## The Talking Cure



Kids in Providence's program wear a device that records adult words, child vocalizations, and conversational turns. Credit Illustration by Leo Espinosa

One morning in September, Lissette Castrillón, a caseworker in Providence, Rhode Island, drove to an apartment on the western edge of town to visit Annie Rodriguez, a young mother, and her two-year-old daughter, Eilen. Castrillón and Rodriguez sat down on a worn rug and spoke about the importance of talking to very young children. They discussed ways to cajole a toddler into an extended conversation, and identified moments in the day when Rodriguez could be chatting more with Eilen, an ebullient little girl who was wearing polka-dot leggings.

"Whenever she's saying a few new words, it's important to tell her yes, and add to it," Castrillón told Rodriguez. "So if she sees a car you can say, 'Yes, that's a car. It's a big car. It's a blue car.'

Eilen suddenly said, "Boo ca!"

Castrillón looked at her and said, "Right! Blue car! Good job!"

Rodriguez noted that Eilen had recently become so enthralled by an animated show, "Bubble Guppies," that she had become "stuck on that word 'guppy.' "She went on, "Everything's 'guppy, guppy, guppy.' So when she refers to something as 'guppy' I try to correct it—like, 'No, that's not a guppy. That's a doll.' "

"Guppy?" Eilen said, hopefully.

Castrillón said, "Well, I think right now the important thing won't be so much telling her no but just adding words and repeating them, so she'll start repeating them on her own."

Rodriguez is enrolled in a program called Providence Talks, the most ingenious of several new programs across the country that encourage low-income parents to talk more frequently with their kids. Once a month, Eilen wears a small recording device for the day, and the recording is then analyzed. An algorithm tallies all the words spoken by adults in her vicinity, all the vocalizations Eilen makes, and all the "conversational turns"—exchanges in which Eilen says something and an adult replies, or vice versa. The caseworker who visits Rodriguez's home gives her a progress report, which shows in graph form how many words Eilen has been hearing, and how they peak and dip throughout the day.

Castrillón presented Rodriguez with the month's report. She leaned over her shoulder and said, "See, this shows the percentage of adult words. There were over

fifteen thousand words spoken in that day."

"Wow!" Rodriguez said.

Castrillón noted that significantly more conversation took place when the TV was off, and that it had been off more that month than the previous one. "There was pretty high electronic sound last time," she said. "This time, there was very little." Rodriguez nodded, studying the printout.

In the nineteen-eighties, two child psychologists at the University of Kansas, Betty Hart and Todd Risley, began comparing, in detail, how parents of different social classes talked with their children. Hart and Risley had both worked in preschool programs designed to boost the language skills of low-income kids, but they had been dissatisfied with the results of such efforts: the achievement gap between rich and poor had continued to widen. They decided to look beyond the classroom and examine what went on inside the home. Hart and Risley recruited forty-two families: thirteen upper, or "professional," class, ten middle class, thirteen working class, and six on welfare. Each family had a baby who was between seven and twelve months old. During the next two and a half years, observers visited each home for an hour every month, and taped the encounters. They were like dinner guests who never said much but kept coming back.

In all, Hart and Risley reported, they analyzed "more than 1,300 hours of casual interactions between parents and their language-learning children." The researchers noticed many similarities among the families: "They all disciplined their children and taught them good manners and how to dress and toilet themselves." They all showed their children affection and said things like "Don't jump on the couch" and "Use your spoon" and "Do you have to go potty?" But the researchers also found that the wealthier parents consistently talked more with their kids. Among the professional families, the average number of words that

children heard in an hour was twenty-one hundred and fifty; among the workingclass families, it was twelve hundred and fifty; among the welfare families, it was six hundred and twenty. Over time, these daily differences had major consequences, Hart and Risley concluded: "With few exceptions, the more parents talked to their children, the faster the children's vocabularies were growing and the higher the children's I.Q. test scores at age 3 and later."

Hart and Risley's research has grown in prominence, in part because large-scale educational reforms like No Child Left Behind have proved disappointing.

Addressing the word gap by coaching new parents sounds like a simpler intervention. Last year, Hillary Clinton announced a new initiative, Too Small to Fail, that emphasizes the importance of talking to infants and young children; in the fall, President Barack Obama convened a White House conference whose goal was to "bridge the word gap and put more young people on the path to success." Other cities, including Cambridge, Massachusetts, have initiated programs similar to the one in Providence, and still others have begun public-awareness campaigns with radio spots and bus-shelter signs reminding parents to talk frequently to their kids. The notion of the word gap even turned up on "Orange Is the New Black," when one of the inmates urged her boyfriend to talk with their new daughter, because "there's all these studies that say that if you don't talk to the baby they end up, like, fucked by the time they're five."

The way you converse with your child is one of the most intimate aspects of parenting, shaped both by your personality and by cultural habits so deep that they can feel automatic. Changing how low-income parents interact with their children is a delicate matter, and not especially easy. Lissette Castrillón was sensitive to the challenge, and she had an appealing informality: she listened carefully to Rodriguez, praised her efforts, and said admiring things about Eilen, all while sitting cross-legged on the floor. But, perhaps inevitably, there was an awkward moment.

Castrillón had brought an iPad with her, and she played for Rodriguez a video of a mother shopping at the grocery store while her toddler sat in the cart—just to show, Castrillón explained, that you could "talk aloud when you're pretty much doing anything." The mother onscreen was blond and fit, and wore white jeans; she looked like a character in a Nancy Meyers movie, and her patter was so constant that it became wearying. "Here's our crunchy peanut butter, sweetheart!" she trilled, scanning an aisle filled with organic food. "Here's the Wild Oats one. Roasted almond butter. Crunchy. Let's get crunchy, Bubba." The cart was piled high, and the items looked expensive. "Bubba, we're running out of room. What are we going to do? Did Mommy buy too many groceries today? I think we should get the creamy, too, because Murphy does *not* like when I get that crunchy. And we like to have the peanut butter because peanut butter's good for *you*. It's got protein."

Rodriguez watched the video with a serious expression. It was hard to imagine her holding forth with such preening gusto in the organics aisle. Castrillón said, "Well, you know, just—whatever the food is you're buying, you can talk about color, shape, and texture."



"No need to come to order. The Honorable Justice Perkins is just tenderizing his porterhouse." Buy the print

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In 2012, the mayor of Providence, Angel Taveras, heard about the Mayors Challenge, a new competition being offered to cities that proposed a bold idea for making urban life better. The prize was to be given by Bloomberg Philanthropies, the foundation started by Michael Bloomberg, the former New York mayor, on the premise that cities are "the new laboratories of democracy." The city that won the grand prize would receive five million dollars to realize its project, and four other cities would be given a million each. As Taveras recalled, "They announced that challenge on Twitter, and right away I said, 'We're going to go for it.' And I didn't know exactly what it would be at the time, but I knew it was going to be on early-childhood education."

Taveras's focus was not unusual: these days, everyone from preschool teachers to politicians talks about infant brain development, and toy companies tap into parental anxiety about it. But Taveras had a personal investment in the subject. He is the son of immigrants from the Dominican Republic, neither of whom went beyond the eighth grade. He grew up in Providence, and his mother, Amparo, who raised him largely on her own, worked factory jobs to support him and his two siblings. When he was four, Amparo enrolled him in a local Head Start program, and he felt that it had made a decisive difference in his life. He went on to Providence public schools, and then attended Harvard University and Georgetown law school. Taveras calls himself the "Head Start to Harvard" mayor, and he still has his graduation picture from the program. "I wore a cap and gown, and it was so special for me," he recalled.

In 2010, at the age of forty, Taveras became the first Latino mayor of Providence, a city that is nineteen per cent Latino, mostly Dominican. Tall and skinny, with rimless eyeglasses, Taveras is nerdier and nicer than you might expect of a Providence mayor. One of his predecessors, Buddy Cianci, was twice convicted of

felonies while in office: once for racketeering, and once for assaulting a man—using a lit cigarette and a fireplace log—who was dating his ex-wife. Taveras, by contrast, wrote a children's book called "How to Do Well in School" and seems genuinely to enjoy mayoral duties like dropping in for "story time" at a local library.

One day, while Taveras was mulling over what to propose for the Bloomberg competition, his policy director, Toby Shepherd, told him about Hart and Risley's research—including their calculation that a poor four-year-old has heard thirty million fewer words from his parents than a wealthy one has.

That number had attracted a lot of attention in the press—to the point that Hart and Risley's study was sometimes faulted for an overemphasis on the sheer quantity of words. But Taveras learned that Hart, who died in 2012, and Risley, who died in 2007, had also identified important differences in kinds of talk. In the recordings of the professional families, they found a "greater richness of nouns, modifiers, and past-tense verbs," and more conversations on subjects that children had initiated. Catherine Snow, a professor at Harvard's Graduate School of Education, who studies children's language development, told me that these findings made sense, since quantity was often a proxy for quality. "Families that talk a lot also talk about more different things," Snow said. "They use more grammatical variety in their sentences and more sophisticated vocabulary, and produce more utterances in connected chains." Such parents, she noted, "don't just say, 'That's a teapot.' They say, 'Oh, look, a teapot! Let's have a tea party! There's Raggedy Ann—do you think she wants to come to our tea party? Does she like sugar in her tea?' " Parents who talk a lot with their young children ask them many questions, including ones to which they know the answer. ("Is that a ducky on your shirt?") They reply to those devilish "Why?" questions toddlers love with elaborate explanations. Erika Hoff, a developmental psychologist at Florida Atlantic University, has published studies about early language development whose results are similar to those of Hart and Risley. She recalled marvelling at "the young professor mothers" at a university

childcare center: "*Everything* was a topic of conversation. If they had to get out of the building in case of a fire, they'd be so busy discussing the pros and cons with their toddlers that I kind of wondered if they'd make it."

Among the more affluent families studied by Hart and Risley, a higher proportion of the talk directed at children was affirming, which was defined to include not just compliments like "Good job!" but also responses in which parents repeat and build on a child's comments: "Yes, it is a bunny! It's a bunny eating a carrot!" In those families, the average child heard thirty-two affirmations and five prohibitions ("Stop that"; "That's the wrong way!") per hour—a ratio of six to one. For the kids in the working-class families, the ratio was twelve affirmatives to seven prohibitions, and in the welfare families it was five affirmatives to eleven prohibitions. Hart and Risley included one extended description of a mother from the poorest group, at home with her twenty-three-month-old daughter, Inge:

The mother returns; Inge sits on the couch beside her to watch TV and says something incomprehensible. Mother responds, "Quit copying off of me. You a copycat." Inge says something incomprehensible, and her mother does not respond. Inge picks up her sister's purse from the couch. Her mother initiates, "You better get out of her purse." Inge continues to explore the purse and her mother initiates, "Get out of her purse." Inge does not answer; she begins to take coins out of the purse and put them on the coffee table. Her mother initiates, "Give me that purse." Inge continues to put coins on the table. Her mother initiates, "And the money." Inge does not answer but gives her mother the purse.

Hart and Risley noted that the mother was "concerned" and "affectionate" toward her child. Inge was dressed in nice clothes and fed consistently, and she was toilet trained; at one point, the mother picked her up and kissed her. But she made "few efforts to engage the child in conversation," and did not "re-direct" Inge when she

wanted her to stop doing something, or treat exploratory misbehavior as a sign of curiosity rather than defiance. Most of what the mother said to Inge was "corrective or critical."

Hart and Risley also provided examples of various kinds of conversation—mostly, but not exclusively, among the professional families—in which parents prompted and encouraged children to talk:

The mother initiates, asking Calvin (24 months), "What did we do on Halloween? What did you put on your head and on your body? What did you look like?" When Calvin does not answer, she tells him, "You were a kitty cat." Calvin says, "Wanna get. Where go?" His mother says, "What are you looking for? I know what you're looking for. What used to be on the door handle?" Calvin says, "Where?" His mother says, "The trick-or-treat bag. We ate up all the candy already." Calvin says, "Where the candy go?" His mother says, "It's all gone in your tummy." Calvin says, "Want some."



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Mayor Taveras thought that such conversational strategies could be taught to new parents, and decided to address the word-gap problem with the Mayors Challenge. "Head Start is awesome," he told me. "But we've gotta do something even *before* Head Start." At the time, his wife was pregnant with their first child, and he "was reading and talking to my daughter in utero. I decided it can't hurt. I'd come home

and say, 'It's Daddy,' and 'How are you?,' and everything else."

Even though the Hart and Risley study had encompassed just a few dozen families, the transcribing and coding of all those tapes had been laborious. New technology, Shepherd told him, could make counting words much easier. In 2005, a research foundation named LENA (for Language Environment Analysis) had developed a small digital device that could record for sixteen hours and recognize adult words, child vocalizations, and conversational turns. Such distinctions were important, because researchers had determined that merely overheard speech—a mother holding a child on her lap but talking on the phone, for instance—contributed less to language development. The LENA recorder could also distinguish between actual people speaking in a child's earshot and sounds from TVs and other electronic devices; children under the age of two appear to learn language only from other humans. The device was about the size of an iPod, and it fit into the pocket of a specially designed vest or pair of overalls. (Children soon forgot about the devices, though they occasionally ended up in the toilet or in the dog's bed.)

LENA's device had been used in academic research on language development and in interventions for hard-of-hearing, autistic, and developmentally delayed children. In 2009, a Chicago surgeon named Dana Suskind, who specializes in cochlear-implant surgery for deaf children, began using LENA's technology in a program called the Thirty Million Words Initiative, which includes a study on the effects of encouraging low-income parents to talk more with their children. Suskind had come across Hart and Risley's research after noticing divergent outcomes for her young patients. "Cochlear implants are truly a modern medical miracle," she said. "But, after the implantation surgery, some of the kids we saw were reading and speaking on grade level, and others were much slower to communicate. The difference almost always had to do with socioeconomic status."

Taveras named his proposed project Providence Talks, and decided that technology

would be supported with counselling. During home visits with low-income parents, caseworkers would discuss the science of early brain development. They'd advise parents to try to understand better what their kids were feeling, instead of simply saying no. Parents would be told that, even when they were bathing a child or cooking dinner, they could be narrating what was going on, as well as singing, counting, and asking questions. The caseworkers would bring books and demonstrate how to read them: asking children questions about what was going to happen next and livening up the dialogue with funny, high-pitched voices and enthusiastic mooing and woofing.

For the mayor, it was important that Providence Talks did not seem exclusive. "I love it that you can do this in Spanish or any other language," he said. "I love it that you can do it even if you're not literate. Even if you can't read them a book. You can still talk to them about what an apple is: 'This is a red apple, this is a green apple, this is how you cut it.' Just talking and engaging and having a conversation."

In March of 2013, Taveras learned that Providence Talks had won the Mayors Challenge grand prize. The Bloomberg committee praised the city for its "direct, simple, and revolutionary approach." Taveras wanted to jump up and down and scream, but, fearing that this wasn't mayoral, he contented himself with fist-bumping Toby Shepherd and the rest of his staff.

A big part of the program's appeal lay in its technology. Using LENA devices, caseworkers could show parents how much they'd been talking at various times of the day. Crucially, parents found the gadgets fun: they were like Fitbits for conversation. Andrea Riquetti, the director of Providence Talks, told me, "The fact that we have this report, in a graph form, makes it nonjudgmental." Parents were likely to resist, she felt, if the program seemed scolding. "We can say, look, here's the data. Look how much you were talking at eleven o'clock! How can we do this for another half hour? As opposed to a home visitor telling a parent, 'You're not talking

to your child enough."

Providence Talks had its critics, some of whom thought that the program seemed too intrusive. The A.C.L.U. raised questions about what would happen to the recordings, and one of the organization's Rhode Island associates, Hillary Davis, told *National Journal*, "There's always a concern when we walk in with technology into lower-income families, immigrant populations, minority populations, and we say, 'This will help you.' "She continued, "We don't necessarily recognize the threat to their own safety or liberty that can accidentally come along with that."

Others charged that Providence Talks was imposing middle-class cultural values on poorer parents who had their own valid approaches to raising children, and argued that the program risked faulting parents for their children's academic shortcomings while letting schools off the hook. Nobody contested the fact that, on average, low-income children entered kindergarten with fewer scholastic skills than kids who were better off, but there were many reasons for the disparity, ranging from poor nutrition to chaotic living conditions to the absence of a preschool education. In a caustic essay titled "Selling the Language Gap," which was published in *Anthropology News*, Susan Blum, of Notre Dame, and Kathleen Riley, of Fordham, called Providence Talks an example of "silver-bullet thinking," the latest in a long history of "blame-the-victim approaches to language and poverty."

To some scholars, the program's emphasis on boosting numbers made it seem as though the quality of conversation didn't matter much. As James Morgan, a developmental psycholinguist at Brown University, put it, obsessive word counting might lead parents to conclude that "saying 'doggy, doggy, doggy, doggy, doggy' is more meaningful than saying 'doggy.' "Kathy Hirsh-Pasek, a psychologist at Temple University, told me that Hart and Risley had "done a very important piece of work that pointed to a central problem"; nevertheless, their findings had often been interpreted glibly, as if the solution were to let words "just wash over a child, like

the background noise of a TV." Her own research, including a recent paper written with Lauren Adamson and other psychologists, points to the importance of interactions between parents and children in which they are both paying attention to the same thing—a cement mixer on the street, a picture in a book—and in which the ensuing conversation (some of which might be conducted in gestures) is fluid and happens over days, even weeks. "It's not just serve and return," Hirsh-Pasek said. "It's serve and return—and return and return."

The original Hart and Risley research, whose data set had only six families in the poorest category, was also called into question. Mark Liberman, a linguist at the University of Pennsylvania, said, "Do low-income people talk with their kids less? Well, that's a question about *millions* of people. Think of people in the survey business, trying to predict elections or develop a marketing campaign. They would find it laughable to draw conclusions without a large randomized sample." Encouraging adults to talk more to children was all to the good, Liberman said, but it was important to remember that "there are some wealthy people who don't talk to their children much and some poor people who talk a lot."

Indeed, recent research that supports Hart and Risley's work has found a great deal of variability *within* classes. In 2006, researchers at the LENA Foundation recorded the conversations of three hundred and twenty-nine families, who were divided into groups by the mothers' education level, a reasonable proxy for social class. Like Hart and Risley, the LENA researchers determined that, on average, parents who had earned at least a B.A. spoke more around their children than other parents: 14,926 words per day versus 12,024. (They attributed Hart and Risley's bigger gap to the fact that they had recorded families only during the late afternoon and the evening—when families talk most—and extrapolated.) But the LENA team also found that some of the less educated parents spoke a lot more than some of the highly educated parents.



"He's all business during the week, but on weekends he displays a playful humor. "Buy the print »

Anne Fernald, a psychologist at Stanford, has published several papers examining the influence of socioeconomic status on children's language development. In one recent study, Fernald, with a colleague, Adriana Weisleder, and others, identified "large disparities" among socioeconomic groups in "infants' language processing, speech production, and vocabulary." But they also found big differences among working-class families, both in terms of "the children's language proficiency and the parents' verbal engagement with the child." Fernald, who sits on the scientific advisory board for Providence Talks, told me, "Some of the wealthiest families in our research had low word counts, possibly because they were on their gadgets all day. So you can see an intermingling at the extremes of rich and poor. Socioeconomic status is *not* destiny."

In response to the privacy concerns, Mayor Taveras and his team volunteered their own households to be the first ones recorded. They also guaranteed that the LENA Foundation's software would erase the recordings after the algorithm analyzed the data. Though this probably reassured some families, it also disappointed some scholars. "That's a huge amount of data being thrown out!" James Morgan, of Brown, told me. "There were real concerns whether families would participate otherwise. But as a scientist it breaks my heart."

To those who argued that Providence Talks embodied cultural imperialism, staff members responded that, on the contrary, they were "empowering" parents with knowledge. Andrea Riquetti, the Providence Talks director, told me, "It really is our responsibility to let families know what it takes to succeed in the culture they live in. Which may not necessarily be the same as the culture they have. But it's their choice whether they decide to. It's not a case of our saying, 'You have to do this.' "Riquetti grew up in Quito, Ecuador, came to America at the age of seventeen, and worked for many years as a kindergarten teacher in Providence schools. In Latino culture, she said, "the school is seen as being in charge of teaching children their letters and all that, while parents are in charge of discipline—making sure they listen and they're good and they sit still. Parents don't tend, overall, to give children a lot of choices and options. It's kind of like 'I rule the roost so that you can behave and learn at school.' "The Providence Talks approach "is a little more like 'No, your child and what they have to say is really important.' And having them feel really good about themselves as opposed to passive about their learning is important, because that's what's going to help them succeed in this culture."

Riquetti and the Providence Talks team didn't seem troubled by the concerns that Hart and Risley's data set wasn't robust enough. Although no subsequent study has found a word gap as large as thirty million, several of them have found that children in low-income households have smaller vocabularies than kids in higher-income ones. This deficit correlates with the quantity *and* the quality of talk elicited by the adults at home, and becomes evident quite early—in one study, when some kids were eighteen months old. Lack of conversation wasn't the only reason that low-income kids started out behind in school, but it was certainly a problem.

The biggest question was whether Providence Talks could really change something as personal, casual, and fundamental as how people talk to their babies. Erika Hoff, of Florida Atlantic University, told me, "In some ways, parenting behavior clearly can change. I have a daughter who has a baby now and she does everything

differently from how I did it—putting babies to sleep on their backs, not giving them milk till they're a year old. But patterns of *interacting* are different. You're trying to get people to change something that seems natural to them and comes from a fairly deep place. I don't know how malleable that is."

After decades of failed educational reforms, few policymakers are naïve enough to believe that a single social intervention could fully transform disadvantaged children's lives. The growing economic inequality in America is too entrenched, too structural. But that's hardly an argument for doing nothing. Although improvements in test scores associated with preschool programs fade as students proceed through elementary school, broader benefits can be seen many years later. A few oft-cited studies have shown that low-income kids who attended high-quality preschool programs were more likely to graduate from high school and less likely to become pregnant as teen-agers or to be incarcerated; they also earned more money, on average, than peers who were not in such programs. Such data suggest that a full assessment of Providence Talks will take decades to complete.

On a cool, rainy morning in April, I went on a home visit with a young caseworker named Stephanie Taveras (no relation to the mayor), who had been assigned to Providence Talks. Two months earlier, the program had begun with fifty-eight families; the plan was to start adding many more families in the fall, with a projected, if optimistic, enrollment of two thousand families. The monthly recording and coaching visits would go on for two years. On earlier visits, Taveras had discussed a baby's cognitive development by bringing a little wax model of a brain with her.

The family lived in an apartment in Southside, on a block of small, scrubby lawns, chain-link fences, and two-story wooden houses. It was a predominantly Latino neighborhood, where a third of the families have incomes below the poverty line. On a nearby street, there was a corner shop, Perla del Caribe, and a meat market, El

Vecinos, but there was no one out on the street that morning, and it felt a little desolate.

Inside, Taveras greeted a seven-month-old girl, Skylah, who was smiling and gurgling while propped up in an ExerSaucer. Skylah's parents, Maranda Raposo and Nicholas Mailloux, were seated on a couch in a gray-carpeted living room whose walls were mostly bare. In one corner, a cat was curled up. In another, a TV was showing an episode of "Law & Order: Special Victims Unit."

Raposo, who was twenty-one, had long, magenta-tinted hair pulled back in a ponytail. She smiled sweetly but was soft-spoken and reticent with her guests. She had dropped out of high school when she was a freshman, after she got pregnant with her first child, Isabella, who was now five. Raposo was hoping to get her G.E.D., but in the meantime she was working two part-time jobs as a cashier, at Party City and at Sears. Mailloux, who was twenty-five and had a five-year-old son by a former girlfriend, was staying home with the kids. Raposo told me later that she had been willing to try Providence Talks because "it was something we could experience with Skylah—it could bring us closer as a family." Just as she and Mailloux wanted to help Skylah stand out by giving her a name with an unusual spelling, they wanted to feel that the time they spent with her was special. "Some people don't even bother talking to their kids," Raposo said. "We talk to her." Nevertheless, before enrolling in the program she hadn't known "exactly how important that is."

Taveras plopped down on the floor and, like Mary Poppins with her carpet bag, started pulling items out of her satchel. She handed Mailloux a board book, "Peek-a Who?," and he put Skylah on his lap and started reading it to her: "Who do you think it's gonna be?" Skylah patted the book and giggled.

Taveras showed them graphs generated by the previous month's recording, noting

that their words and conversational turns had gone down a bit. "I went to the nail salon that day," Raposo recalled. "Everybody was talking to her, but she was just, like, staring."

"She wasn't in a talking mood that day," Mailloux added.

"That happens," Taveras reassured them. "What's important is that you challenge yourself to do better the next time." At one point, she asked, "Are there particular times of the day when you read to her? How many times a day, would you say?"

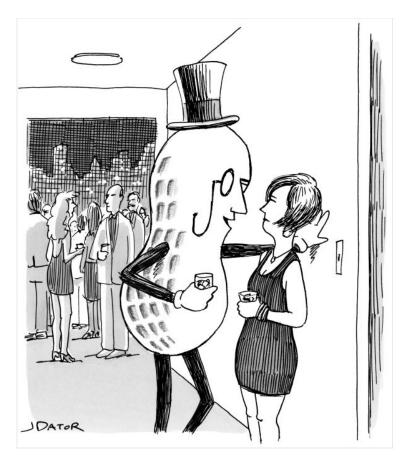
Both parents seemed a little vague on this point. After a moment, Raposo said, "We try to do it more than once."

Taveras asked them what they thought Skylah was learning when they read to her.

"Colors, shapes, animals," Raposo said.

"Yes, and also she's learning about relationships," Taveras said. "You're teaching her that she's important to you. You're making her feel good about herself." Both parents nodded. "And educational skills, too. When she gets to school, she's gonna already be used to sitting still and paying attention."

Taveras told them, "Babies at this age like books with large photos, bright pictures, simple drawings, and familiar things." She recommended board books, noting, "Paper books she's gonna want to tear and chew."



"Mr. Peanut is my dad—you can call me Rick." October 10, 2011Buy the print »

Taveras then offered some thoughts on how to read a book to a baby: "It's a four-part interaction. Get your book, point to something in the book—'Look, Skylah, a ball!'—ask a labelling question—'What's that? That's a cow! Moo! Can you say moo?'—and acknowledge her response. Like, if she babbles or makes a noise, make it back to her, so she knows you heard her. And, if you correct, do it positively. If you say, 'What's that?,' and she says, 'A dog,' you could say, 'It looks like a dog,' or 'It's brown like the dog, but it's a monkey!' That makes her feel good. Not just 'No,' or 'No, that's a monkey.' "

Raposo nodded again, but she seemed most comfortable quietly watching Taveras, who remained on the floor, singing and clapping with Skylah.

Though cultural factors may well explain why some low-income parents talk

relatively little with their toddlers, the most obvious explanation is poverty itself. When daily life is stressful and uncertain and dispiriting, it can be difficult to summon up the patience and the playfulness for an open-ended conversation with a small, persistent, possibly whiny child. In 2007, Richard Weissbourd, a senior lecturer at the Harvard Graduate School of Education, helped establish a campaign in Boston that urged parents to talk to their kids, and he organized focus groups with low-income parents. "You had some people working three jobs or dealing with the steady drizzle of helplessness and hopelessness," he recalled. "That makes it hard to have vibrant conversations with a baby. They'd say, 'Look, when I get home I have to clean and cook and do the laundry.' They're exhausted. They'd say, 'Sometimes we have to put our kids in front of the TV.' "Weissbourd said of interventions like Providence Talks, "Maybe we have the model wrong. Maybe what we need to do is come in and bring dinner and help with laundry and free up a parent to engage in more play with their child."

Patricia Kuhl, a co-director of the Institute for Learning and Brain Science at the University of Washington, has studied "motherese," the brightly inflected talk that mothers, whatever their native language, direct at their babies, and that babies love. (Fathers and other adults, of course, are equally capable of saying "Sooooo big!" in a singsong voice.) Kuhl told me, "Motherese, when you combine that with being one on one with a baby, is dynamite for language development." Parents are paying full attention, speaking in that high, lilting voice for maximum reaction, giving babies a chance to babble and coo back. But, Kuhl added, "Motherese is, by nature, happy talk. If you're stressed or depressed, it can be hard to get into that mode."

Then, too, some parents may not see the point of talking to babies, who can't yet speak, or even of talking much to toddlers, who do, but sometimes unintelligibly. Andrea Riquetti told me, "I think educated people are more aware of the importance of communication and interaction and language." In some families, she said, "if a baby's really 'good' they get to spend a lot of time alone in their crib."

When I asked myself why I had talked a lot with my babies—and had read aloud favorite picture books to the point that I could recite them from memory—I realized that I hadn't been driven mainly by knowledge of brain development or by pedagogical intent. It was just that talking made the daily labor of mothering more interesting. Long stretches of time with toddlers can be boring, and the unavoidable moments when you admonished and corrected them were, to me, the dullest. It was more fun if you satisfied your own intellectual curiosity along with theirs: reading books about African animals or Chinese New Year celebrations; trying to remember why the sky is blue; honing age-appropriate arguments for eating your carrots.

When a family places a very high value on discipline and respect for parental authority, there is often disapproval of talking back, which can inhibit conversation in general. To some extent, this attitude tracks with class, perhaps because many working-class parents, consciously or not, are preparing children for jobs and lives in which they will not have a lot of power or autonomy. The sociologist Annette Lareau, in her classic 2003 study, "Unequal Childhoods," interviewed the parents of eighty-eight nine- and ten-year-old children, then closely followed twelve of these families in order to compare the child-rearing styles of middle-class parents with those of poor and working-class parents. The middle-class families she observed practiced what she called "concerted cultivation": enrolling kids in various organized activities led by adults, but also engaging even young kids in a lot of backand-forth conversation with adults. Working-class and poor families favored an "accomplishment of natural growth" approach. Their children's lives were less customized to their preferences or to their parents' notions of how to develop their particular talents; discipline came in the form of directives and, sometimes, threats of physical punishment; talk was less extensive and less geared toward drawing out a child's opinions.

When I asked Lareau, who teaches at the University of Pennsylvania, about the language aspect of her research, she said, "The class differences in the amount of

speech inside the families really surprised me." She recalled that a white working-class girl in her study once brought up a weighty spiritual matter with her parents: "We were sitting in their completely comfortable, pleasant living room. The girl was all excited. She said, 'Do you know what a mortal sin is?' The parents said, 'You tell us.' They listened to her answer, said nothing in reply, and went back to watching TV."

In middle-class families, Lareau frequently witnessed the kind of verbal jousting between parents and children that gives kids a certain intellectual confidence. One upper-middle-class African-American family she spent time with—Terry, a trial lawyer; his wife, Christina, a corporate executive; and their nine-year-old son, Alexander—was especially fond of these kinds of debate. In one conversation, Terry playfully challenged his son to defend his list of favorite cars: "Last time, you said the Miata, the Mercedes, and the Bugatti. Which one is it?" Alex replied, "This is America. It's my prerogative to change my mind if I want to."

Lareau did not see the middle-class approach as inherently superior. "The amount of talk in those households is exhausting," she said. "It involves a lot of labor on the parents' part, and sometimes parents are really not enjoying it. Sometimes kids use their verbal acuity to be really mean to each other." She often found the kids in poor and working-class families to be more polite to their elders, less whiny, more competent, and more independent than their middle-class counterparts. Still, Lareau concluded, the kind of talk that prevailed in middle-class households offered better preparation for success in school and in professional careers. It taught children to debate, extemporize, and advocate for themselves, and it helped them develop the vocabulary that tends to reap academic rewards.

James Morgan, the Brown University linguist, told me, "If you're mainly confined to 'Eat your food,' 'Chew every bite,' there are going to be fewer words heard at the dinner table. As opposed to starting a conversation with 'Hey, did you hear the blue

whales are making a comeback off California?,' or 'Oh, they just discovered a huge new dinosaur.' And, after all, almost all little kids are interested in subjects like that."

Asking such questions often depends on having an education. But it's not just the topics—it's the mode of inquiry. Anne Fernald said, "As an educated mother, you have more experience with teacher talk, which is necessarily more abstract, because kids don't share common ground when they come to school. Education helps you learn how to make yourself clear to people who are outside your point of view."

Last summer, I returned to Providence to see how the campaign was working for the families I'd met in April. Andrea Riquetti, the program director, and Stephanie Taveras, the caseworker, took me back to the home of Maranda Raposo and Nicholas Mailloux. Skylah was now ten months old, and even more adorable, but the latest data were disappointing: the number of conversational turns and the over-all word count weren't as high as Taveras would have liked to see.

Mailloux told her, "As soon as that vest goes on, she quiets down."

"Are you onto us, Skylah?" Taveras asked, smiling.

Mailloux pointed to an uptick on the chart. "I sang to her at ten o'clock."

"Look at that!" Taveras said.

Raposo's older daughter, Isabella, was sitting on Mailloux's lap, watching the Disney Channel. Skylah crawled over to her and bopped her gleefully with the remote control.

"Stop being so mean!" Raposo told her.



"We design them here, but the labor is cheaper in Hell." August 30, 2004Buy the print »

Riquetti stepped in to offer a benign interpretation of Skylah's behavior: "She's saying, 'Pay attention to me.' "Soon afterward, Skylah, grinning, dropped the remote control, and the batteries rolled under the couch. "This is the age where they're trying to see how gravity works," Riquetti explained. The remote was put back together and the TV was turned off. "It's cause and effect. She's trying to make you—"

"Work," Raposo said.

Riquetti laughed sympathetically, then asked her how much time they spent reading with Skylah. Raposo answered firmly: thirty minutes a day.

The TV was back on again. Riquetti had told me that asking families to leave the set off could seem intrusive and high-handed. The staff at Providence Talks had hoped that, once parents saw data showing how much less conversation took place when the TV was on, they would leave it off more often. But the habit wasn't so easy to break.

On this visit, both parents seemed more attuned to Skylah's efforts to express

herself, and more confident in their efforts to guide her. It was hard to say if this was because Skylah was older and more vocal or because Providence Talks had taught them to interact with her in richer ways. When I asked them about the change, Mailloux gave the program credit. "It helps us learn more of how she understands things and reacts to them," he said. "And . . ." He paused, flustered. "I don't know how to put it into words. It's in my head, but it won't come out."

As part of the visit, Taveras was going through a developmental checklist for Skylah. One of the questions was "Does she express pleasure and displeasure?"

Both parents nodded vigorously. "If there's something she doesn't want, she screams and throws it," Raposo said. "It's so funny."

"Does she play with sounds, like vocal play?" Taveras asked. They nodded.

"What do you do when she does that?"

"Copy it," Mailloux said.

"Perfect."

Raposo picked up a board book that contained pictures of animals. "Where's the mouse?" She took Skylah's finger and gently placed it on the correct image. "Right there!" she said, in motherese.

Mailloux pointed to a picture of a messy room in the book. "That looks like your brother and sister's room, doesn't it?" he joked.

Riquetti said, "You're pointing and labelling and talking to her constantly. It's great. It's so important that you do what you do. You're making her smart when you talk to her."

Mailloux looked a little sheepish. "It's out of respect," he told Riquetti. "You guys do

your part, and we gotta do ours."

In Angel Taveras's proposal to Bloomberg Philanthropies, he promised that Providence Talks would have a research component. Its results would be monitored and studied by a Brown University professor of educational policy, Kenneth Wong. The results of that study won't be published for some time, since the interventions are supposed to last for two years, and Providence Talks is only now expanding from its original pilot study of fifty-eight families. But there had been some analysis of the data from the first families, and Rob Horowitz, a spokesman for Providence Talks, told me, "We are seeing early but promising preliminary results. More specifically, families that started with low word counts are showing increases of about fifty per cent in daily word counts and thirty per cent in conversational turns. The improvement is not as marked for families that began the program with above-average word counts."

Of course, the hard numbers are only part of what you'd want to know: to assess how successful an intervention like Providence Talks had been, you'd have to look at whether the kids in the program entered kindergarten readier to learn, with bigger vocabularies than those of children in a control group. Wong and his team are looking at these questions.

The caseworkers at Providence Talks had impressed me with their sunny, gentle directives, but I wasn't sure if they could effect sweeping changes in the children's lives. Many of the core aspects of a parent's conversational style would be hard to alter, from grammar to vocabulary. And it didn't seem easy to revise, say, a parent's relationship to books. Riquetti had told me about a mother in the program who came to her crying because she had never read a book to her toddler. Since the child couldn't read, she hadn't seen the point of turning the pages together, looking at the pictures. Now she would try it, but she wouldn't be drawing on what the linguistic anthropologist Shirley Brice Heath had described to me as the "romantic memory,"

the nostalgia, of books being read to you when you were a child." Even if you succeeded in getting such parents to read books regularly, the effect of the intervention would be minimal compared with, say, helping somebody like Maranda Raposo go back and finish her education. The last time I spoke with Raposo, she told me that, with two jobs and her kids to care for, she didn't have time to study for her G.E.D. When I tried, on several occasions, to contact the family again, I couldn't reach them—their phones didn't seem to be working—and Stephanie Taveras thought that they might have moved.

Providence Talks had more obvious value if you saw it as the beginning of a series of sustained interventions. Some of the children will likely attend preschool programs that will help them build on any language gains. Providence Talks will also help identify kids who could benefit from speech therapy and other support. Mayor Taveras told me he hopes that this integrated approach will become a model for the rest of the country.

The word "empowering" is overused, but a clear strength of Providence Talks is that it seemed to instill confidence in parents. Those rising graphs promised that parents could make a demonstrable difference in their children's lives. The parents I met did not seem to feel chided by the data, and they liked the idea of competing with their partners or themselves to log higher word counts.

One night in Providence, I had dinner with Andrea Riquetti and Toby Shepherd, the official who had first told Mayor Taveras about the word-gap problem. "Providence Talks is not a panacea," Shepherd said. "These families face all kinds of challenges—unemployment or whatever it is. My hope is that it's a helpful tool."

Riquetti said, "It's a chance to talk with parents about how they can positively interact with their kids. Sometimes in their busy lives, their stressful lives, they miss out on that." The goal, she said, was to help parents "feel they can make a difference

when everything else kind of sucks."  $\blacklozenge$