

## Twice Exceptional

### *A Nontraditional View of Giftedness*

*What makes a child gifted and talented may not  
always be good grades in school, but a different way of  
looking at the world and learning.*

*Chuck Grassley, senator*

Our future is in jeopardy, and our gifted children are among our best hopes for solving the myriad problems humanity faces. These children are some of our most vital human and national resources. They hold keys to keeping America globally viable, culturally rich, and economically competitive.

When you think of a “gifted” child, the image you conjured in your mind may be quite different from the way you imagine your child. Gifted children are commonly pictured as academically successful, well behaved in class, a bit nerdy or bookish, well organized and easy to teach, natural learners who will succeed regardless of the level of instruction. They are also expected to develop intellectually and emotionally at the same rate; they are thus perceived to be more mature than their peers of average ability. Perhaps the most damaging myth about gifted children is that they are able to achieve in any learning environment and that their high IQs insulate them from academic failure. In short, because they are bright, they are expected to achieve.

We believe that any definition of giftedness must move beyond the idea of academic achievement and excellence to embrace the broad spectrum of unique abilities and talents inherent in gifted children. According to the National Association for Gifted Children (NAGC), many “children demonstrate high performance or have the potential to do so” in one or more areas of expression.<sup>1</sup> This broad definition of giftedness includes *potential* as well as achievement and goes beyond such traditional academic content areas as mathematics or language to embody expressions of intellectual, creative, and leadership abilities.

Despite their unquestionable value to America’s future, gifted children, especially the twice exceptional, are among the most neglected groups of students in our nation’s education system. Without their unique perspectives and abilities, we as a nation, and perhaps as a species, are at risk for failure. However, as a group, these children are failing miserably because our education and mental health systems are failing them.

## Who Are These Children?

In a nutshell, they are children like many of yours and ours. They are this generation’s answer to the achievements of Albert Einstein, John Couch Adams, Thomas Edison, Sir Isaac Newton, Vincent Van Gogh, Emily Dickinson, Temple Grandin, Jane Austen, Wolfgang Amadeus Mozart, Mary Englebreit, Alexander Graham Bell, and Bill Gates, among others. They are our future inventors, engineers, philosophers, scientists, authors, musicians, teachers, therapists, and artists. They are our best and brightest hope for answers to the problems plaguing contemporary society and the world as a whole—problems such as world hunger, global water shortages, the energy crisis, environmental changes and their causes, the economy, impending pandemics, and war, just to name a few. They are our gifted children, though to their parents they may not appear gifted.

Like many of our children, the individuals we've named here were clearly twice exceptional. As Temple explains in her book *Thinking in Pictures*, many of our most creative, divergent, and visual thinkers exhibited overt symptoms of what today would be labeled a developmental disability even before their giftedness was recognized. For instance, Albert Einstein did not learn to speak until age three and did not seek out friendships with peers. He struggled with spelling and foreign languages and was not seen as exceptional in school. Yet intensity in his area of passion allowed him to concentrate for hours and even days on a problem. Gregor Mendel, the founder of modern genetics, could not pass the teaching exam to qualify to teach high school, but his experiments eventually led to our contemporary understanding of genetics, which today is standard in most high school biology curricula. Temple herself was an adult before she recognized the extent of her differences from others. As a youngster she did not speak until age four and was extremely hyperactive. Nevertheless, her mother saw glimmers of her visual-spatial brilliance and encouraged her in artistic pursuits, such as drawing, which later became foundational in her development of livestock handling systems used around the world.

### How Can My Child Be Gifted?

Within the gifted world and the world of disabilities is a subset of children whose giftedness remains unrecognized or undeveloped because it co-occurs with one or more developmental or learning disorders. Linda Kreger Silverman, psychologist and leading expert in the field of gifted studies, estimates that up to one-sixth of the identified gifted population has a hidden learning disability;<sup>2</sup> the *2e Twice-Exceptional Newsletter* states that this figure may be as high as 20 percent.<sup>3</sup>

Twice-exceptional (2e) children diagnosed with ADHD, Asperger's syndrome, autism spectrum disorders, and related

conditions (such as specific learning disabilities, social communication impairments, mood disorders, sensory processing difficulties, and motor skills impairments) are enigmas to parents, medical professionals, and educators—and to the gifted community. Within this 2e group are three categories:

- Children whose giftedness masks the disability
- Children whose disability masks the giftedness
- Children in whom the giftedness and the disability mask one another<sup>4</sup>

Unfortunately, in all but the first category, the children's gifts are unrealized and undeveloped because of the complex interplay among giftedness, disability, and our education and mental health systems. For a majority of these children, the giftedness is lost to the disability: either because the disability balances out the giftedness or because the disability conceals it. As a result, many 2e children remain unidentified in school even though they are likely to be identified as having a learning or behavioral disability. The most common is ADHD, a diagnosis that seldom appears alone.

Many children diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD), Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS), Asperger's syndrome (AS), high-functioning autism (HFA), and related conditions often have exceptional abilities or are exceptionally gifted with an IQ up to 140 or above. When it comes to being able to identify these children as twice exceptional, though, the IQ often masks the severity of the disability, and the disability impairs the IQ.

To account for the confusing variations of development and behaviors within the gifted population in general and among 2e children in particular, a team of gifted experts known as the

Columbus Group created a new definition of giftedness: “Giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony increases with higher intellectual capacity.”<sup>5</sup> The Columbus Group also states that to reach their full potential, these children require significant adaptations and accommodations on the part of parents, teachers, and counselors.

One defining characteristic of giftedness merits considerable attention when discussing the 2e child: uneven development or “asynchronous development,”<sup>6</sup> otherwise known as asynchrony. This characteristic is well documented in children with HFA/AS,<sup>7</sup> and it is noted to be a trait in ADHD.<sup>8</sup> Children who are gifted often develop faster intellectually than they do physically. Consequently, there are inconsistencies in their performance, their insights, and their abilities to relate to the world around them.

Asynchrony encompasses many aspects of development and accounts for many of the paradoxes seen in gifted children. Silverman identifies several characteristics of asynchrony including “advanced cognitive abilities, heightened intensity and complexity, uneven development, unusual awareness, feeling out-of-sync with societal norms, and vulnerability”<sup>9</sup> and believes that asynchrony increases as IQ increases. Thus when a child has both severe deficits in learning and a high IQ, the unevenness in skills and abilities is exaggerated, making it much more difficult to accurately identify the giftedness as well as the disability or to measure the outer limits of each.<sup>10</sup> As the following list shows, 2e children are an interesting mix of strengths and challenges.<sup>11</sup> Because of this mix, the child’s giftedness is often unrecognized, as may his need for educational supports and even medical intervention. Thus many 2e children remain unidentified and never receive the assistance necessary for them to develop their gifts fully.

### 2e Characteristics

Strengths	Challenges
Is creative, innovative	Has poor social skills
Is a “big picture” thinker	Doesn’t “fit in”
Has advanced problem-solving abilities	Is stubborn
Is insightful	Is emotionally intense
Has in-depth interests	Is anxious
Is curious and inquisitive	Is perfectionist
Is highly verbal	Is highly sensitive
Is committed	Has uneven skills and abilities
Is passionate and highly knowledgeable in areas of special interest	Has difficulty paying attention (except in areas of interests)
Has unusual sense of humor	Is disorganized; has poor study skills

Sadly, these children usually are seen by the adults around them as more broken than bright. As moms, we recall the many parent-teacher conferences that focused only on our children’s disabilities and behaviors: Rebecca’s daughter Erin’s dyslexia, her inability to memorize or recall information, and her emotional oversensitivity; Diane’s son Sam’s and Rebecca’s son Graham’s energetic, impulsive, noncompliant, and aggressive behaviors, their tardiness and absences, their inattention, and their disorganization.

In all these meetings, giftedness was not a central topic of discussion even though both Sam and Graham had been identified as having gifted IQs: Sam as highly gifted at age four and Graham as gifted at age eight. Similarly, Erin’s sharp observational skills, along with her abilities to reason logically and think divergently, were quite evident to her teachers despite her disabilities, and her IQ also fell within the gifted range. Diane’s other sons, Jeff and Ben, were also identified as gifted, but it was always the problems with

inattention, hyperactivity, and disorganization that were the focus in school conferences.

Because our children did not fit the stereotypical idea of academic All-Americans, their behaviors and challenges eclipsed their strengths in the eyes of educators. Year after year, we listened as frustrated teachers and administrators told us that our children could achieve if they wanted to, that they were simply being lazy, stubborn, and even defiant. In other words, our children's persistent difficulties and their inability to succeed academically did not align with the stereotype of a gifted student.

In the presence of dual exceptionalities, parents and teachers understandably become confused by the interplay between giftedness and disability. The traditional idea of what it means to be gifted flies in the face of what parents often experience, especially when ADHD, HFA/AS, and learning disabilities are thrown into the mix. Even though parents recognize their children's exceptional intelligence, understandably their focus is on the disabilities and problem behaviors, which seem so contrary to the idea of giftedness prevalent in our culture. The following posts illustrate how confusing and frustrating these contradictory symptoms and behaviors can be.

I'm trying to see if I should definitely bring this up to my [child's] doctor or maybe I am just thinking too much about the possibility that he may be an Aspie with ADHD. My son is exceptionally smart. My main concern is his lack of ability to read social cues. He doesn't appear to be comfortable talking to peers especially face to face. He seems to loose [sic] his words or he doesn't know what he wants to say to others until he thinks about it beforehand. His conversations are very short and he seems to loose [sic] his audience. Another concern is his reluctance to drive or get involved with

activities at school or in the community. He is not very coordinated. . . .

He was dx [diagnosed] with ADHD combo type 3 years ago and identified as gifted since kindergarten. On one IQ test (CoGAT), he hit the test ceiling at 140. It seems he has gotten by his elementary school years without too much complaint except he underachieves and loses [sic] most of his assignments. These are some other observations since he was young:

- Hypersensitive to light, sound, touch. . .
- Uncoordinated—at 10 yrs of age, it seemed difficult for him to wipe up spilt water.
- Has difficulty maintaining friendships.
- Seems like he is on a different page when he is with friends.
- Can get into specific morning rituals where he needs to do things in order and gets very angry if he cannot follow the order.<sup>12</sup>

My child is in second grade. His behavior is becoming a real issue.

Positives:

Very smart, reads, gets along with his sisters (mostly), plays games, helps around the house (sometimes), enjoys school (often), plays piano, engages in conversations, likes Boy Scouts.

Negatives:

Sleep problems, gets very upset when something is changed or missing or broken, will not do some school work (such as creative writing), yells and throws tantrums when upset, very picky about food (eats primarily peanut butter and jelly but must be of correct



brand and type), refuses participation in karate, soccer, and other group sports.

He has been diagnosed as Asperger's and Gifted by a Neurologist, Psychologist, Developmental Pediatrician and social worker. ADHD and ODD were brought up as possibilities.<sup>13</sup>

My child is 12 years old. He was first diagnosed with ADHD. Later on he developed OCD, and most recently ODD. He has a high IQ and is extremely gifted in math and science. He has serious [sic] peer problems, and doesn't seem to fit in any setting. He's extremely inquisitive, and always has a book in his hands.

He is currently taking three different medications (one of them a stimulant), which help him "control" himself for a while, at least while he's in school.

I have battled the school system for years to get him appropriate education, but they just keep targetting [sic] him as a problem child. I feel that as he gets older, more issues appear, and I believe he has a bright future. . . .

Is there anything else I can do for him?

Has he been misdiagnosed?<sup>14</sup>

### Twice Exceptional: Challenging the Intelligence Stereotype

Fortunately, in the past two decades, contemporary theories in learning and aptitude paint a varied and diverse portrait of giftedness: one that includes many intelligences, abilities, and expressions, as well as disabilities and limitations. The idea of multiple intelligences, developed by Howard Gardner in his seminal work *Multiple Intelligences: New Horizons*, allows for intelligences beyond the verbal or computational intelligences typically valued

in academics. According to Gardner, there are eight areas where intelligence can be demonstrated:<sup>15</sup>

**Linguistic intelligence:** the capacity to use words orally or in written form. Writers, poets, and public speakers enjoy these abilities.

**Logical-mathematical intelligence:** the capacity to use numbers and logic. Accountants, computer analysts and programmers, and scientists have these capacities.

**Spatial intelligence:** the ability to perceive the visual-spatial world accurately; to visualize; and to perceive the relationship among lines, space, form, and color. Graphic designers, artists, architects, interior designers, mechanical engineers, and tool-and-die specialists have this type of intelligence.

**Bodily-kinesthetic intelligence:** the ability to use one's body to express ideas; the ability to use one's hands to build or create; and coordination, balance, and dexterity. Dancers, athletes, and gymnasts enjoy these abilities.

**Musical intelligence:** the ability to perceive, create, or perform music and to understand how tone, pitch, and rhythm interact. Musicians, music producers, orchestral conductors, and singers have these abilities.

**Interpersonal intelligence:** the ability to understand the motives, moods, and emotions of others; the ability to read verbal and nonverbal cues. Politicians, business leaders, military leaders, and teachers exhibit this intelligence.

**Intrapersonal intelligence:** the ability to understand one's motives, emotions, needs, strengths, and weaknesses and to act on this knowledge. Individuals who are spiritually intuitive exhibit this intelligence.

**Naturalistic intelligence:** the ability to identify and classify the elements in our environment. Botanists, biologists, and entomologists exhibit this type of capacity.

Although every person demonstrates intelligence in each of these areas, and all the intelligences function together to create the individual, the degree to which each person expresses strength in particular intelligences is an excellent indicator of where his gifts and talents may lie.<sup>16</sup> In Gardner's theory, giftedness extends beyond IQ and is proven by more than academic achievement in one or two subject areas (though these may indeed be evidence of a particular intelligence or aptitude). Instead, giftedness is evidenced by focus, commitment, and passion in one or more of the intelligences.

Temple describes three types of specialized thinkers within the 2e population with autism. *I am a photorealistic visual thinker. The HBO movie Temple Grandin shows exactly how I think. All my thoughts are in photorealistic pictures like using an Internet search engine set for photos. Children with my type of thinking are usually good at art.*

*A second type of thinking is the pattern thinker. These children are the mathematical, music, and computer programmer minds. They think in more abstract patterns. These kids are often poor readers. They may be three grades ahead in math, but need special education in reading. It is important to let them advance in math. If you force them to do "baby" math, they will get frustrated and turn into behavior problems, or they will shut down.*

*The third type of thinker is the word mind. These people think mainly in words, and they are not visual thinkers.*

*The strengths of all types of minds need to be developed. These different types of thinking are most likely to start showing up when kids are seven to nine years old. Kids can also be mixtures of thinking types.*

These patterns Temple describes fall in line with the main learning styles found in children and widely recognized by learning specialists. Two main learning styles are what Silverman describes as auditory-sequential and visual-spatial. The following list shows the characteristics of each style.<sup>17</sup>

### Learning Styles

Auditory-Sequential	Visual-Spatial
Thinks primarily in words	Thinks primarily in pictures
Has auditory strengths	Has visual strengths
Is a step-by-step learner	Learns concepts all at once
Is an analytical thinker	Sees the big picture; may miss details
Follows oral directions well	Must visualize words to spell them
Is well organized	Creates unique methods of organization
Can show steps of work easily	Arrives at correct solutions intuitively
Follows oral directions	Learns best by seeing relationships
Develops fairly evenly	Learns concepts permanently; is turned off by drill and repetition
Is academically talented	Is creatively, mechanically, or technologically gifted

Regardless of the kind or kinds of intelligence that are dominant, one common trait exhibited by most gifted individuals is intensity.<sup>18</sup> Intensity is a hallmark of the gifted, driving the individual's emotional, intellectual, and even physical responses. Gifted individuals feel deeply, question relentlessly, and often seem to be restless and on the move. They are also perfectionistic, a double-edged attribute that can either compel an individual to greatness or generate paralysis that leads to failure.<sup>19</sup> Along with intensity and perfectionism, gifted individuals also are highly sensitive to the emotions of others and to the environment, responding to stimuli that most people do not even recognize. As Silverman says, "The gifted are 'too' everything: too sensitive, too intense, too driven, too honest, too idealistic, too moral, too perfectionistic, too much for other people."<sup>20</sup>

These intensities and sensitivities have been best explained in the context of the work of Kazimierz Dabrowski, a Polish psychiatrist whose theory of personality development has been applied to the gifted population. In their important work *Living with Intensity*, researchers Susan Daniels and Michael Piechowski

show how Dabrowski's concept of "overexcitabilities" can explain the heightened sensitivities of gifted individuals. Just as children are born with innate sensitivities to the world, children with higher intelligences are often more sensitive to their internal and external realities and respond with more intensity than would children with average intelligences.<sup>21</sup> Specifically, there are five areas or overexcitabilities (OEs) that Dabrowski identified:<sup>22</sup>

1. **Intellectual OE.** Children with this OE are extremely inquisitive and curious, are capable of intense concentration, and generally have highly active minds. These children tend to seek answers and truth, enjoy theory, and are often highly moral.
2. **Psychomotor OE.** Children with this OE have increased excitability in the neuromuscular system. They are highly active, energetic, and talkative, and they love to move.
3. **Sensual OE.** This OE makes children extremely sensitive to pleasurable and uncomfortable sensations from touch, sight, smells, tastes, and sounds.
4. **Emotional OE.** This OE is characterized by intense feelings, increased emotional sensitivity and identification with the feelings of others, and strong emotional attachments.
5. **Imaginational OE.** This OE is marked by a tendency for creating vivid imaginary worlds, thinking visually, using metaphorical language, and having a rich dream life.

Although these OEs provide an excellent framework for understanding the intensity and sensitivity of gifted individuals, they can also lead to confusion when looking at the 2e child. Each OE can lead to behaviors identical to those found in children with ADHD, Asperger's or autism, and related conditions.

Further, when an OE is expressed to a greater degree, the potential for confusion grows. As Daniels and Piechowski explain, "More

often than not, aspects of intensity are mistaken for indicators of potential pathology rather than signs of a strong developmental potential.”<sup>23</sup> For instance, a child with psychomotor OE will tend to be more active and talkative than his peers, but when this OE is even more prominent, this same child may become a disruption in the classroom, prompting an evaluation for ADHD. This confusion between traits of giftedness and traits of disability often leads to misdiagnosis, missed diagnosis, and even missed giftedness in 2e children.

### The Whole Child Approach

Once we understand the many factors that underlie a child’s giftedness and his unique intensities, we can more deeply appreciate and support the whole child. As parents, we have a responsibility to embrace our children’s giftedness and discover ways to nurture their strengths and abilities. At the same time, we must advocate for them in their areas of weakness.

When it comes to successful life outcomes, taking a whole child approach is what works best for 2e children. Our overriding goal as parents should be to cultivate the wonderful and original talents in our children. Everything else—supports, interventions, therapies, education—should be undertaken with this goal in mind. Only then, when the focus is on the abilities and not the challenges, will it be easier for us to see how to help our 2e children navigate in a world that desperately needs their gifts but unfortunately defines them by their weaknesses.