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# How Do You Raise a Prodigy?

By ANDREW SOLOMON

Drew Petersen didn't speak until he was 3½, but his mother, Sue, never believed he was slow. When he was 18 months old, in 1994, she was reading to him and skipped a word, whereupon Drew reached over and pointed to the missing word on the page. Drew didn't produce much sound at that stage, but he already cared about it deeply. "Church bells would elicit a big response," Sue told me. "Birdsong would stop him in his tracks."

Sue, who learned piano as a child, taught Drew the basics on an old upright, and he became fascinated by sheet music. "He needed to decode it," Sue said. "So I had to recall what little I remembered, which was the treble clef." As Drew told me, "It was like learning 13 letters of the alphabet and then trying to read books." He figured out the bass clef on his own, and when he began formal lessons at 5, his teacher said he could skip the first six months' worth of material. Within the year, Drew was performing Beethoven sonatas at the recital hall at Carnegie Hall. "I thought it was delightful," Sue said, "but I also thought we shouldn't take it too seriously. He was just a little boy."

On his way to kindergarten one day, Drew asked his mother, "Can I just stay home so I can learn something?" Sue was at a loss. "He was reading textbooks this big, and they're in class holding up a blowup M," she said. Drew, who is now 18, said: "At first, it felt lonely. Then you accept that, yes, you're different from everyone else, but people will be your friends anyway." Drew's parents moved him to a private school. They bought him a new piano, because he announced at 7 that their upright lacked dynamic contrast. "It cost more money than we'd ever paid for anything except a down payment on a house," Sue said. When Drew was 14, he discovered a home-school program created by Harvard; when I met him two years ago, he was 16, studying at the Manhattan School of Music and halfway to a Harvard bachelor's degree.

Prodigies are able to function at an advanced adult level in some domain before age 12. "Prodigy" derives from the Latin "*prodigium*," a monster that violates the natural order. These children have differences so evident as to resemble a birth defect, and it was in that

context that I came to investigate them. Having spent 10 years researching a book about children whose experiences differ radically from those of their parents and the world around them, I found that stigmatized differences — having Down syndrome, autism or deafness; being a dwarf or being transgender — are often clouds with silver linings. Families grappling with these apparent problems may find profound meaning, even beauty, in them. Prodigiousness, conversely, looks from a distance like silver, but it comes with banks of clouds; genius can be as bewildering and hazardous as a disability. Despite the past century's breakthroughs in psychology and neuroscience, prodigiousness and genius are as little understood as autism. "Genius is an abnormality, and can signal other abnormalities," says Veda Kaplinsky of Juilliard, perhaps the world's pre-eminent teacher of young pianists. "Many gifted kids have A.D.D. or O.C.D. or Asperger's. When the parents are confronted with two sides of a kid, they're so quick to acknowledge the positive, the talented, the exceptional; they are often in denial over everything else."

We live in ambitious times. You need only to go through the New York preschool application process, as I recently did for my son, to witness the hysteria attached to early achievement, the widespread presumption that a child's destiny hinges on getting a baby foot on a tall ladder. Parental obsessiveness on this front reflects the hegemony of developmental psychiatry, with its insistence that first experience is formative. We now know that brain plasticity diminishes over time; it is easier to mold a child than to reform an adult. What are we to do with this information? I would hate for my children to feel that their worth is contingent on sustaining competitive advantage, but I'd also hate for them to fall short of their potential. Tiger mothers who browbeat their children into submission overemphasize a narrow category of achievement over psychic health. Attachment parenting, conversely, often sacrifices accomplishment to an ideal of unboundaried acceptance that can be equally pernicious. It's tempting to propose some universal answer, but spending time with families of remarkably talented children showed me that what works for one child can be disastrous for another.

Children who are pushed toward success and succeed have a very different trajectory from that of children who are pushed toward success and fail. I once told Lang Lang, a prodigy par excellence and now perhaps the most famous pianist in the world, that by American standards, his father's brutal methods — which included telling him to commit suicide, refusing any praise, browbeating him into abject submission — would count as child abuse. "If my father had pressured me like this and I had not done well, it would have been child abuse, and I would be traumatized, maybe destroyed," Lang responded. "He could have been less extreme, and we probably would have made it to the same place; you don't have to

sacrifice everything to be a musician. But we had the same goal. So since all the pressure helped me become a world-famous star musician, which I love being, I would say that, for me, it was in the end a wonderful way to grow up.”

While it is true that some parents push their kids too hard and give them breakdowns, others fail to support a child’s passion for his own gift and deprive him of the only life that he would have enjoyed. You can err in either direction. Given that there is no consensus about how to raise ordinary children, it is not surprising that there is none about how to raise remarkable children. Like parents of children who are severely challenged, parents of exceptionally talented children are custodians of young people beyond their comprehension.

Spending time with the Petersens, I was struck not only by their mutual devotion but also by the easy way they avoided the snobberies that tend to cling to classical music. Sue is a school nurse; her husband, Joe, works in the engineering department of Volkswagen. They never expected the life into which Drew has led them, but they have neither been intimidated by it nor brash in pursuing it; it remains both a diligence and an art. “How do you describe a normal family?” Joe said. “The only way I can describe a normal one is a happy one. What my kids do brings a lot of joy into this household.” When I asked Sue how Drew’s talent had affected how they reared his younger brother, Erik, she said: “It’s distracting and different. It would be similar if Erik’s brother had a disability or a wooden leg.”

**Prodigiousness manifests** most often in athletics, mathematics, chess and music. A child may have a brain that processes chess moves or mathematical equations like some dream computer, which is its own mystery, but how can the mature emotional insight that is necessary to musicianship emerge from someone who is immature? “Young people like romance stories and war stories and good-and-evil stories and old movies because their emotional life mostly is and should be fantasy,” says Ken Noda, a great piano prodigy in his day who gave up public performance and now works at the Metropolitan Opera. “They put that fantasized emotion into their playing, and it is very convincing. I had an amazing capacity for imagining these feelings, and that’s part of what talent is. But it dries up, in everyone. That’s why so many prodigies have midlife crises in their late teens or early 20s. If our imagination is not replenished with experience, the ability to reproduce these feelings in one’s playing gradually diminishes.”

Musicians often talked to me about whether you achieve brilliance on the violin by practicing for hours every day or by reading Shakespeare, learning physics and falling in love. “Maturity, in music and in life, has to be earned by living,” the violinist Yehudi Menuhin once said. Who opens up or blocks access to such living? A musical prodigy’s

development hinges on parental collaboration. Without that support, the child would never gain access to an instrument, the technical training that even the most devout genius requires or the emotional nurturance that enables a musician to achieve mature expression. As David Henry Feldman and Lynn T. Goldsmith, scholars in the field, have said, “A prodigy is a group enterprise.”

Some prodigies seem to trade on a splinter skill — an ability in music that occupies their whole consciousness, leaving them virtually incompetent in all other areas. Others have a dazzling capacity for achievement in general and select music from among multitudinous gifts. Mikhail and Natalie Paremski held comfortable positions within the Soviet system: Mikhail with the Kurchatov Institute of Atomic Agency; Natalie with the Moscow Engineering Physics Institute. Their daughter, Natasha, born in 1987, showed a precocious interest in the piano. “I was in the kitchen, and I thought, Who is playing?” Natalie recalls. “Then I saw: it’s the baby, picking out nursery songs.” By the time she was 4, Natasha had played a Chopin mazurka in a children’s concert.

After the Soviet Union collapsed, Mikhail emigrated to California; the family followed in 1995. Natasha entered fourth grade, two years younger than her classmates. Within months, she was speaking English without an accent and coming in first on every school test. The family couldn’t afford a good piano; they finally found a cheap one that “sounded like cabbage,” Natasha recalls, and she began performing Haydn concertos, Beethoven sonatas and Chopin études. “Everyone would say, ‘You must be so proud of your daughter,’” Natalie told me. “I used to say that it’s not for me to be proud; it’s Natasha who does this herself — but I learned that this is not the polite American way. So now I always say, ‘I am so proud of my daughter,’ and then maybe we can have a conversation.” Natasha agreed. “What did they do to make me practice?” she asked when I first interviewed her, at 16. “What did they do to make me eat or sleep?”

Natasha graduated with top honors from high school at 14 and was offered a full scholarship by Mannes College the New School for Music in New York. Her mother worried about a deficit of soul in New York. “There is no time for vision! People are just struggling to survive, like in Moscow,” Natalie said — to which her daughter replied, “Vision is how I survive.” In those early New York days, Natasha and her mother spoke by phone constantly. Nonetheless, Natalie said, “that was my present to her: I gave her her own life.”

In 2004, when Natasha was 16, I went to her Carnegie Hall debut, for which she played Rachmaninoff’s Piano Concerto No. 2. She’s a beautiful young woman, with cascades of hair and a sylphlike figure, and she wore a sleeveless, black velvet dress, so her arms would feel

free, and a pair of insanely high heels that she said gave her better leverage on the pedals. Her parents were not there. “They’re too supportive to come,” Natasha told me just before the concert. Afterward, Natalie explained, “If I am there, I am so worried about every single note that I can’t even sit still. It’s not helpful to Natasha.”

Natasha later said she saw nothing strange in a musician’s ability to express emotions she has not experienced. “Had I experienced them, that wouldn’t necessarily help me to express them better in my music. I’m an actress, not a character; my job is to represent something, not to live it. Chopin wrote a mazurka, Person X in the audience wants to hear the mazurka and so I have to decipher the score and make it apprehensible to Person X, and it’s really hard to do. But it has nothing to do with my life experience.”

**After the English** lawyer Daines Barrington examined the 8-year-old Mozart in 1764, he wrote: “He had a thorough knowledge of the fundamental principles of composition. He was also a great master of modulation, and his transitions from one key to another were excessively natural and judicious.” Yet, Mozart was also clearly a child. “Whilst he was playing to me, a favorite cat came in, upon which he immediately left his harpsichord, nor could we bring him back for a considerable time. He would also sometimes run about the room with a stick between his legs by way of horse.”

Every prodigy is a chimera of such mastery and childishness, and the contrast between musical sophistication and personal immaturity can be striking. One prodigy I interviewed switched from the violin to the piano when she was 7. She offered to tell me why if I didn’t tell her mother. “I wanted to sit down,” she said.

Chloe Yu was born in Macao and came to the United States to study when she was 17. She married at 25, and her son, Marc, was born a year later, in Pasadena, Calif. While she was pregnant, Chloe played the piano to him. When Marc was almost 3, he picked out a few tunes on the piano with two fingers; within a few months, Chloe had found him a teacher advanced enough to respond to his emerging talent. At 5, he added the cello to his regimen. “Soon he asked for more instruments,” Chloe told me. “I said: ‘That’s it, Marc. Be realistic. Two is enough.’”

Chloe gave up on the master’s degree she was working on. She had divorced Marc’s father, but because she had no money, she and Marc ended up living with her ex-in-laws, in a room over the garage. Marc’s grandparents did not approve of his “excessive” devotion to the piano. “His grandmother loves him a lot,” Chloe said. “But she just wanted him to be a normal 5-year-old.” When Marc was in preschool, Chloe felt he was ready to perform, and

she contacted local retirement facilities and hospitals to offer free recitals. Soon the papers were writing about this young genius. “When I began to understand how talented he is, I was so excited!” Chloe said. “And also so afraid!”

At 6, Marc won a fellowship for gifted youth that covered the down payment on a Steinway. By the time Marc was 8, he and Chloe were flying to China frequently for lessons; Chloe explained that whereas her son’s American teachers gave him broad interpretive ideas to explore freely, his Chinese teacher taught measure by measure. I asked Marc whether he found it difficult traveling so far. “Well, fortunately, I don’t have vestigial somnolence,” he said. I raised an eyebrow. “You know — jet lag,” he apologized.

Marc was being home-schooled to accommodate his performance and practice schedule. At the age of a third-grader, he was taking an SAT class. Chloe serves as his manager and reviews concert invitations with him. “In America, every kid has to be well rounded,” Chloe said. “They have 10 different activities, and they never excel at any of them. Americans want everyone to have the same life; it’s a cult of the average. This is wonderful for disabled children, who get things they would never have otherwise, but it’s a disaster for gifted children. Why should Marc spend his life learning sports he’s not interested in when he has this superb gift that gives him so much joy?”

At their home in California, I asked Marc what he thought of a normal childhood. “I already have a normal childhood,” he said. “Do you want to see my room? It’s messy, but you can come anyway.” Upstairs, he showed me a yellow remote-controlled helicopter that his father had sent from China. The bookshelves were crammed with Dr. Seuss, “Jumanji” and “The Wind in the Willows” but also “Moby-Dick”; with “Sesame Street” videos and also a series of DVDs on the music of Prague, Vienna and so on. We sat on the floor, and he showed me his favorite Gary Larson cartoons, and then we played the board game Mouse Trap.

Then we went downstairs, and Marc sat on a phone book on the piano bench so his hands would be high enough to play comfortably and launched into Chopin’s “Fantasie-Impromptu,” which he imbued with a quality of nuanced yearning that seemed almost inconceivable in someone with a shelf of Cookie Monster videos. “You see?” Chloe said to me. “He’s not a normal child. Why should he have a normal childhood?”

**A parent is** the progenitor of much of a child’s behavior, telling that child repeatedly who he has been, is and could be, reconciling accomplishment and naïveté. In constructing this narrative, parents often confuse the anomaly of developing fast with the objective of developing profoundly. There is no clear delineation between supporting and pressuring a

child, between believing in your child and forcing your child to conform to what you imagine for him. If society's expectations for most children with profound differences are too low, expectations for prodigies are often perilously high. "When you have a child whose gift is so overshadowing, it is possible for parents to be distracted and lose track of the child himself," says Karen Monroe, a psychiatrist at Boston's McLean Hospital who works with prodigious children.

If you dream of having a genius for a child, you will spot brilliance in your child, sometimes even when it isn't there. Such children, despite being the subjects of obsessive attention, can suffer from not being seen; their sorrow is organized not so much around the rigor of practicing as around invisibility. And yet, accomplishment entails giving up the pleasures of the present moment in favor of anticipated triumphs, and that is an impulse that must be learned. Left to their own devices, children do not become world-class instrumentalists before they turn 10.

When I spoke to the mother of one musical prodigy on the telephone to set up an interview, I invited her and her daughter to dinner, but she said, "We have a family of fussy eaters, so we'll eat before we come." The girl and her parents, whom I've granted anonymity for their own protection, arrived wearing coats, and I offered to hang them up. "That won't be necessary," the mother said, and they sat holding them through the interview. I offered them something to drink, but the woman said, "We are so used to our schedule, and it's not time for a drink right now." In three hours, none of them had a sip of water. I had put out homemade cookies, and the daughter kept glancing at them; every time she did, the mother shot her a look. Whenever I asked the daughter a question, her mother jumped in to answer on her behalf; when the daughter did reply, she did so with an anxious glance at her mother, as if worried that she delivered the wrong response.

The daughter was holding her instrument case, so I invited her to play. "I think I'll play the Bach Chaconne," she said. Her mother said, "How about the Rimsky-Korsakov?" She replied, "No, no, no, the Chaconne is better." The daughter had told me that she chose her instrument for its resemblance to her voice; now it provided her only chance to be heard over her mother. She played the Chaconne. When she finished, her mother said, "Now you can play the Rimsky-Korsakov." The daughter dutifully launched into "Flight of the Bumblebee," the proof of every virtuoso. "Vivaldi?" her mother said, and she played "Summer" from "The Four Seasons." She played with a clear, bright tone, although not with such brilliance as to resolve the question of why a childhood had been sacrificed for this art. I had hoped this child would light up when her bow met the strings, but instead she brought

out her instrument's searing melancholy.

**Throughout much** of history, prodigies were thought to be possessed; Aristotle believed that there could be no genius without madness. Paganini was accused of putting himself in the hands of the devil. The Italian criminologist Cesare Lombroso said in 1891, "Genius is a true degenerative psychosis belonging to the group of moral insanity." Recent neuroscience demonstrates that the processes of creativity and psychosis map similarly in the brain, each contingent on a reduced number of dopamine D2 receptors in the thalamus. A continuum runs between the two conditions; there is no sharp line.

The parents of children with disabilities must be educated to see the identity within a perceived illness, but the parents of prodigies are confronted with an identity and must be educated to recognize the prospect of illness within it. Even those without a sideline diagnosis like A.D.D. or Asperger's need to mitigate the loneliness of being peerless and of having their primary emotional relationship with an inanimate object. "If you're spending five hours a day practicing, and the other kids are out playing baseball, you're not doing the same things," Karen Monroe says. "Even if you love it and can't imagine yourself doing anything else, that doesn't mean you don't feel lonely."

If Chloe Yu scorned the idea of a normal childhood, May Armstrong simply had to bow to the reality that no such thing could be achieved with her only son, Kit. Born in 1992, Kit could count at 15 months; May taught him addition and subtraction at 2, and he worked out multiplication and division for himself. While digging in the garden, he explained the principle of leverage to his mother. By 5, he explained Einstein's theory of time dilation to her. May, an economist, was frankly bemused: "By nature, every mother wants to be protective, but he didn't need protection. I can't say that was easy."

May had left Taiwan at 22 to study in the United States and spent holidays by herself. "I knew what loneliness was all about, and I thought he needed a hobby he could enjoy on his own," she says. So she started him on piano lessons when he was 5, even though she had no interest in music. After three weeks of lessons, Kit started composing without an instrument on staff paper: the written language of music had come to him whole.

When Kit was 3, a supervisor of his play group told May that he let other children push him around. "I went in one day and saw another child snatch a toy away from him," May said. "I told him he should stand up for himself, and he said: 'That kid will be bored in two minutes, and then I can play with it again. Why start a fight?' So he was mature already. What did I have to teach this kid? But he always seemed happy, and that was what I wanted most for



him. He used to look in the mirror and burst out laughing.” May enrolled him in school. “His teacher told me that she wanted her other kids to grow up in kindergarten,” she said. “She wanted mine to grow down.”

By age 9, he had graduated from high school and started college in Utah. “The other students often thought it was strange that he was there,” May says, “but Kit never did.” His piano skills, meanwhile, had advanced enough so that by the time he was 10, he appeared on David Letterman. Shortly after, Kit toured the physics research facility at Los Alamos. A physicist said that, unlike the postdoctoral physicists who usually visited, Kit was so bright that no one could “find the bottom of this boy’s knowledge.” A few years later, Kit attended a summer program at M.I.T., where he helped edit papers in physics, chemistry and mathematics. “He just understands things,” May said to me, almost resigned. “Someday, I want to work with parents of disabled children, because I know their bewilderment is like mine. I had no idea how to be a mother to Kit, and there was no place to find out.”

May moved them to London to pursue Kit’s musicianship, and he soon met the revered pianist Alfred Brendel; he took Kit on and refused payment for lessons. When he learned that Kit was practicing at a piano showroom, he had a Steinway delivered to their apartment.

“I have no ear to be any help to Kit,” May said. “All I can do is remind him that he is very lucky to have been born with those talents. I’d have preferred that he be a professor of mathematics. It’s an easier life.” Then she added, “But Kit has decided that mathematics is his hobby, and the piano is his work.” At 18, Kit was pursuing an M.A. in pure mathematics in Paris; he said he did it “to unwind.” I asked May if she ever worried that Kit, like many young people of remarkable ability, might have a nervous breakdown. She laughed. “If anyone’s going to have a nervous breakdown in this setup,” she said, “it’s me!”

**There is no** federal mandate for gifted education. But if we recognize the importance of special programs for students whose atypical brains encode less-accepted differences, we should extrapolate to create programs for those whose atypical brains encode remarkable abilities. Writing in Time magazine in 2007, the educator John Cloud faulted the “radically egalitarian” values underlying the [No Child Left Behind Act](#), which provided little support for [gifted students](#). Once again, it falls to parents to advocate for their children’s needs, often in the face of a hostile or indifferent educational system. Leon Botstein, president of Bard College, himself a conductor and a former wunderkind, remarked dryly, “If Beethoven were sent to nursery school today, they would medicate him, and he would be a postal clerk.”

Growing up gay in the 1970s, I encountered prejudice from the world at large that often crossed into disdain. My parents were never derisive, but they were uncomfortable with the ways I differed from them and encouraged me to try to be straight. I began researching children of difference in a quest to forgive my mother and father for pressing me to be untrue to myself. I wanted to look at the process through which parents reconcile themselves to children who throw up significant challenges. I found that many families come to celebrate children with characteristics they initially found incomprehensible — just as my parents did. Having seen how hard it was for other parents, I decided, with considerable relief, that mine had actually done a pretty good job and realized that I was ready to be a parent myself.

My research on prodigies echoed my study of children with other differences. Sue Petersen compared her experience to having a child with a wooden leg; May Armstrong saw common ground with parents of disabled children; and I realized that parenthood always entails perplexity and that the valence of that perplexity matters less than the spirit with which parents respond to it. Half the prodigies I studied seemed to be under pressure to be even more astonishing than they naturally were, and the other half, to be more ordinary than their talents. Studying their families, I gradually recognized that all parenting is guesswork, and that difference of any kind, positive or negative, makes the guessing harder. That insight has largely shaped me as a father. I don't think I would love my children more if they could play Rachmaninoff's Third, and I hope I wouldn't love them less for having that consuming skill, any more than I would if they were affected with a chronic illness. But I am frankly relieved that so far, they show no such uncanny aptitude.

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