the turn of the twenty-first century, researchers' focus began to shift away from the perils and toward the promise of adolescence, especially as the tools of science became more precise<sup>3</sup> and as the Positive Youth Development movement spread.<sup>4</sup>

## The Promise of Adolescence

We now know that **adolescence is a sensitive period in brain development**—almost as important as the foundational early years. Though the span of years covered by adolescence differs in different parts of the world, its beginning is usually marked by puberty and its ending by the assumption of adult responsibilities, which is in the mid-twenties in the United States. Adolescents so defined make up almost one-quarter of the U.S. population.<sup>5</sup>

During adolescence, **there is heightened brain plasticity with extensive neural change**. Like the early years, adolescence is a time when we're especially affected by the environments we're in.<sup>6</sup>

Decades of research also reveal that there is a set of core attention-regulation skills, called executive function (EF) skills, that are often more important to our school and lifetime success than our IQ or socioeconomic status.<sup>7</sup> These skills emerge during early childhood, and that's when they should be first promoted—the subject of my last book, *Mind in the Making: The Seven Essential Skills Every Child Needs*.

But we can't stop there. Like the early years, **adolescence is a prime time for learning executive function skills**. The superhighways of the brain are under construction during adolescence.<sup>8</sup> The prefrontal regions—central to executive function—develop significantly. There's also improved connectivity between the outer cortical regions (areas linked to cognitive control) and inner cortical regions (areas linked to emotional responses, rewards, and learning).<sup>9</sup>

Researchers call **adolescence an age of opportunity and vulnerability**<sup>10</sup> because our development can begin to go in a more positive or a more negative direction during these years.

## The Societal Challenges We Face

There are many very real challenges that confront us in raising adolescents today. **One is the increase in mental health problems**. In 2021, the Centers

for Disease Control and Prevention found that 42 percent of high school students reported experiencing such persistent feelings of sadness or hopelessness in the past year that they couldn't participate in their regular activities, up from 28 percent in 2011.<sup>11</sup> Findings like these are especially alarming because we know that the majority of mental health issues emerge by the time we are twenty-four.<sup>12</sup>

**Another challenge is school achievement.** School achievement dropped during the pandemic, but it has been historically uneven,<sup>13</sup> and pressures to achieve can be punishing.

Much of public discourse focuses on who's to blame. Has social media changed children's brains? Is it a pressure-filled achievement culture? Is it the divisiveness and loneliness of life today?

This book is quite different from most books and articles you will read about adolescence:

- While most concentrate on one of these challenges or another, this book ties them together.
- While most concentrate on blaming, this book goes beyond who's at fault to concentrate on **breakthrough solutions** that come from the latest science on the brain and psychological development and from young people themselves! It focuses on how we can equip adolescents with environments that meet their needs and promote life and learning skills that help them learn and thrive.

And that's the urgency. **These years between childhood and adulthood are *the time*** where we have opportunities to help set up young people for success now and in the future. These years can be a time when young people begin to discover who they are, what has meaning for them, what they are good at, how they can manage challenges. These years can even be a time of recovery, when it's possible to heal from early adversities. Adolescence is a time of enormous possibility.

My close friend Karen Diamond handed me a note as I was writing this book. On it, she wrote:

*What kind of world will we leave our children?*

And . . .

*What kind of children will we leave our world?*

These questions fuel the passion I have in writing this book. It's that simple and that true.

## My Research Adventures

I practice a form of science called civic science. In civic science, the people who would traditionally be the subjects of a study become its co-creators and collaborators, drawing on their life experiences to inform the questions that are asked, the study design, and the interpretation of the findings.

In 2015, I began with adolescents from across the United States and abroad, asking 38 fourteen- to eighteen-year-olds in focus groups and interviews: “What do you want to know about your own development? And what do you want me to ask researchers who study adolescent development when I interview them?”\* Some said they wanted to know:

*Why don't adults understand us?*

*Why do adults have such negative views of teenagers?*

You've probably heard the young people in your life ask questions like: “Why don't you understand me?”

But maybe—just maybe—there's something deeper here than teens merely being teens. That's why I think of research as an adventure. It takes you places you don't know you are going.

I called the study “The Breakthrough Years” because of the enormous promise of these years to shape positive development. It is clear that most of us don't understand normal adolescent development, which in turn seriously inhibits our ability to help young people be and become all they can be.

Over the next years, I interviewed forty-five leading adolescence researchers and read studies by hundreds of others. Their cutting-edge findings and inspiring insights (which for the most part appear in hard-to-access academic books, articles, and journals) are distilled in these pages.

In 2019, our research team\*\* and I conducted a baseline quantitative

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\* My then college-age grandson Antonio participated in some of these focus groups and interviews with me, and his take on what he'd heard was invaluable.

\*\* Our research team includes Brandon Almy, then a doctoral student on adolescent development at the University of Minnesota, now a pediatric neuropsychologist at Helen DeVos Children's Hospital in Grand Rapids, Michigan, and Philip David Zelazo, a developmental social cognitive neuroscientist at the University of Minnesota. Our Families and Work Institute (FWI) team includes Erin Ramsey, Jennie Portnof, and Marline Griffith; they began this work at FWI, were with

study of a nationally representative group of 1,666 adolescents (nine- to nineteen-year-olds)\* and their parents. The following summer, I conducted qualitative interviews with fifty-six parents and fifty-two of their adolescents from this group, asking them about their take on the initial findings as well as new questions that had emerged.

Then the pandemic happened, and we conducted a follow-up quantitative study with 1,115 of these same parents and their children in August 2020 to see how they were doing. Our team additionally designed a behavioral study that included an assessment of executive function skills with 223 young people (sixth, ninth, and twelfth graders) in nine schools in six states between November 2019 and January 2020.

Among the questions we asked young people in the baseline study was: “What would you like to tell the adults of America about people your age?”

The five main things they want us to know—their messages to adults—align remarkably with the new science of adolescence as well as with parents’ hopes and dreams. These messages form both the structure of the book and its unique contributions. Below are a few highlights.

## Message 1: Understand Our Development

In response to the open-ended question about what they want to tell the adults of America, **one in five of the young people (21 percent) want adults to know that we don’t understand their way of being smart and their development.** Again and again, they wrote: “We are smarter than you think,” “Just because we are younger doesn’t mean we are less smart,” and “We are smart and we need to be heard.” They wrote, “Understand me, understand us.”

How do adults understand adolescents? In the baseline study, we asked parents an open-ended question to find out more:

*When you hear the phrase “the teen brain,” or “the adolescent brain,” what one word comes to mind?*

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me when I served as chief science officer at the Bezos Family Foundation for six years, and are back at FWI with me again.

\* *The Breakthrough Years* defines adolescence as beginning in puberty, which is happening earlier in current generations than in the past. Thus, we began our study with nine-year-olds. Adolescence encompasses the teen years (thirteen to nineteen) but extends until young people assume some of the responsibilities of adulthood. Our study stopped with nineteen-year-olds, but I also share research on older adolescents in their twenties.

We weren't asking about their own child's brain, but about the generic adolescent brain. We found:

- Only 14 percent of parents used *positive* terms, like “exploring,” “creative,” “fun,” or “the future.”
- Another 27 percent used *neutral* terms, like “growing” or “changing.”
- And 59 percent used *negative* terms, like “forgetful,” “stupid,” “clueless,” “distracted,” “know-it-all,” or “bratty.”

Further insight comes when we look at the actual words that parents use to describe the adolescent/teen brain. The most frequent word? “Immature.” It's used 11 percent of the time. That's a remarkable convergence for an open-ended question. Another 8 percent use “un-,” “in-,” or “not” words, including:

unformed  
undeveloped/underdeveloped  
unfinished  
incomplete  
inexperienced  
not thinking/not smart

**These words indicate that many adults are using an adult yardstick to assess adolescents and are finding them lacking.**

Perhaps this conception hearkens back to that earlier era I mentioned, when people moved straight from childhood into adulthood. Perhaps it's because young people can look adultlike, so we assess them based on appearances. Or perhaps our adult experiences cloud our memories of what it was really like to be a teen. There are many reasons.

But young people aren't adults. We wouldn't say that infants are immature toddlers when they experience stranger anxiety in learning whom to trust or that toddlers are immature preschoolers when they say “no, no, no” in learning what they can and can't control. Children at these younger ages are doing exactly what they are developmentally primed to do—what they need to do for their brains to develop.

Yet too many of us seem to think about our adolescents as immature adults, even though they, like younger children, are doing exactly what their brains are priming them to do (and by the way, this was true in earlier eras when there was little societal demarcation of adolescence):

- They are moving further out into the world, so they need to be highly sensitive to social and emotional situations.
- They need to become environmental detectors to determine what's okay and what's worrisome, and to react strongly because their parents aren't necessarily there to help them.
- They need to explore their identities and what it means to be and become them. So they're highly sensitive to what matters to them, and to experiences where they can begin to figure this out.

Our lack of understanding can affect how we respond to and talk with adolescents and can have longer-term repercussions, as this message from a seventeen-year-old girl in our survey reveals:

*I wish my concerns, my friends' concerns, and my classmates' concerns could be taken seriously.*

*I can't count the number of times I have tried to talk to an adult about something that's been causing me pain. (Usually emotional pain.) It's easily dismissed because, "everybody goes through it, you'll be fine." I feel this is an improper, disrespectful, trust-destroying phrase to use. Its variations are equally harmful. Telling me my problems aren't problematic solely because somebody else has experienced the same thing is wrong. It's simply wrong. The same kind of damage is caused by "at least you don't have [fill in the blank]." Invalidating somebody's feelings because their pain isn't critical is the most selfish thing I see in the lives of the people around me. Empathy, sympathy, and love is the proper response. I don't see enough love in the lives of anybody I know. Selfishness is there, even if selfishness [by others] was never the intention.*

*Because the problems of teenagers are not being taken seriously, we put up a facade. We smile and nod and nod and smile, but inside, there is pain. "That's just your hormones! You'll get over it." "Everybody goes through it." But even if everybody goes through it, nobody should face the problem alone. Why isolate a struggling person? My confidence in my parents has gotten weaker and weaker. I know this is "a rebellious phase all teenagers go through." If "rebellious" means standing up for myself, then I will be rebellious. If it means that my little brothers get to keep their glimmers of hope, if it means my little sisters get to feel loved, then I will keep on being "rebellious." Half a decade of my feelings being disregarded has taken its toll. Half a decade of being told "You're fine" right before I*

*melt down and cry for an hour has made its mark. A lifetime of “It’ll be better tomorrow” has lied time and time again.*

When we understand adolescents and their development, we can talk with them in more effective ways, as their next message reveals.

## **Message 2: Listen and Talk *with Us*, Not *at Us***

One in twelve adolescents (9 percent) ask adults to listen and to talk *with* them. They wrote, “Ask our opinions and *listen to us please!*” And they’re right. When conflicts between adults and adolescents do erupt, the most effective approach is called autonomy support. This approach:

- Gives adolescents an appropriate measure of autonomy and agency—basic developmental needs during these years
- Helps adolescents learn how to resolve problems for themselves, rather than have the adults fix problems for them

It’s also effective for adults because they set the goal and the ground rules, and they’re helping their adolescent gain skills and experience while the immediate problem is getting resolved.

Why does this approach work so well for managing conflict? Studies find that an autonomy-supportive approach aids the development of executive function skills<sup>14</sup> and helps young people thrive<sup>15</sup> by building their own self-regulation skills (rather than imposing regulation by punishing them, coaxing compliance, or fixing things for them).

But autonomy support is not enough. Mindsets matter.

A Possibilities Mindset is a growth mindset (“Things can change”) plus self-efficacy (“I can make a change”).<sup>16</sup> It’s a wondering response (versus feeling threatened) where we see the obstacles and believe we can figure out how to overcome them.

## **Message 3: Don’t Stereotype Us**

When asked what they want to tell the adults of America, young people wrote that not all of us are in trouble or doing the things you’d expect people our age to be doing. For example:

Taking *unhealthy risks*: “We are not all TikTokking risk-takers.”

Taking *drugs*: “Not all of us fall under the umbrella of being problematic drug addicts.”

Being *entitled*: “We have a lot more to offer the world than many of you see. Sometimes it feels like every adult thinks my generation is nothing more than a bunch of entitled brats that want everything given to them.”

Being *troublemakers*: “All kids aren’t troublemakers or irresponsible.”

Being *addicted to technology*: “We aren’t social media obsessed, we aren’t extremely self-involved, our phones don’t define us, and the internet is not going to be the end of us.”

There are two underlying themes in their words. The first is: “Don’t judge us all by the actions of a few.” The second is: “Don’t see us all in such a negative light.” **In fact, more than one in three adolescents (38 percent)—the largest proportion of adolescents in the study—ask adults not to generalize, make negative assumptions, or stereotype them, but instead to recognize their strengths.**

Our study found that age discrimination is more commonplace than one might think. Using a standard measure of discrimination that asks about the frequency of people acting as if they are better than you, treating you as if you aren’t smart, and so forth,<sup>17</sup> we found that age is the most frequent reason given for six of the nine types of discrimination among the 73 percent of young people who’d experienced any type of discrimination at least a few times.

It may have always been this way, but what’s now clear is that there’s a developmental price. Studies show that discrimination because of age (or any other reason) can affect adolescents’ physical health, their sleep, and their psychological well-being.<sup>18</sup>

## **Message 4: We Are Trying to Understand Ourselves and Our Needs**

When we hear the words “belonging,” “support,” “respect,” and “contribution,” they can slide over us—that is, until we’re the ones treated as if we don’t belong, don’t deserve respect, or can’t make a difference in our own way. These are Basic Needs we all have, at all ages—especially during the formative years of adolescence. The concept of Basic Needs is based on decades of research into Self-Determination Theory,<sup>19</sup> revealing how psychological needs are connected with our well-being and thriving.<sup>20</sup> In our studies, we expanded that concept, outlining five needs.

### ***The Five Basic Psychological Needs***

1. Caring connections
2. Agency
3. Mastery
4. Identity
5. Purpose

In our baseline study, we tested the extent to which these needs were met through adolescents' relationships (at home, with friends, at school, in out-of-school activities, and online). In the follow-up study, we found that those adolescents whose needs had been met were much more likely to be doing well in school and in life nine months later. "Nine months later" happened to occur during a very difficult and trying time in this country—the COVID-19 pandemic—so it was a strong test of the importance of meeting needs. This finding is especially relevant given what we know about the vulnerabilities of the adolescent years, and the declines our society has been experiencing in the mental health of young people. Meeting these needs helps adolescents thrive!

### **Message 5: We Want to Learn Life and Learning Skills**

Generally, we think of adolescence as the time for learning the academic content that young people will need to know as they begin to take their places in the adult world. That's absolutely essential, but as stated above, executive function skills are foundational for learning, adaptation, and a positive life. These skills are as—if not more—important to our academic and life success and to well-being than our IQ or socioeconomic status. But, as one educational leader recently told me, if he was in a room of superintendents or principals and asked them if they knew what executive function skills are, very few would raise their hands—or if they did, they would associate them with learning struggles like ADHD. This is all the more concerning because a population study in Massachusetts found that EF skills have declined significantly during the pandemic,<sup>21</sup> which may be contributing in major ways to learning losses. This education leader continued, "This is not about some of our children. This is most of our children!"

In this book, I describe EF skills and Life and Learning Skills based on them:

### ***Life and Learning Skills***

- Setting and achieving goals
- Understanding the perspectives of others
- Communicating and collaborating
- Problem-solving
- Taking on challenges

To help young people learn and thrive, it is essential that we promote these skills.

*The Breakthrough Years* is not a typical book about adolescents because it's not a bad-news book, but it's not a good-news book, either. Because I am a parent and grandparent and am always thinking about what to do, I've written it as a real-news book—with news you can use, weaving together the often awe-inspiring wisdom and experiences of adolescents and parents with research- and reality-based principles and strategies for helping adolescents thrive.

I deeply hope that sharing this real news will lead to fewer of us being forewarned, “Just wait until they're teenagers” (as we found 61 percent of parents are), and more of us recognizing these years for the breakthrough years they are.

So, let's begin with the adolescent brain. . . .