

NurtureShock: New Thinking About Children Study Guide

NurtureShock: New Thinking About Children by Po Bronson

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Plot Summary

Nurtureshock by Po Bronson and Ashley Merryman describes the effects of new scientific research on old beliefs about child development and education. Ranging from language acquisition to lying and measuring intelligence for gifted programs to devising strategies for resolving conflicts between children, and the effect of praise and sleep patterns on children's development, Bronson and Merryman show that the old assumptions about how children function are often faulty. They run against what scientists have learned about hormonal development, brain chemistry and wiring, and, oftentimes, plain commonsense experience. While parents and teachers are good at eliciting behavior that makes the adults feel good about their accomplishments with the children, Bronson says that more often, the children really benefit from strategies that follow two rules: pay attention to the child's developmental needs, and recognize the complexity of overlapping desirable and undesirable traits like lying, which can be useful, and teens arguing with parents, which can actually be a sign of respect.

Almost all of the chapters in Nurtureshock follow the same pattern: Bronson describes the old science, describes the research that was done more recently, and then describes either the successes the researchers had when they implemented new programs, or describes the new facts researchers have discovered about the complexity of children's behavior.

The ten chapters in Nurtureshock address the following topics in child development and education: praise and its effects on children's esteem; the benefits of sleep for child development; the consequences of white parents refusing to talk about race; why kids lie; whether tests can measure giftedness in kindergarteners; whether siblings affect children's development; how to read teen rebellion; how to teach self-control; how to resolve students' conflicts, and how students acquire language. The conclusion, which is ostensibly about the study of happiness in students, is really a meta-analysis of the process by which tricky problems like happiness—or any of the other topics in the book—are studied. Focusing on how researchers have modified their studies, Bronson and Merryman propose that theories do better when they attend to the children's behaviors recognizing the full complexity of children's concerns and experiences, instead of foisting adult ideas and values on children.



Preface, Introduction and Chapter 1

Preface, Introduction and Chapter 1 Summary and Analysis

Preface: In the preface, Bronson says that at the Magic Castle, a magic club in Hollywood, Cary Grant used to work as a doorman, posing as a Cary Grant look-alike. Bronson says that Grant threw the patrons off—hardly anyone recognized him, and from this he concludes that the Real Thing often escapes people's notice, because of what he calls the 24-7 news cycle, which looks for entertainment value in everything, but overlooks all real values. Nevertheless, Bronson says that the scientific understanding of childhood has changed, and that like the patrons walking right past Cary Grant, we have not seen the new consensus.

Introduction: Thinking about a paint-by-numbers painting his wife has saved from her mother's estate, Bronson says that parenting is like painting by the numbers: you do what the child development books say. But he says that by parenting on instinct, he and his wife and his co-author Ashley Merryman had missed the changes in the science of childhood. He says that he and Merryman had written a piece on self-confidence in children, and found that positive reinforcement was backfiring, contrary to their expectations. Similarly, he says that they had always used the term 'instinct' too broadly. It is an actual instinct to protect and nurture, but Bronson says that the instinct does not contain instructions about how that should be done. But he says that "what we imagined were our 'instincts' were instead just intelligent, informed reactions. Things we had figured out. Along the way, we also discovered that those reactions were polluted by a hodgepodge of wishful thinking, moralistic biases, contagious fads, personal history, and old (disproved) psychology—all at the expense of common sense" (p. 6). Bronson says that the book encourages readers to 'rethink' many sacred cows, and proposes that if the book inspires changes, it could "alter the character of society long-term, one future-citizen at a time" (p. 7).

Chapter 1: Bronson introduces the reader to Thomas, a smart child who nonetheless resists new subjects, for fear that he will not be good at them, and Bronson says that it is not uncommon for smart children to "severely underestimate their abilities...they underrate the importance of effort, and they overrate how much help they need from a parent" (p. 12).

While many parents think that it is good to reinforce children's intelligence, Bronson says that the science indicates that praise might even cause underperformance. Bronson describes the work of Dr. Carol Dweck, who found that 'smart' children would choose easier tasks than students labeled 'hard-working.' She also found that 'smart' students were more easily hobbled by adversity, whereas 'hard-working' students could rise to the challenge of harder work. She concludes that "emphasizing effort gives children a variable they can control...emphasizing natural intelligence takes it out of the children's control, and it provides no good recipe for responding to a failure" (p. 15).



According to Bronson, the culture of self-esteem became powerful following a 1969 book, *The Psychology of Self-Esteem*, but a 2003 literature review concluded that the movement was based on false premises, and could easily be proven wrong. He quotes studies that show how suspicious children are of praise: They see it as an indicator of failure, that a child receiving praise must need to be encouraged.

Bronson says that Americans tend to be over-praised relative to children in other cultures, particularly children in China. In a study, Chinese parents did not ignore their students' difficulties, they worked with them, and helped them approve their scores, whereas American parents overlooked the difficulties, offered praise, but did not help.

In concluding this chapter, Bronson says that he was reticent about using Dweck's conclusions on his own child, but he says that the psychological benefits of making an effort have been well documented. Praise sets off a predictable reaction in children's brains, and parents can literally make their children praise junkies, who have an almost chemical need for praise, instead of learning to build the brain by trying, experimenting and learning. Bronson confesses that his child adapted quickly to the new regime, but he himself found it difficult to issue judicious praises.

Analysis

Preface: The Preface acts as a temptation to the reader: there is a new consensus, and like a famous person right in front of us, we are failing to recognize it. There is no mention of the contents of the new consensus, though.

Introduction: In the introduction, Bronson says that it took a long time before he could examine his assumptions about parenting, and the nature of childhood. But once he started to see the new science, his assumptions were unsettled. He urges the reader to see things differently as well. According to Bronson, the changes that should follow from this book might have a significant effect on society.

Chapter 1: Bronson's analysis of the science that has come from the last thirty years of social science is eye-opening, for the effect it has on changing parental strategies for raising children. While he is not as specific as he might be, in terms of where his conclusions might be applied, his narrative is convincing within its scope, and he deserves credit for looking beyond the children themselves to the parental psychology surrounding issues like praise—and then for finding this psychology in his own behavior. It makes his account look more legitimate, that he is willing to test it in his own house.



Chapters 2 and 3

Chapters 2 and 3 Summary and Analysis

Chapter 2: Bronson says that sleep scientists have determined that the lack of sleep has dramatic effects on the brain, since much of the brain's growth and development takes place during sleep. Because children today lose an hour of sleep, on average, each night, compared with thirty years ago, children today are more prone to ADHD, obesity, and overall poor performance.

Bronson says that when Dr. Sadeh, a researcher at Tel Aviv University, tested children's performance based on their sleep patterns, he found that the performance gap was considerable, like the difference between two grade years.

MRI data has shown that tiredness affects learning in addition to cognition. Because the brain recharges and builds upon its memories during sleep, children need to sleep in direct proportion to how much they are learning during the day. Bronson says that sleep-deprived students also have an easier time remembering negative things than positive things.

According to Bronson, Dr. Carskaden at Brown University has researched the sleep schedule shift that takes place during adolescence. This shift pushes their bedtimes back naturally, and research has led to movements to move high school start times back to allow students to sleep better. At a school in Minnesota, where start times were pushed back, students improved their test scores dramatically, and also reported less depression. In Lexington, Kentucky, moving the start time decreased the rate of car accidents for young drivers.

Bronson says that while Americans have typically blamed TV watching for the obesity epidemic, there is no science to support this connection. He says that the lack of sleep plays a big part as well, since disruptions from early school start times release a stress hormone which leads to hunger. "All the studies point in the same direction: on average, children who sleep less are fatter than children who sleep more" (p. 40). Not only aren't sleeping children eating as much (because they are sleeping more) but they have more energy for exercise, and less hormonal urge to eat. After numerous schools and studies have documented the effects of sleep on obesity, the American Center for Disease Control finally urged schools to start later.

Chapter 3: Bronson describes Birgitte Vittrup's research into the effects of multicultural teaching aids on racial attitudes. Vittrup concluded that when parents tried to raise children color-blind, children were largely left to form their own ideas about race, and their attitudes were full of bias and prejudice. Bronson says that children develop racial awareness and bias at about the third grade. Bronson says that while the prevailing attitude among whites is to pretend that race does not exist, Barack Obama's election offers an opportunity to talk about it. Even still, he says that whites typically revert to



generalizations about 'everyone being equal' or 'everyone having potential,' while avoiding specific mention of race. But Bronson says that children notice race and color, or any similar distinction, much more than adults. Even in a study where children were randomly given either red or blue t-shirts, and the colors were not mentioned by adults at all, the children ended up grouping together.

Bronson describes the "Diverse Environment Theory" he and Merryman came up with: "If you raise a child with a fair amount of exposure to people of other races and cultures, the environment becomes the message. You don't have to talk about race—in fact, it's better to not talk about race" (p. 55). Bronson says that his own son was raised in a diverse environment, and when Martin Luther King Jr. Day came around, he started to become aware of people's race. But Bronson says that he overheard one student telling another, "Parents don't like us to talk about our skin, so don't let them hear you" (p. 56). Bronson says that his son was really learning to prefer people who looked most like himself.

For all the attention paid to race in schools, Bronson says that it is a highly complicated problem, and mixing students of different races is not a solution, since students can self-segregate easily. Duke University's Dr. James Moody "found that the more diverse the school, the more the kids self-segregate by race and ethnicity within the school" (p. 60).

While children need categories to fit things into at a young age, Bronson says that parents would shush their children when their categories seemed too blunt, or countered cultural narratives about equality. When Dr. Rebecca Bigler gave students a passage that included information about the discrimination Jackie Robinson faced in the segregated leagues, they had much better racial awareness than students who did not hear about his trials in the segregated leagues before he reached the major leagues.

Looking from the opposite side, Bronson says that students who are educated about bias are also less likely to make efforts, and also more likely to blame their failures on bias, instead of lack of effort. Bigler says that learning about racial pride is effective in helping students' confidence, but then, it wouldn't work to teach 'white pride.' Bronson says that belonging to a group is important and helpful, but sometimes it leads to underperformance, as when black students don't want to 'act white' by being ambitious.

Bronson describes Dr. Copenhaver, who read children Christmas books in which Santa Claus is black. Because they believed that Santa was a real person, it forced white children to explain their ideas about race, or accommodate the possibility that Santa might not be white. When she presented the students with a real live black Santa, she brought the issue of race to the foreground, and gave children the language with which to discuss it for themselves.

Analysis

Chapter 2: Bronson's discussion of sleep and its importance follows the pattern he has already set up, of describing the status quo, debunking it, and making a somewhat



urgent plea for a new set of standards for children. He says that the performance detriment of less sleep, and earlier school start times, was bigger than anyone expected it to be. It also turns out that the typical assumptions regarding obesity were backwards, and unrelated to TV watching. These conclusions led Bronson to inquire into the practical difficulties of changing children's sleep patterns, and the realistic consequences of failing to do so.

Chapter 3: Studies of race seem to expose the limitations of science and social science, since the measurements researchers used were clunky constructions like 'whether students have multi-racial friendships.' This is one way to look at the issue, but there is no one lens through which race can be considered, and this seems like a partial solution, which will only return partially useful results. This chapter is not quite as successful as the earlier chapters, because attitudes about race are harder to quantify than performance or hours of sleep. Nevertheless, the status quo idea—that the avoiding mention of race is a good strategy—is thrown out the window, as previous theories have been.



Chapters 4 and 5

Chapters 4 and 5 Summary and Analysis

Chapter 4: Dr. Victoria Talwar has concluded that people cannot generally tell when children are lying. Acknowledging that even parents cannot tell whether children are lying, Talwar says that parents have a hard time believing that their children will lie, since this undermines their ideas of themselves as good parents.

Bronson describes a study in which children are given a chance to peek during a game, and then to see whether they lie, and how far they go with their lie. Bronson says that children learn to lie early: only 30% of third-graders will lie, but over 80% of four-year-olds will lie about whether they peeked during the game.

Bronson says that children learn that some lies are alright, but he says that the correctness of information is important to children, and any factual inaccuracy seems like a lie to a child. Bronson also says that lying is a highly-developed skill, and that if children begin by lying to avoid punishment, they learn to lie for the sake of others' feelings, or to protect secrets.

Bronson says that Talwar studied the effect of different stories or fables on lying, and the story of George Washington and the cherry tree had a huge effect on getting students to be honest, because it rewarded honesty with Washington's father's high regard. According to Bronson, children have the impulse to lie, but then learn that they have to control the impulse, to stay in their parents' good graces, and often times lying is simply more efficacious than telling the truth. If adults acknowledge the temptation to lie, and offer a reward for honesty, as in the George Washington story, the temptation to lie diminishes significantly.

Talwar also says that children learn to lie from adults. She tested children by offering them a bar of soap as a prize, and asking them whether they liked it, and why. They made up white lies, presumably to save face for the researchers. Talwar says that in the case of tattling, children are telling the truth 90% of the time, but parents are ten times more likely to chastise a child for tattling than for telling a lie. Talwar says that children learn to lie in order to navigate parents' habits and behaviors as well, but because tattling is so discouraged, children are forced to lie about the things they see happen.

When Dr. Bella dePaulo asked adults to describe the worst lies they had ever told, many told stories from childhood, and dePaulo found that they were telling these stories because they were formative in learning the use of lies.

Chapter 5: Tackling the question of intelligence assessment in kindergarten students, Bronson describes the assessment tests designed for young students as "astonishingly ineffective" (p. 97). Bronson says that by third-grade, 73 out of 100 kindergarteners will no longer fit the definition of 'gifted.'



Even Pearson, which owns the Wechsler Preschool and Primary Scale of Intelligence (WPPSI), does not track whether the tests are predictive—they only claim that they measure intelligence. "However, earning this classification ['gifted'] when young is nothing less than a golden ticket, academically" (p. 99).

Bronson says that meta-analysis of the studies of intelligence tests showed only a 40% correlation between tests and performance two years later. "Fully one-third of the brightest incoming third graders would have scored 'below average' prior to kindergarten" (p. 101).

Bronson says that schools that do not retest their students are making faulty decisions if they only use one test. When the state of South Carolina evaluated their gifted screening process, they found that many 'gifted' students had only minimal skills, and Bronson says that calling students 'gifted' before the second grade "flies in the face of developmental science" (p. 104). Bronson says that the real problem is in school districts where late-blooming students are not allowed into the gifted programs, because their kindergarten tests were not high enough. Because schools do not retest, the determinations made in kindergarten become fateful.

Bronson says that even emotional intelligence tests are flawed, and offer only a 10% correlation with academic success (although he points out that populations of prisoners typically rate high in emotional intelligence, which he says is not a good sign). Instead of actual intelligence, Bronson says that emotional intelligence tests really only measure verbal ability. Whether scientists are measuring cerebral cortexes or emotional intelligence or academic intelligence, Bronson says that before children are 11 or 12, it is just too early to make meaningful distinctions based on intelligence tests. As they mature, children use their brains very differently, so unless schools are going to test every year, they will not be making predictive determinations by pulling children out for 'gifted' classes.

Analysis

Chapter 4: Bronson is true to his pattern here, of blowing up the received truisms, and then focusing on adult behavior as one of the culprits behind the scenes. As with race, lying is a complicated issue, with no black or white sides, just a lot of gray that has to be navigated on a case-by-case basis. As with race, it seems that with lying, frank conversations with adults who can acknowledge the complexities of issues are more important than firm rules that children have to follow on their own.

Chapter 5: Unlike race attitudes or lying, school admission based on intelligence tests is a definite topic with hard and fast consequences, and Bronson's discussion of the problems with early childhood testing in particular reveals the degree to which testing makes adults feel good about their children and themselves, but it is inaccurate and practically meaningless in terms of predicting talent and performance.



Chapters 6 and 7

Chapters 6 and 7 Summary and Analysis

Chapter 6: Because of the trend in the U.S. and the single child policy in China, Bronson inquires into the effect of being an only child on education and development. Dr. Laurie Kramer, at the University of Illinois, focuses on sibling relations, and she says that sibling relationships, or sibships, as she calls them, are remarkably stable over the long term. She works with families to get siblings to get along better than they do—and to care about each other. Bronson says that in age-segregated schools, siblings are not likely to spend time playing with each other.

Bronson says that Kramer spends time teaching children to avoid conflict, not teaching parents how to resolve conflicts. Bronson says that "Shakespeare was right and Freud was wrong" (p. 127). Freud's emphasis on the siblings' competition for parental affection turns out to have been overblown, but Bronson says that children tend to fight for the reasons Regan and Goneril fought in *King Lear*: they did not know how to share.

Bronson says that Kramer found that this was not included in the literature on parenting, which favored the Freudian theory about parental attention. In the end, the best indicator Kramer has found for how well an older sibling will get along with a younger sibling is the older sibling's relationship with their best friend. She says that "older siblings train on their friends, and then apply what they know to their little brothers and sisters" (p. 129). Bronson concludes that "getting what you need from a parent is easy. It's getting what you want from friends that forces a child to develop skills" (p. 130).

Chapter 7: Bronson describes the story of Jasmine, an 18-year-old girl and a good student whose mother discovered her birth control pills when she was 14, when Jasmine was dating an 18-year-old boy. Jasmine says that she drinks competitively, and has been date-raped when she drank too much. She does not tell her parents about her real activities, and tells them the truth only when she feels like it.

Bronson says that two researchers, Darling and Caldwell, sought to find out how often teens lied to their parents. They started 'leisure studies' which focus on how teens spend unstructured time. After they recruited young researchers, Darling and Caldwell found that 96% of teens lied to their parents, but not so much to stay out of trouble as to protect their relationships with their parents, or to keep their parents from being disappointed in them. When Darling and Caldwell sent questionnaires to parents, they found that permissive parents wanted their kids to feel loved and accepted, so they hadn't set rules for them.

Bronson says that "pushing a teen into rebellion by having too many rules was a sort of statistical myth" (p. 140). What Darling and Caldwell found was that rules are hard to enforce, and easy to avoid, so teens create their own worlds, free from their parents.



"Darling's scholarship shows that the objection to parental authority peaks around 14 to 15. In fact this resistance is slightly stronger at age 11 than at 18" (p. 140).

After finding that kids do in fact turn to sex and alcohol because they are bored, Caldwell asked whether she could teach kids not to be bored. She started TimeWise, a six week course, but while it fired kids up, and kept them focused, the effect didn't last very long.

Bronson says that there is reason to believe that teens are "neurologically prone to boredom" (p. 143). Dr. Adriana Galvan found that "the response pattern of teen brains is essentially the same response curve of a seasoned drug addict" (p. 144). Bronson also says that Dr. Abigail Baird found that teens had to think longer before agreeing that bad ideas like biting down on a light bulb were in fact bad ideas—because they did not have experiences to tell them immediately and viscerally how bad an idea that would be.

Bronson says that "to an adolescent, arguing is the opposite of lying" (p. 147). Bronson says that teens will tell their parents the truth about things they know they will disapprove of because they hope that their parents will accept them. In comparing American with Filipino teens, Darling found that Americans fight as a sign of respect, not disrespect for their parents. Parents typically overestimate the destructiveness of fights, compared with teens, who underrate the destructiveness. The path of harmony for parents and teens seems to lie in the direction of negotiation, where parents and teens both have the ability to determine the value of behaviors, and respect each other enough to accept each other's terms, to a degree.

Bronson says that there has been a split in theories about rebellious teens, and that modern science is only now finding that negotiation, engagement, consistency and compromise are good tactics for bearing the teen rebellion—as opposed to permissiveness or authoritarianism.

Analysis

Chapter 6: Like race and lying, the questions surrounding lies are a bit nebulous and tough to pin down, although Bronson does dispense with a lot of assumptions about only children and children with siblings, and finds that there really are predictors of good relationships between siblings, like the older sibling's relationship with their best friend, and their ability to share in fantasy play.

Chapter 7: By arriving at the conclusion that parents who negotiate with their children do better than parents who merely enforce strict rules, or who allow their kids to do what they like, Bronson is disposing of age-old wisdom that encouraged parents to be firm, or to be permissive. By turning away from the behavior that gives parents good feelings about themselves, and focusing on the behavior the teens choose, Bronson finds the logic of the teen mind—and the science of the hormones and brain chemistry—that shows why a new perspective might help parents.



Chapters 8 and 9

Chapters 8 and 9 Summary and Analysis

Chapter 8: Bronson says that he had always assumed his driver's ed teacher taught him how to drive well, but science and experience show that young drivers need to learn good decision-making skills, and schools that eliminated driver's ed actually reduced accidents. Bronson says that many parents and teachers similarly give Drug Awareness Resistance Education (DARE) high marks, but that it "shows no comparative reduction long-term" (p. 159).

In contrast, Bronson says that Tools of the Mind is a program that puts the teacher in more of a facilitator role. Bronson says that the results are astonishing, not only academically, but in terms of the students' behavior. By working with the students' own interests and imagination, the Tools classes engage them as participants instead of as little vessels that have to be filled against their will. Tools of the Mind has shown self-directed and self-organized results, with students posting test scores far beyond their peers in non-Tools classes.

Dr. Sylvia Bunge studies cognitive control, to determine whether students can be taught to avoid both external distractions and internal distractions like the thought, 'I can't do this.' Brain science shows that cognitive control is not always 'on' but it can be activated. Bronson says that the brain chemistry supports the Tools of the Mind methods, which teach children to jump start their control in order to then follow directions in their work.

Bronson says that Drivers Ed does not work because students are not given real-world experience, and when they have to make real-world decisions, they react slowly because they have to think things through at each step.

Chapter 9: Doctors Jamie Ostrov and Douglas Gentile studied aggression in students, and found that "the more educational media the children watched, the more relationally aggressive [bossy] they were...the more kids watched, the crueller they'd be to their classmates" (p. 180).

Bronson says that children are responsive to their parents' fights, but if they resolve the fights, the effect is not damaging to the children.

In the case of corporal punishment, Bronson says that Dr. Kenneth Dodge found that there was a correlation between being spanked and being aggressive in white children, but there was an inverse proportion in black children: the more they were spanked, the less aggressive they were. This is explained by the fact that in American black culture, spankings were within the realm of 'normal' consequences, whereas for whites, they were not, and so they seemed more traumatic, and the trauma was then inflicted on others in turn.



Bronson says that Dr. Joseph Allen found that letting students resolve their own conflicts can teach them more than pulling them apart and administering justice or punishment. According to Bronson, the zero-tolerance policies for bullying or conflict have had the reverse effect of undermining children's trust in adults, whom the children see as overreacting to every little thing.

Researchers like Dr. Antonius Cillessen have shown that rather than being a breakdown of social structures, aggression can be a defense or assertion of social status. Bronson says that "When parents attempt to teach their seven-year-old daughter that it's wrong to exclude, spread rumors, or hit, they are literally attempting to take away from the child several useful tools of social dominance" (p. 191). Researchers have looked at how children control each other, and the methods with which they balance kindness and aggression, which has forced research to look at more than just aggression, but social context.

Analysis

Chapter 8: The chapter on Tools of the Mind is heartening and upbeat, because of the success of the program, and with the explanation of the brain chemistry that bolsters it. Bronson is in high form here, as he recounts the success stories of the Tools program. The numerous programs that have lost their funding because the students no longer qualified as underperforming, or that stopped pilot programs early, because they were so much better than their control programs, are powerful testaments to this approach.

Chapter 9: Bronson does not bring his chapter on aggression home to the degree he does with other chapters, but the chapter is consistent with the rest of the chapters in addressing a perplexing educational problem through the lens of brain chemistry and social norms—from the perspective of the children themselves. By looking at the uses and benefits of relational or physical aggression from a child's point of view, Bronson unveils a complex world in which zero-tolerance policies are not useful at all. As in previous chapters, close attention, human reactions, and communication about what is expected and what is normal seems to be a better policy than strict adherence to whatever the social or educational fads are.



Chapter 10 and conclusion

Chapter 10 and conclusion Summary and Analysis

Chapter 10: In 2007, a scholarly paper was published that found that 'baby videos' actually reduced infants' vocabularies. Parents believed that the videos were giving them an advantage, and the Baby Einstein company claimed that exposure to numerous languages would help children acquire multiple languages later. But research by Patricia Kuhl at the University of Washington showed that making a commitment to one language early on—not keeping the options open—actually gave children a better foundation for learning other languages. Research showed that children learn language by using it, not by being exposed to it, and studies have also shown that children learn language when speakers interact with them—better than just from hearing a recording.

Bronson says that the received wisdom is that children from verbal homes will develop better language skills. "The basic paradigm, that a child's language output is a direct function of the enormity of input, doesn't explain why two children, both of whom have similar home experiences, can acquire language on vastly divergent timelines" (p. 206). But Bronson says that recent science shows language development correlates not with the amount of language children hear, but with how quickly parents respond to the sounds the children make themselves.

Bronson says that Michael Goldstein at Cornell University was able to show that children whose parents responded to their babblings more quickly developed more language quickly, and developed better language skills. Goldstein says that "the mix of responses a baby gets in a high-quality day care is probably ideal" (p. 215). Goldstein's colleague Dr. Jennifer Schwade found that if parents label the things their children are looking at, the children learn language faster than when the parents hear the sounds the children are making, and supply words that are not the words for the thing the child is looking at.

Bronson describes several trends in language learning—that children learn new words if more than one person says the word, and that shaking an object while naming it is no longer useful for children past 15 months. By varying how adults speak to children, and by repeating patterns that put the important words at the end of sentences, Bronson says that children's language skills develop much more quickly.

Bronson says that Noam Chomsky's theories about an innate language are difficult to believe in, now, considering the new research on language acquisition. According to Bronson, "each step of language acquisition has been partially decoded and, in turn, dramatically demystified" (p. 222).

Conclusion: Bronson says that he and Merryman decided to be careful about describing not prodigies but ordinary children in their acquisition of intellectual capabilities, and he



says that science has shifted to focus more on ordinary, well-adjusted people than on clinical cases and exceptions.

Bronson says that Cicero had called gratitude "the parent of all other virtues" (p. 228) and he says that when students kept 'gratitude journals' they were happier and even healthier.

In 1971, scholars had described human life as a hedonic treadmill, questing after pleasures, but Bronson says that this picture has been chipped away at for some time now. When Dr. James Froh studied the effects of gratitude in students, he found that gratitude journals had no effect on student happiness or performance. In fact, students had 'gratitude fatigue' from being asked to be grateful all the time. When Froh repeated his study across ages, he found that there was still no effect, and he had to abandon the assumption that gratitude was protective—that it warded off problem behavior and troubling moods. For children who were normally happy and grateful, the exercises were stressful, whereas they were uplifting for children who were not normally grateful.

Bronson says that he and Merryman include Froh's story because it illustrates not a great way to make children happy and grateful, but an interesting process of adults changing their lenses to see children's behavior more clearly. Bronson says that when scholars dropped the same two assumptions Froh had had to drop—that students are like mini adults, and that positive traits erase the effects of negative effects—they started to see children on their own terms, and also to identify the parental behavior that was driving the sometimes thoughtless or unwarranted policies in schools.

Analysis

Chapter 10: Bronson's chapter on language reveals the extent to which old science has given way to new, especially considering Noam Chomsky's famous belief that language was hard-wired in human brains. The research Bronson quotes is telling and it provides the reader/parent/teacher with powerful tools for teaching infants and children language. Interestingly, the trend is consistent with other complex issues in *NurtureShock*: the more an adult can pay attention to the child's focus, and see the world from the child's perspective—instead of simply imposing their ideas and reactions on the child—the better children will do in acquiring intellectual and language abilities.

Conclusion: Shifting to the study of and language for describing happiness might have made the conclusion a bit slipperier than the other chapters, since happiness is a famously elusive term to pin down. But Bronson does not end up making claims about happiness—rather he turns this final topic into a meta-analysis of the studies conducted throughout the book. He finds that there is an underlying current, of finding that outcomes improve when adults treat children like children, and do things that are appropriate for the developmental stages—and also when adults stop trying to isolate traits like honesty and non-violence and happiness. Children, it turns out, are much like adults in their perceptions of the complexity of life—and parents are more effective in teaching when they can be trustworthy models, instead of authority figures, prompting the students to follow scripts.



Characters

Po Bronson

Po Bronson is the author, with Ashley Merryman, of *Nurtureshock*. He is a writer and researcher who has written for *New York* and *Time* magazines.

Ashley Merryman

Ashley Merryman is a co-author of *Nurtureshock*, with Po Bronson.

Cary Grant

Cary Grant is a famous film star who used to work as a Cary Grant look-alike, greeting patrons at the Magic Castle night club in Hollywood.

Thomas

Thomas is a smart fifth-grader at the Anderson school. Bronson says that Thomas has been told that he is smart, but as a result, he lacks courage to tackle work that will not confirm that impression.

Dr. Carol Dweck

Dr. Dweck is a Stanford professor who has researched the effects of praise for children's intelligence on their confidence. Her research found that 'smart' children would choose easier tasks than 'hard-working' students. She also found that 'smart' students were affected much more by adversity, whereas 'hard-working' students could rise to the challenge of harder work.

Morgan Fichter

Morgan Fichter is a student who found that she had trouble sleeping after a class with a 'hypercritical' teacher. Her lack of sleep affected her grade.

Dr. Avi Sadeh

Dr. Sadeh is a researcher at Tel Aviv University who tested children's performance based on their sleep patterns. He found that the performance gap was considerable, like the difference between two grade-years.



Dr. Mary Carskaden

Dr. Carskaden has researched the sleep schedule shift that takes place during adolescence, which pushes their bedtimes back naturally. This research has led to movements to move high school start times back to allow students to sleep better.

Birgitte Vittrup

Birgitte Vittrup researched the effects of multicultural teaching aids on racial attitudes, and concluded that when parents tried to raise children color-blind, children were largely left to form their own ideas about race, and their attitudes were full of bias and prejudice.

Dr. Rebecca Bigler

Dr. Bigler's research into race attitudes has tried to articulate the complexities surrounding children's attitudes about in-group and out-group distinctions, and their mental processes surrounding categorization.

Dr. Jeane Copenhaver-Johnson

Dr. Copenhaver conducted research in which she read children Christmas books in which Santa is black. This caused white children to have to explain their ideas about race, or accommodate the possibility that Santa might not be white. When she presented the students with a real live black Santa, she brought the issue of race to the foreground, and gave children the language with which to discuss it for themselves.

Dr. Victoria Talwar

Dr. Victoria Talwar studies lying in children, and she has concluded that people cannot generally tell when children are lying. Acknowledging that even parents cannot tell whether children are lying, Talwar says that lying is a complex issue, and that when parents punish children for tattling more than for lying, children are put in positions where they are forced to lie.

Dr. Laurie Kramer

Dr. Laurie Kramer, at the University of Illinois, focuses on sibling relations, and she says that sibling relationships, or sibships, as she calls them, are remarkably stable over the long term. She works with families to get siblings to get along better than they do—and to care about each other.



Nancy Darling and Linda Caldwell

Darling and Caldwell are researchers at Penn State who looked into high school students' unstructured time, and their study got students to see how much they were lying to their parents about all kinds of things, from homework to drinking, drugs and sex.

Doctors Jamie Ostrov and Douglas Gentile

Doctors Jamie Ostrov and Douglas Gentile studied aggression in students, and found that "the more educational media the children watched, the more relationally aggressive [bossy] they were...the more kids watched, the crueller they'd be to their classmates." (p. 180).

Dr. Catherine Tamis-LeMonda

Dr. Catherine Tamis-LeMonda is a researcher at New York University who studies the development of language in infants. She showed that parental attentiveness to children's sounds was more important in eliciting speech than simply barraging children with large amounts of language.

Noam Chomsky

Noam Chomsky was a linguist at Massachusetts Institute of Technology in the 1950s and 60s who theorized an innate language in humans.



Objects/Places

The Magic Castle night club

The Magic Castle is a night club that promises celebrities a night without attention or newspaper photographers. Cary Grant used to work at the Magic Castle, posing as a Cary Grant look-alike.

Wechsler Preschool and Primary Scale of Intelligence (WPPSI)

The WPPSI is a series of tests and exercises for assessing the intelligence of students for the purpose of school admission.

Intelligence Quotient (IQ)

IQ is a measurement of a person's intelligence as compared to other people at that person's age. An IQ of 100 means that the person is normal. An IQ higher than 100 means that they are more advanced.

Emotional intelligence

Emotional intelligence is an idea, promoted by Dr. Daniel Goleman, that intellectual measurements might miss the important parts of a person's intelligence, and that the ability to discern and respond to people's emotions might be a useful predictor of students' talents and future successes.

Sibship

Sibship is the relationship between siblings, as opposed to friendship.

TimeWise

TimeWise is a program developed by Linda Caldwell to teach teens to manage their time better, in order to keep them away from drugs, sex and alcohol.

Drug Awareness Resistance Education (DARE)

DARE is a program designed to keep kids off drugs, but Bronson says that it "shows no comparative reduction long-term" (p. 159).

Tools of the Mind

Tools of the Mind is a program developed by Doctors Elena Bodrova and Deborah Leong in Denver. The program uses children's own imagination and desire for structure to give them the tools to entertain their own internal dialogue, and to evaluate their own work and behavior.

Baby Einstein

Baby Einstein is a curriculum of videos designed to give children language skills in infancy by surrounding them with spoken language. Researchers found that in spite of the company's claims, the videos actually diminished the children's vocabularies.



Themes

Experts know better than conventional wisdom

Bronson shows again and again that experts who pay close attention to children's behavior can tell more than parental intuition or social aspirations about what children's behavior means. *Nurtureshock* began with Bronson's surprise that science had changed so much in recent years, and that so many commonplace ideas were actually founded on faulty science or the lack of logic. When trying to curb behavior like aggression (with restraint) or poor self-esteem (with praise) or racial inequality (with color-blindness), parents undermine their actual authority by resorting to received rules instead of paying attention to the current science, some of which is somewhat commonsensical (like not spoiling a child with praise).

Bronson offers a number of cases in which following the results of brain science and strict psychological testing have outstanding effects on either test scores, student happiness, classroom behavior, or even rates of car accidents. By offering these outcomes, *Nurtureshock* is effectively propaganda for social science and close attention to the working mechanisms of children's hormonal and neurobiological systems.

Children benefit from complexity

Starting with the Tools of the Mind program, but in many examples throughout the book, Bronson shows that by stripping children of responsibility for making decisions and by preventing them from following through on their activities, parents are leaving children with aggression and withdrawal as their only options. In terms of racial attitudes, aggression and lying, the parental attempt to impose a simplistic, black and white schema on children's behavior actually backfires.

Bronson says that this often starts a negative feedback cycle, where students don't trust parents and teachers, and a gap grows between them. In *Tools of the Mind*, though, Bronson says that the children are given responsibility for their own work, they make a plan for their day, and this gives structure to their play. Similarly, Bronson says that when parents can demonstrate how they resolve their own arguments, they are effectively teaching children how aggression can be resolved. When parents simply forbid aggression, children do not trust them, because they are taking away a valuable technique for surviving in school.

Getting parents' feelings out of the way of children's educa

One of the themes Bronson comes back to from time to time, typically at the end of the chapters, is the notion that the old-school, traditional, or progressive parenting



techniques or educational theories are actually designed to give parents a good feeling about themselves, but not to actually help the children. As in cases of praising children too much, which backfires with anxiety about their talents, and lack of effort to try new things, the parental desire to have a smart kid can get in the way of giving the child tools with which to become smart.

Bronson does not highlight this theme as much as he might, but behind some of these problems, you can see the tumultuous changes of the twentieth century, from the civil rights movement to the women's movement to the industrialization of the workplace and competition for places in school. In almost every case, Bronson says that the best way to teach children is to allow complexity into their experiences, and to give them responsibility for participating in their own educational experiences.

Engineering children's behavior is complicated

In the conclusion, in particular—but also in chapters about race and lying—Bronson shows that adults' desire to engineer the behavior children show them is a highly charged business—but also fraught with complexities and even dangers. While parents can in fact elicit the behaviors they would like to see—like obedience to their rules—Bronson says that unless they are flexible and attentive to their children's actual realities, they run the risk of being lied to as the children try to protect their relationship with their parents from the realities of their lives, and save themselves from parental disappointment.

In the chapter on race in particular, Bronson shows that the refusal to address race leads to worse racial attitudes in the children, and while the parents might want to create a color-blind society, their refusal to address race backfires on them, as children develop their own biased ideas.

Style

Perspective

Nurtureshock is a non-fiction book, so it does not have a narrator, but the authorial tone is accessible and non-specialized. Bronson is an experienced writer for magazines, so his writing focuses effectively on the issues and keeps him behind the scenes, as he follows the questions from one study or expert to another. He does include several references to his own children, and his experience as a parent, but he does not reveal very much about his actual family, beyond merely illustrating the experts' ideas in their behavior, or in his own parenting style.

Tone

Bronson uses fairly sophisticated vocabulary and grammar, but his book should be accessible to anyone with a college education. While he uses the first person to describe how ideas seemed appealing or controversial, he does not include very many details about his own life, so the stories remain fairly general, as you would expect from a magazine article or non-fiction book like this.

Structure

Nurtureshock is structured like most non-fiction books. With an introduction and first chapter, Bronson lays out the ideas he expects to work with, using anecdotes and a little explication. Then, in subsequent chapters, he focuses on one problem after another, and he follows a general pattern as he elaborates on each topic: he introduces the old science, the new science, and then shows why the new science is more effective. In some cases, he concludes a chapter by describing how the new idea has affected his own parenting.

Quotes

"What we imagined were our 'instincts' were instead just intelligent, informed reactions. Things we had figured out. Along the way, we also discovered that those reactions were polluted by a hodgepodge of wishful thinking, moralistic biases, contagious fads, personal history, and old (disproven) psychology—all at the expense of common sense." (p. 6)

"'Nurture shock' refers to the panic that the mythical fountain of knowledge is not magically kicking in at all." (p. 6)

"The central premise of this book is that many of modern society's strategies for nurturing children are in fact backfiring—because key twists in the science have been overlooked." (p. 6)

"Emphasizing effort gives children a variable they can control...emphasizing natural intelligence takes it out of the children's control, and it provides no good recipe for responding to a failure." (p. 15)

"Only children under the age of seven take praise at face value. Older children are just as suspicious of it as adults." (p. 20)

"Memories that are emotionally laden get processed during REM sleep. The more you learn during the day, the more you need to sleep that night." (p. 34)

Bronson's Diverse Environment Theory: "If you raise a child with a fair amount of exposure to people of other races and cultures, the environment becomes the message. You don't have to talk about race—in fact, it's better to not talk about race." (p. 55)

"People simply cannot tell when children are lying. Their scores also tend to reveal some biases. They believe girls are telling the truth more than boys, when in fact boys do not lie more often. They believe that younger kids are more prone to lying, whereas the opposite is true. And they believe introverts are less trustworthy." (p. 75)

"The better a young child can distinguish a lie from the truth, the more likely she is to lie given the chance." (p. 80)

"Children don't start out thinking lies are okay, and gradually realize they're bad. The opposite is true. They start out thinking all deception is bad, and slowly realize that some types are okay." (p. 81)

"The irony of lying is that it's both normal and abnormal behavior at the same time. It's to be expected and yet it can't be disregarded." (p. 90)

"Older siblings train on their friends, and then apply what they know to their little brothers and sisters." (p. 129)



"Pushing a teen into rebellion by having too many rules was a sort of statistical myth."
(p. 140)

"To an adolescent, arguing is the opposite of lying." (p. 147)

"In one study, Dr. Mark Cummings found that the children's emotional well-being and security are more affected by the relationship between the parents than by the direct relationship between the parent and child." (p. 184).

"The basic paradigm, that a child's language output is a direct function of the enormity of input, doesn't explain why two children, both of whom have similar home experiences, can acquire language on vastly divergent timelines." (p. 206)

Topics for Discussion

According to Bronson and Merryman's account of current educational policies and values, what is the purpose of education, and what kind of student does the educational and parental system produce? Using examples from the text, describe the current ideal against which Bronson and Merryman are building a case.

According to Bronson and Merryman's description of new science and techniques, what do you think Bronson and Merryman would say the purpose of education is? What kind of student would they like to produce? Using examples from the text, describe the new individual for which Bronson and Merryman are trying to build a case.

What concerns would you have to resolve in order to implement a study that would evaluate the effectiveness of the parenting and teaching techniques Bronson and Merryman espouse in their book? What would be the advantages and disadvantages of such a study, and how would you go about it?

How does this book make you think and feel about your own childhood? How would your childhood have been different if parents and teachers had followed more of these precepts? How do you reconcile yourself to the fact that your childhood might have been based on outdated ideas? Does it make a difference, ultimately? Why or why not?

Evaluate the proposition that parents should be required to take classes in parenting from Bronson and Merryman. What would the advantages and disadvantages of such classes be? In what cases would they be beneficial? Where might they not be?

Describe a field of children's or students' behavior that you think might not be sufficiently well understood. What do you think parents and teachers are failing to understand? What trends or behaviors are adults missing? What remedy would you recommend?