

Nurture Shock

PO Bronson—2009

Introduction

- Prior to that story, our instincts led us to believe, quite firmly, that it was important to tell young children they were smart, in order to buoy their confidence. However, we uncovered a body of science that argued. Extremely convincingly, that this habit of telling kids they're smart was backfiring. It was in fact undermining children's confidence.

ONE—The Inverse Power of Praise

- But as Thomas has progressed through school, this self-awareness that he's smart hasn't always translated into fearless confidence when attacking his schoolwork. In fact, Thomas's father noticed just the opposite.
- Then the students were given a choice of test for the second round. One choice was a test that would be more difficult than the first, but the researchers told the kids that they'd learn a lot from attempting the puzzles. The other choice, Dweck's team explained, was an easy test, just like the first. Of those praised for their effort, 90 percent chose the harder set of puzzles. Of those praised for their intelligence, a majority chose the easy test. The "smart" kids took the cop-out.
- The test was difficult, designed for kids two years ahead of their grade level. Predictably, everyone failed. But again, the two groups of children, divided at random at the study's start, responded differently. Those praised for their effort on the first test assumed they simply hadn't focused hard enough on this test. "They got very involved. Willing to try every solution to the puzzles," Dweck recalled. "Many of them remarked, unprovoked. This is my favorite test." Not so for those praised for their smarts. They assumed their failure was evidence that they weren't really smart at all. "Just watching them, you could see the strain. They were sweating and miserable."
- Having artificially induced a round of failure, Dweck's researchers then gave all the fifth-graders a final round of tests that were engineered to be as easy as the first round. Those who had been praised for their effort significantly improved on their first score—by about 30 percent. Those who'd been told they were smart did worse than they had at the very beginning—by about 20 percent.
- **I like** how you keep trying.
- Life Sciences is a health-science magnet school with high aspirations but 700 students whose main attributes are being predominantly minority and low achieving. Blackwell split her kids into two groups for an eight-session workshop. The control group was taught study skills, and the others got study skills and a special module how intelligence is not innate. These students took turns reading aloud an essay on how the brain grows new neurons when challenged. They saw slides of the brain and acted out skits. "Even as I was teaching these ideas," Blackwell noted, "I would hear the students joking, calling one another 'dummy' or 'stupid.'" After the module was concluded, Blackwell tracked her students' grades to see if it had any effect.
- It didn't take long. The teachers—who hadn't known which students had been assigned to which workshop—could pick out the students who had been taught that intelligence can be developed.

They improved their study habits and grades. In a single semester. Blackwell reversed the students' longtime trend of decreasing math grades.

- The only difference between the control group and the test group were two lessons, a total of 50 minutes spent teaching not math but a single idea: that the brain is a muscle. Giving it a harder workout makes you smarter. That alone improved their math scores.
- Baumeister has come to believe the continued appeal of self-esteem is largely tied to parents' pride in their children's achievements: it's so strong that "when they praise their kids, it's not that far from praising themselves."
- Psychologist Wulf-Uwe Meyer, a pioneer in the field, conducted a series of studies during which children watched other students receive praise. According to Meyer's findings, by the age of twelve. Children believe that earning praise from a teacher is not a sign you did well—it's actually a sign you lack ability and the teacher thinks you need extra encouragement. They've picked up the pattern: kids who are falling behind get drowned in praise. Teens, Meyer found, discounted praise to such an extent that they believed it's a teacher's criticism—not praise at all—that really conveys a positive belief in a student's aptitude.
- In the opinion of cognitive scientist Daniel T. Willingham, a 'teacher who praises a child may be unwittingly sending the message that the student reached the limit of his innate ability, while a teacher who criticizes a pupil conveys the message that he can improve his performance even further.
- Brushing aside failure, and just focusing on the positive, isn't the norm all over the world. A young scholar at the University of Illinois, Dr. Florrie Ng, reproduced Dweck's paradigm with fifth graders both in Illinois and in Hong Kong. Ng added an interesting dimension to the experiment. Rather than having the kids take the short IQ tests at their school, the children's mothers brought them to the scholars' offices on campus (both in Urbana-Champaign and at the University of Hong Kong). While the moms sat in the waiting room, half the kids were randomly given the really hard test, where they could get only about half right—inducing a sense of failure. At that point, the kids were given a five-minute break before the second test, and the moms were allowed into the testing room to talk with their child. On the way in, the moms were told their child's actual score and were told a lie—that this score represented a below average result. Hidden cameras recorded the five-minute interaction between mother and child.
- **The American** mothers carefully avoided making negative comments. They remained fairly upbeat and positive with their child. The majority of the minutes were spent talking about something other than the testing at hand, such as what they might have for dinner. But the Chinese children were likely to hear, "You didn't concentrate when doing it," and "Let's look over your test." The majority of the break was spent discussing the test and its importance. After the break, the Chinese kids' scores on the second test jumped 33 percent, more than twice the gain of the Americans. The trade-off here would seem to be that the Chinese mother; acted harsh or cruel—but that stereotype may not reflect modern parenting in Hong Kong. Nor was it quite what Ng saw on the videotapes. While their words were firm, the Chinese mothers actually smiled and hugged their children every bit as much as the American mothers (and were no more likely to frown or raise their voices).
- But it turns out that the ability to repeatedly respond to failure by exerting more effort—instead of simply giving up—is a trait well studied in psychology. People with this trait, persistence, rebound well and can sustain their motivation through long periods of delayed gratification.

Delving into this research, I learned that persistence turns out to be more than a conscious act of will; it's also an unconscious response, governed by a circuit in the brain.

- Cloninger has trained rats and mice in mazes to have persistence by carefully not rewarding them when they get to the finish. “The key is intermittent reinforcement,” says Cloninger. The brain has to learn to learn that frustrating spells can be worked through. ‘A person who grows up getting too frequent rewards will not have persistence, because they’ll quit when the rewards disappear.
- Truth be told, while my son was getting along fine under the new praise regime, it was I who was suffering. It turns out that I was the real praise junkie in the family. Praising him for just a particular skill or task felt like I left other parts of him ignored and unappreciated. I recognized that praising him with the universal “You’re great—I’m proud of you” was a way I expressed unconditional love.
- Offering praise has become a sort of panacea for the anxieties of modern parenting. Out of our children’s lives from breakfast to dinner, we turn it up a notch when we get home. In those few hours together, we want them to hear the things we can’t say during the day—we are in your corner, we are here for you, we believe in you.
- In a similar way, we put our children in high-pressure environments, seeking out the best schools we can find, then we use the constant praise to soften the intensity of those environments. We expect so much of them, but we hide our expectations behind constant glowing praise. For me, the duplicity became glaring.
- Eventually, in my final stage of praise withdrawal, I realized that not telling my son he was smart meant I was leaving it up to him to make his own conclusion about his intelligence. Jumping in with praise is like jumping in too soon with the answer to a homework problem—it robs him of the chance to make the deduction himself.
- But what if he makes the wrong conclusion? Can I really leave this up to him, at his age? I’m still an anxious parent. This morning, I tested him on the way to school: “What happens to your brain, again, when it gets to think about something hard?” “It gets bigger, like a muscle,” he responded, having aced this one before.

TWO the lost hour

- Around the world, children get an hour less sleep than they did thirty years ago. The cost: IQ points. Emotional well-being, ADHD, and obesity.
- The opinion of Heather’s pediatrician is typical. According to surveys by the National Sleep Foundation, 90% of American parents think their child is getting enough sleep. The kids themselves say otherwise: 60% of high schoolers report extreme daytime sleepiness. A quarter admit their grades have dropped because of it. Depending on what study you look at, anywhere from 20% to 33% are falling asleep in class at least once a week.
- **Only 5%** of high school seniors average eight hours a night of sleep. Sure, we remember being tired but we went to school. But not like today’s kids.
- The surprise is not merely that sleep matters—but how much it matters, demonstrably, not just to academic performance and emotional stability, but to phenomena that we assumed to be entirely unrelated, such as the international obesity epidemic and the rise of ADHD. A few scientists theorize that sleep problems during formative years can cause permanent changes in a child’s

brain structure— damage that one can't sleep off like a hangover. It's even possible that many of the hallmark characteristics of being a tweener and teen—moodiness, depression, and even binge eating—are actually just symptoms of chronic sleep deprivation.

- Dr. Avi Sadeh at Tel Aviv University is one of the dozen or so bigwigs in the field, frequently collaborating on papers with the sleep scholars at Brown University. A couple years ago, Sadeh sent 77 fourth-graders and sixth-graders home with the randomly drawn instructions to either go to bed earlier or stay up later, for three nights. Each child was given an Actigraph—a wristwatch-like device that's equivalent to a seismograph for sleep activity—which allows the researchers to see how much sleep a child is really getting when she's in bed. Using the actigraphy, Sadeh's team learned that the first group managed to get 30 minutes more of true sleep per night. The latter got 31 minutes less of true sleep.
- After the third night's sleep. A researcher went to the school in the morning to give the children a test of neurobiological functioning. The test, a computerized version of parts of the Wechsler Intelligence Scale for Children, is highly predictive of current achievement test scores and how teachers rate a child's ability to maintain attention in class.
- Dr. Monique LeBourgeois, also at Brown, studies how sleep affects prekindergarten. Virtually all young children are allowed to stay up later on weekends. They don't get less sleep, and they're not sleep deprived—they merely shift their sleep to later at night on Fridays and Saturdays. Yet she's discovered that the sleep shift factor alone is correlated with performance on a standardized IQ test. Every hour of weekend shift costs a child seven points on the test. Dr. Paul Suratt at the University of Virginia studied the impact of sleep problems on vocabulary test scores taken by elementary school students. He also found a seven-point reduction in scores. Seven points, Suratt notes, is significant: "Sleep disorders can impair children's IQ as much as lead exposure."
- These correlations really spike in high school, because that's when there's a steep drop-off in kids' sleep. University of Minnesota's Dr. Kyla Wahlstrom surveyed over 7,000 high schoolers in Minnesota about their sleep habits and grades. Teens who received As averaged about fifteen more minutes sleep than the B students, who in turn averaged fifteen more minutes than the C's, and so on. Wahlstrom's data was an almost perfect replication of results from an earlier study of over 3,000 Rhode Island high schoolers by Brown's Carskadon. Certainly, these are averages, but the consistency of the two studies stands out. Every fifteen minutes counts.
- Tired children can't remember what they just learned, for instance, because neurons lose their plasticity, becoming incapable of forming the new synaptic connections necessary to encode a memory.
- Walker explains that during sleep, the brain shifts what it learned that day to more efficient storage regions of the brain. Each stage of sleep plays its own unique role in capturing memories. For example, studying a foreign language requires learning vocabulary, auditory memory of new sounds, and motor skills to correctly enunciate the new word. The vocabulary is synthesized by the hippocampus early in the night during "slow-wave sleep," a deep slumber without dreams. The motor skills of enunciation are processed during stage 2 non-REM sleep, and the auditory memories are encoded across all stages. Memories that are emotionally laden get processed during REM sleep. The more you learned during the day, the more you need to sleep that night.
- The best known of these is Edina, Minnesota, an affluent suburb of Minneapolis, which changed its high school start times from 7:25 to 8:30. The results were startling, and it affected the brightest kids the most. In the year preceding the time change, math/verbal SAT scores for the top

10% of Edina's 1,600 students averaged 683/605. A year later, the top 10% averaged 739/76. In case you're too drowsy to do that math, getting another hour of sleep boosted math SAT scores of Edina's Best and Brightest up 56 points, and their verbal SAT score a whopping 156 points. ("Truly flabbergasting," gasped a stunned and disbelieving Brian O'Reilly, the College Board's Executive Director for SAT Program Relations, when he heard the results.) And the students reported higher levels of motivation and lower levels of depression. In short, an hour more of sleep improved students' quality of life.

- Dr. Mark Mahowald has heard all those arguments. As Director of the Minnesota Regional Sleep Disorders Center, he's been at the center of many school start time debates. But of all the arguments he's heard, no one's argument is that children learn more at 7:15 a.m. than at 8:30. Instead, he forcefully reasons, schools are scheduled for adult convenience: there's no educational reason we start schools as early as we do. "If schools are for education, then we should promote learning instead of interfering with it," he challenges.
- Three of those studies showed strikingly similar results. One analyzed Japanese first graders, one Canadian kindergarten boys, and I Australian young boys the third. They showed that those kids who get less than eight hours sleep have about a 300% higher rate of obesity than those who get a full ten hours of sleep.
- Research in the Houston public schools proved this isn't just fattening up young kids. Among the middle schoolers and high schoolers studied, the odds of obesity went up 80% for each hour of lost sleep.
- Van Cauter has gone on to discover that the stage of slow-wave sleep is especially critical to proper insulin sensitivity and glucose tolerance. When she lets subjects sleep, but interrupts them with gentle door knocks just loud enough to keep them from passing into the slow-wave stage (without actually waking the subjects). Their hormone levels respond in a way that's akin to a weight gain of twenty to thirty pounds. As previously noted, children spend over 40% of their asleep time in this slow-wave stage, while older adults are in this stage only about 4% of the night. This could explain why the relationship between poor sleep and obesity is much stronger in children than in adults.
- The CDC now recommends that high schools consider later starts: its representatives are now opining that a change in school start times can change lives.
- **But perhaps** we are blind to the toll it is taking on us. University of Pennsylvania's Dr. David Dinges did an experiment shortening adults' sleep to six hours a night. After two weeks, they reported that they were doing okay. Yet on a battery of tests, they proved to be just .as impaired as someone who has stayed awake for 24 hours straight.

THREE – why white parents don't talk about race

- The researchers found this worked wonders on the first-grade children. Having been in the cross-race study groups led to significantly more cross-race play. But it made no difference on the third grade children. It's possible that by third grade, when parents usually recognize it's safe to start talking a little about race, the developmental window has already closed.
- Calling attention to this can feel taboo. Bigler is an adamant proponent of desegregation in schools, on moral grounds. "It's an enormous step backward to increase social segregation," she

commented. But it's important for parents to know that merely sending your child to a diverse school is no guarantee they'll have better racial attitudes than children at homogenous schools.

- Moody found that the more diverse the school, the more the kids self-segregate by race and ethnicity within the school, and thus the likelihood that any two kids of different races have a friendship goes down.
- To be effective, researchers have found, conversations about race have to be explicit, in unmistakable terms that children understand.
- Bigler ran a study where children read brief historical biographies of famous African Americans. For instance, in a biography of Jackie Robinson, they read that he was the first African American in the major leagues. But only half heard about how he'd previously been relegated to the Negro leagues, and how he suffered taunts from white fans. Those facts—in five brief sentences—were omitted in the version given to the other half of the children. After the two-week history class, the children were surveyed on their racial attitudes. White children who got the full story about historical discrimination had significantly better attitudes toward blacks than those who got the neutered version. Explicitness works. Also made them feel some guilt,” Bigler added. “It knocked down their glorified view of white people.” They couldn't justify in-group superiority.
- Bigler is very cautious about taking the conclusion of her Jackie Robinson study too far. She notes the bios were explicit, but about historical discrimination. “If we'd had them read stories of contemporary discrimination from today's newspapers, it's quite possible it would have made the whites defensive, and only made the blacks angry at whites.”

FOUR – why kids lie.

- Similarly, the parent's first defense against his child's tendency to lie is, “Well, I can tell when they're lying.” Talwar's proven that to be a myth.
- **According to** Dr. Paul Ekman, a pioneer of lying research at UC San Francisco, here's an example of how that plays out. On the way home from school on Tuesday, a dad promises his five-year-old son that he'll take him to the baseball game on Saturday afternoon. When they get home. Dad learns from Mom that earlier in the day, she had scheduled a swim lesson for Saturday afternoon and can't change it. When they tell their son, he gets terribly upset, and the situation melts down. Why is the kid so upset? Dad didn't know about the swim lesson. By the adult definition. Dad did not lie. But by the kid definition. Dad did lie. Any false statement—regardless of intent or belief—is a lie. Therefore, unwittingly. Dad has given his child the message that he condones lies.
- Thrown into elementary school, many kids begin lying to their peers as a coping mechanism: it's a way to vent frustration or get attention. They might be attempting to compensate, feeling they're slipping behind their peers. Any sudden spate of lying, or dramatic increase in lying, is a sign that something has changed in that child's life, in a way that troubles him: “Lying is a symptom—often of a bigger problem behavior,” explained Talwar. “It's a strategy to keep themselves afloat.”
- In Talwar's peeking game, sometimes the researcher pauses the game with, “I'm about to ask you a question. But before I do that, you promise to tell the truth?” (Yes, the child answers.) “Okay, did you peek at the toy when I was out of the room?” This promise cuts down lying by 25%.

- Meanwhile, hearing George Washington and the Cherry Tree reduced lying a whopping 75% in boys, and 50% in girls.
- Increasing the threat of punishment for lying only makes children hyperaware of the potential personal cost. It distracts the child from learning how his lies impact others. In studies, scholars find that kids who live in threat of consistent punishment don't lie less. Instead, they become better liars, at an earlier age—learning to get caught less often.
- **Meaning**, in these decisive moments, they want to know how to get back into your good graces. So it's not enough to say to a six-year old, "I will not be upset with you if you peeked, and if you tell the truth you'll be really happy with yourself" That does reduce lying quite a bit—but a six-year-old doesn't want to make himself happy. He wants to make the parent happy.
- **What really** works is to tell the child, "I will not be upset with you if you peeked, and if you tell the truth, will be really happy." This is an offer of both immunity and a clear route back to good standing. Talwar explained this latest finding: "Young kids are lying to make you happy—trying to please you." So telling kids that the truth will make a parent happy challenges the kid's original thought that hearing good news—not the truth—is what will please the parent. That's why George Washington and the Cherry Tree work so well. Little George receives both immunity and praise for telling the truth.
- The other reason children lie, according to Talwar, is that they learn it from us. Talwar challenged that parents need to really consider the importance of honesty in their own lives. Too often, she finds, parents' own actions show kids an ad hoc appreciation of honesty. "We don't explicitly tell them to lie, but they see us do it. They see us tell the telemarketer, 'I'm just a guest here.'" They see us boast and lie to smooth social relationships."
- Consider how we expect a child to act when he opens a gift he doesn't like. We expect him to swallow all his honest reactions— anger, disappointment, frustration—and put on a polite smile. Talwar runs an experiment where children play various games to win a present, but when they finally receive the present, it's a lousy bar of soap. After giving the kids a moment to overcome the shock, a researcher asks them how they like it. Talwar is testing their ability to offer a white lie, verbally, and also to control the disappointment in their body language. About a quarter of preschoolers can lie that they like the gift—by elementary school, about half. Telling this lie makes them extremely uncomfortable, especially when pressed to offer a few reasons for why they like the bar of soap. They frown; they stare at the soap and can't bring themselves to look the researcher in the eye. Kids who shouted with glee when they won the peeking game suddenly mumble quietly and fidget.
- Meanwhile, the child's parent is watching. They almost cheer when the child comes up with the white lie. "Often the parents are proud that their kids are polite—they don't see it as lying," Talwar remarked. Despite the number of times she's seen it happen, she's regularly amazed at parents' apparent inability to recognize that a white lie is still a lie.
- But tattling has received some scientific interest, and researchers have spent hours observing kids at play. They've learned that nine out of ten times a kid runs up to a parent to tell, that kid is being completely honest. And while it might seem to a parent that tattling is incessant, to a child that's not the case—because for every one time a child seeks a parent for help, there were fourteen other instances when he was wronged and did not run to the parent for aid.
- When the child—who's put up with as much as he can handle finally comes to tell the parent the honest truth, he hears, in effect. "Stop bringing me your problems!" According to one

researcher's work, parents are ten times more likely to chastise a child for tattling than they are to chide a child who lied.

- Despite his umbrage at others' lies, Luke's not beyond attempting his own cover-ups. Just the other day, he came home from school having learned a new phrase and a new attitude—quipping “I don't care,” snidely, and shrugging his shoulders to everything. He was suddenly acting like a teenager, unwilling to finish his dinner or complete his homework. He repeated “I don't care” so many times I finally got frustrated and demanded to know if someone at school had taught him this dismissive phrase.
- He froze. And I could suddenly intuit the debate running through his head: should he lie to his dad, or rat out his friend? I knew from Talwar's research that I'd lose that one. Recognizing this, I stopped him and I told him that if he'd learned the phrase at school, he did not have to tell me who had taught him the phrase. Telling me the truth was not going to get his friends in trouble. “Okay,” he said, relieved. “I learned it at school.” Then he told me he did care, and gave me a hug. I haven't heard that phrase again.
- Talwar says parents often entrap their kids, putting them in positions to lie and testing their honesty unnecessarily. Last week, I put my three-and-a-half-year-old daughter in that exact situation. I noticed she had scribbled on the dining table with a washable marker. With disapproval in my voice I asked, “Did you draw on the table, Thia?” In the past, she would have just answered honestly, but my tone gave away that she'd done something wrong. Immediately, I wished I could retract the question and do it over. I should have just reminded her not to write on the table, slipped newspaper under her coloring book, and washed the ink away. Instead, I had done exactly what Talwar had warned against. “No, I didn't,” my daughter said, lying to me for the first time. For that stain, I had only myself to blame.

FIVE—the search for intelligent life in kindergarten.

- If a child is six years old, she might be read four numbers aloud (such as 9, 4, 7, 1) asked to repeat them. If she gets them right. She'll move up to five numbers. If she can do seven numbers, she'll score in the 99th percentile. Then she'll be asked to repeat a number sequence in reverse order; correctly repeating four numbers back ward counts as gifted.
- The tests vary by what exactly they examine. Some are forms of a classic intelligence test—for instance, the Wechsler Preschool and Primary Scale of Intelligence, known by its acronym, WPPSI. Other schools opt for an exam that doesn't strictly measure IQ, they might use a test of reasoning ability, such as the Cognitive Abilities Test, or a hybrid test of intelligence and learning aptitude, such as the Otis-Lennon School Ability Test.
- Regardless of what is being tested, or which test is used, they all have one thing in common. They're all astonishingly ineffective predictors of a young child's academic success.
- “You see growth leveling off in a lot of kids.” As a result. Rock believes third grade is when testing becomes meaningful. “Kids' rank ordering in third grade is very meaningful. If we measure reading in third grade, it can predict performance much later, in a lot of areas.”
- In the last decade, several leading approaches to measuring emotional intelligence have emerged. One test, the MSCEIT, comes from the team that originally coined the term “emotional intelligence”—including Dr. Peter Salovey, Dean of Yale College.

- In a meta-analysis of these studies, scholars concluded that the correlation between emotional intelligence and academic achievement was only 0.10.

SIX – the sibling effect.

- Dr. Laurie Kramer, Associate Dean at the University of Illinois
- It was clear what she’s up against, after just a few minutes with parents who have enrolled their children in Kramer’s six-week program, “More Fun with Sisters and Brothers.” ‘
- Observational studies have determined that siblings between the ages of three and seven clash 3.5 times per hour, on average. Some of those are brief clashes, others longer, but it adds up to ten minutes of every hour spent arguing.
- Kramer learned that sibling relationship quality is remarkably stable over the long term. Unless there had been some major life event in the family—an illness, a death, a divorce—the character of the relationship didn’t change until the eldest moved out of the house. For the most part, the tone established when they were very young. Be it controlling and bossy or sweet and considerate, tended to stay that way.
- Kramer often hears, “But I fought with my brothers and sisters all the time, and we turned out great.” She doesn’t disagree. Instead, she points out that in many sibling relationships, the rate of conflict can be high, but the fun times in the backyard and in the basement more than balance it out. This net-positive is what predicts a good relationship later in life. In contrast, siblings who simply ignored each other had less fighting, but their relationship stayed cold and distant long term.
- Instead, the thrust of Kramer’s program is made in its title—getting siblings to enjoy playing together. The six hour long sessions are meant to be a fun camp for siblings to attend. Most activities that kids have scheduled into their lives are age segregated—siblings go off with children their own size. Here, they stick together.
- Kramer has fine-tuned her scripts for the sessions over the years. But probably the most innovative aspect of her program isn’t in those details—it’s that she focuses on the children at all. Other scholars assumed that four-year-olds were too young, so they directed their training at parents, trying to coach them how to respond to sibling fights. In Kramer’s program, fewer fights are the consequence of teaching the children the proactive skills of initiating play on terms they can both enjoy. It’s convict prevention, not conflict resolution. Parents are mere facilitators; when back at home, their job is to reinforce the rule that the kids should use their steps together to work it out, without the parents’ help.
- Rebecca may be right on target. In one of her studies, Kramer had a control group of kids come in for six weeks of reading books aloud and discussing cartoons that depicted sibling story lines. These were typical products any parent might share with his kids, hoping they would help the kids get along better—the Berenstain Bears series. Sesame Street books, and the like. Kramer figured these kids’ relationships with their siblings would improve, but she crossed her fingers that they wouldn’t improve more than the kids in her program.
- But Kramer started getting complaints from parents after just a couple weeks. While the books and videos always ended on a happy note, with siblings learning to value and appreciate each other, the first half of the stories portrayed in vivid detail ways that children can fight, insult, and devalue their siblings. “From these books, the kids were learning novel ways to be mean to their

younger siblings they'd never considered," Kramer recalled. Sure enough, after six weeks, the sibling relationship quality had plummeted.

SEVEN—the science of teen rebellion.

- The big surprise in the research is when this need for autonomy is Strongest. It's not mild at 12, moderate at 15, and most powerful at 18. Darling's scholarship shows that the objection to parental authority peaks around age 14 to 15. In fact, this resistance is slightly Stronger at age 11 than at 18. In popular culture, we think of high school as the risk years, but the psychological forces driving deception surge earlier than that.
- **The Mod Squad study** did confirm Linda Caldwell's hypothesis that teens turn to drinking and drugs because they're bored in their free time. After the study's completion, Caldwell wondered if there was a way to help kids fend off boredom. Rather than just badgering kids with the message "Don't Do Drugs," wouldn't it be more effective to teach them how else to really enjoy their free time;
- The more controlling the parent," Caldwell explained, "the more likely a child is to experience boredom."
- In the families where there was less deception, there was a much higher ratio of arguing/complaining. Arguing was good—arguing was honesty. The parents didn't necessarily realize this. The arguing stressed them out.
- Far more believe that fighting strengthen their relationship with their mother.
- Well, the narrow definition of pushover parents are those who give in to their kid because they can't stand to see their child cry, or whine. They placate their children just to shut them up. They want to be their kid's friend, and they're uncomfortable being seen as the bad guy. That's not the same as a parent who makes sure her child feels heard, and if the child has made a good argument for why a rule needs to be changed, lets that influence her decision.
- Nancy Darling found the same distinction. The type of parents who were lied to the least had rules and enforced them consistently. But they had found a way to be flexible that allowed the rule-setting process to still be respected.

EIGHT – can self-control be taught?

- In 1999, the School of Public Health at Johns Hopkins University reported that nine school districts that eliminated Driver's Education experienced a 27% drop in auto accidents among 16- and 17-year-olds.
- Among scholars, interventions considered to be really great often have an effect size of something like 15%, which means that 15% of children altered their targeted behavior, and therefore 85% did no alter it. Interventions with an effect size of only 4% can still be considered quite good, statistically—even though they have no effect on 96% of the students.
- Does this mean the bar is too low for scholars? Not really. Instead, what this data indicates is that human behavior is incredibly stubborn. We're hard to budge off our habits and proclivities. While it's possible to inspire a few people to change, it's nearly impossible to change a majority of us, in any direction. Interventions for children are even more of a challenge—since developmentally, kids are by definition a moving target.

- In one famous Russian study from the 1950s, children were told to stand still as long as they could—they lasted two minutes. Then a second group of children were told to pretend they were soldiers on guard who had to stand still at their posts—they lasted eleven minutes.
- “The advantage of little kids,” explained Bodrova, “is they don’t yet know that they aren’t good at something. When you ask a child to copy something on the board the teacher has written, he might think, ‘I can’t write as good as the teacher,’ so then he doesn’t want to do it. But hand a notepad to the child who is pretending to be a waiter in a pizza parlor. Johnny ordered cheese pizza, you ordered pepperoni. They don’t know if they can write it or not—they just know that they have to do something to remember the pizza orders. They end up doing more writing than if you asked them to write a story.”
- Tools does this by encouraging that voice in the head, private Speech, by first teaching kids to do it out loud—they talk themselves through their activities. When the kids are learning the capital C, they all say in unison, “Start at the top and go around” as they start to print. No one ever stops the kids from saying it out loud, but after a few minutes, the Greek chorus ends. In its place is a low murmur. A couple minutes later, a few kids are still saying it out loud—but most of the children are saying it in their heads. A few kids don’t even realize it, but they’ve kept silently mouthing the instructions to themselves.
- Kids who are doing well in school know it; when they write down their answer, they know whether or not their answer is correct. They have a subtle sense, a recognition of whether they’ve gotten it right. Children who are struggling are genuinely unsure; they might get the right answer, but lack such awareness. So to develop this awareness, when a Tools teacher writes a letter on the board, she writes four versions of it and asks the kids to decide which is the best D. Leong explained, “This is designed to trigger self-analysis of what a good D looks like and what would they like their own D’s to look like. They think about their work, when they think about hers.”
- This notion comes under many names in the research: effortful control, impulsivity, self-discipline. Depending on the way it’s measured, the predictive values of self-discipline in many cases are better than those of IQ scores. In simpler words, being disciplined is non important than being smart. Being both is not just a little better—it exponentially better. In one study. Dr. Clancy Blair, of Pennsylvania State University, found that children who were above average in IQ and executive functioning were 300% more likely to do well in math class than children who just had a high IQ alone.
- Both Ashley and I have borrowed some of the Tools of the Mind strategies. Children of every grade show up in the evenings at Ashley’s tutoring facility; she now makes them write down a plan for how they’ll spend their two hours, to teach them to think proactively. When they get distracted, she refers them back to their plan. She no longer simply corrects children’s grammar mistakes in their homework; instead, she first points to the line containing the mistake, and asks the child to find it. This makes them think critically about what they’re doing rather than mechanically completing the assignment. With kindergartners who are just learning to write, Ashley has them use private speech as they form a letter, saying aloud, “Start at the top and go around...” I use similar techniques with my daughter. Every night, she comes home from preschool with a page of penmanship, filled with whatever letter she learned that day. I ask her to circle the best example on each line—so she’ll recognize the difference between a good one and a better one. At bedtime, she and I do a version of buddy reading: after I’ve read her a book, I hand it to her. Then she tells the story back to me, creatively narrating from the illustrations and

whatever lines she remembers verbatim. Occasionally, when she and I have the whole day together, we write up a plan for what we'll do. (I wish I did this more, because she loves it.) I also give her prompts that extend her play scenarios. For instance, she loves baby dolls; she'll collect them all, and put them to bed—this might take five or ten minutes. At that point, she no longer knows what to do. So I'll encourage her to wake the babies up, take them to school, and go on a field trip. That's usually all it takes to spark her imagination for over an hour.

NINE—plays well with others.

- Essentially, Ostrov had just found that Arthur is more dangerous for children than Power Rangers.
- **Under the** supervision of Professor Dr. Cynthia Scheibe, Ithaca undergrads patiently studied 470 half-hour television programs commonly watched by children, recording every time a character insulted someone, called someone a mean name, or put someone down. Scheibe's analysis subsequently revealed that 96% of all children's programming includes verbal insults and put-downs, averaging 7.7 put-downs per half-hour episode. Programs specifically considered "pro-social" weren't much better—66.7% of them still contained insults. Had the insult lines been said in real life, they would have been breathtaking in their cruelty. ("How do you sleep at night knowing you're a complete failure?" from SpongeBob SquarePants.) We can imagine educational television might use an initial insult to then teach a lesson about how insults are hurtful but that never was the case, Schiebe found. Of the 2,628 put-downs the team identified. In only 50 instances was the insulter reprimanded or corrected—and not once in an educational show. Fully 84% of the time, there was either only laughter or no response at all.
- **"The arguments** can become pretty intense, and yet if it's resolved, kids are okay with it." Most kids were just as happy at the conclusion of the session as they were when witnessing a friendly interaction between parents. What this means is that parents who pause mid-argument to take it upstairs—to spare the children—might be making the situation far worse, especially if they forget to tell their kids, "Hey, we worked it out." Cummings has also found that when couples have arguments entirely away from the kids, the kids might not have seen any of it but are still well aware of it, despite not knowing any specifics.
- When we changed the channel from violent television to tamer fare, kids just ended up learning the advanced skills of clique formation, friendship withdrawal, and the art of the insult.

TEN – why Hanna talks and Alyssa doesn't

- He also cites a long trail of scholarship, back to B.F. Skinner, on how intermittent rewards are ultimately more powerful than constant rewards.

Conclusion.

- In one celebrated example. Dr. Robert Emmons, of the University of California at Davis, asked college students to keep a gratitude journal—over ten weeks, the undergrads listed five things that had happened in the last week which they were thankful for. The results were surprisingly powerful—the students who kept the gratitude journal were 25% happier, were more optimistic about the future, ' and got sick less often during the controlled trial. They even got more exercise.