Worlds Apart
One City, Two Libraries, and Ten Years of Watching Inequality Grow

BY SUSAN B. NEUMAN AND DONNA C. CELANO

Like a bright beacon on the hill, the Lillian Marrero public library rises majestically above the deserted buildings and bulldozed voids below on Germantown Avenue. Here in the heart of what is known as the Philadelphia Badlands, makeshift garbage dumps line the sidewalks. The tall grass that surrounds abandoned lots does nothing to obscure the stacks of tires, worn stuffed chairs, and piles of bottles, bags, and takeout containers indicative of the profound decline in the economy of this part of the city since its heyday in the mid-20th century. Although it’s a stunningly beautiful summer day, one that normally draws you outdoors, there’s not a seat to be had in the library. By 10:15 a.m., you can hear the hum of dozens of people speaking in hushed tones, groups gathered around the computers, and some 40 others scattered throughout the library, browsing the stacks or reading quietly at one of its nine tables.

Grabbing the #23 bus, and traveling just 6.6 miles from the Badlands, you’ll find a strikingly similar scene at the graceful Chestnut Hill library, next to the old trolley turnaround. Here too, the library is bustling with about 20 adults at the computers or selecting books. On this fine warm day, more than 20 preschoolers are cuddled along an architect’s replica of a trolley, filled with

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ILLUSTRATIONS BY ENRIQUE MORENO
It would be easy to attribute Reynaldo’s problems to personality: he was irresponsible or lazy. But we see him daily at the library.

of copious notes by his side offer evidence of just how seriously he takes his study, while a thick pamphlet, “Purgatory and Prayer,” hints at what sustains him. There is Michelle, watching her only child, Theo, play on the computer, recognizing that her own computer illiteracy will limit the potential for academic achievement of her unusually inquisitive child.

In the Chestnut Hill library, there is the mother dutifully looking for guided leveled readers, coaching her 6-year-old so that he’s ready to zip right through to grade-level 3. There’s little 2-year-old Phoebe, whose mother can’t seem to resist giving an informal vocabulary lesson while she reads a story: “It says he has a puzzled expression. What do you think ‘puzzled’ means?” And there is Beth with her two children in tow, grabbing the latest John Sandford and Jeffrey Archer mysteries for herself along with a couple of Peggy Rathmann and Judith Viorst books, which apparently are always winners with her young girls.

The underpinnings of desperation so palpable in the Lillian Marrero library result from a confluence of circumstances hardly imaginable in Chestnut Hill: Poverty. Segregation. Environments where joblessness and lost hope are the norm. While many of us may vaguely recognize the ghettoization of poverty, few can appreciate how it concentrates in environments that are isolated geographically, socially, economically, and educationally.

This spatial concentration of poverty and affluence—in this case within the same school district—virtually guarantees the intergenerational transmission of class position. Poor children barely have a chance to succeed. Rich children have little option not to.

You can see how social geography works against human capital formation at the Lillian Marrero library in the Badlands. Reynaldo, a young Latino man, 22 and out of work, spends time at the library every day trying to learn more about anime, a form of film animation that originated in Japan. He dreams of being a film director or a screenwriter, an interest he developed thanks to his English teacher in middle school. But due to family problems, he dropped out of school in the 11th grade.

Chris, 25, also a regular at the library, enjoys the quiet air-conditioned setting to support his interest in poetry—mostly Langston Hughes. He also studiously works on learning another language, and occasionally uses the Rosetta Stone software on the library’s computer. But he, too, dropped out of school. “I enjoyed math at one point, then it all fell apart.” As he describes his experience at the local high school, the brightness in his eyes now dims. Until now, Chris had been sitting tall, leaning slightly forward, animated in describing his interests. Now he leans back and slumps down, his body language divulging volumes.

It would be easy to attribute Reynaldo and Chris’s problems to some personality or dispositional factors: they were irresponsible, lazy, or lacked the desire to excel in school. Such designations reflect a characteristic feature in social psychology known as the fundamental attribution error, which is the general tendency for people to overestimate individual factors and underestimate situational factors. But the very fact that we see them and their friends daily at the library, not at a bar or a pool hall, indicates that situational characteristics are at work. It is not that Reynaldo and Chris have few aspirations; it is that neither has been born into a social position with the resources that could give them a fighting chance.

Same City, Different Paths

“Picture perfect” is how you might describe the gentrified neighborhood of Chestnut Hill. As you stroll down Germantown Avenue, the community’s main thoroughfare, you will find a
The contrasting ecologies of affluence and poverty are a source of increasing racial prejudice and widely different opportunities to become well educated.
Striking similarities initially appear: teens in both libraries spend the same amounts of time reading. It’s not until you look below the surface that you find striking differences.

Lillian Marrero’s 23,489 items for adults/teens and 17,953 items for children, at least to the untrained eye, there’s a similar effect. What you see is akin to a candy store of reading choices including newspapers, magazines, and books on every imaginable topic.

Striking similarities initially appear in the patterns of reading in these two different neighborhoods: adults and teens in both libraries spend almost exactly the same amounts of time reading and in related activities. It’s not until you look below the surface that you find an equally striking pattern of differences, reflecting both the immediate effects of the environment and its longer-term impact on the development of information capital.

Let’s take a look at the young adult section. Here, the activity in both libraries is dense and active. We tally 157 teenagers, or about 8 teens per hour, at the Lillian Marrero library, and 115, or about 6 per hour, at Chestnut Hill. But when we look closer, we begin to notice a curious pattern: in the Badlands, although students read at their age level about 58 percent of the time, 42 percent is spent reading down. You might see, for example, early teens reading Highlights magazines, books from the Dr. Seuss collection, even board books—materials that are far below their age level. Compare this with students from Chestnut Hill: most of their reading is at their age level (93 percent), with a small percentage age reading up using above-level materials (7 percent).

Although the amount of time spent reading is almost equivalent in both settings, the challenge level is strikingly different. Given that low-level resources are likely to have limited relevance to their current lives, why would students from the Badlands select materials of lesser challenge? Could it be because these students are poor readers? Does it have something to do with self-efficacy, their perceived beliefs about their reading abilities? Or might it reflect how they are socialized early on about reading and its purposes? We turn to the preschool sections of the libraries to look for the answers.

**Same Curiosity, Different Opportunity**

In the often-caverned preschool settings, we adjust our strategy: we look at the activity pocket of the setting more globally to understand how children become socialized around books. We conduct our observations in two-hour increments for a total of 20 hours in each setting, attempting to capture interactions with toddlers and preschoolers around books. Additionally, we note the approximate length of stay throughout the visit as well as the family member who generally accompanies the child. Our observations indicate stark differences in attendance, activity, length of stay, and checkouts.

It starts with the adults. In the Chestnut Hill library, children always seem to enter the preschool area accompanied by an adult—most often their mother but occasionally a father, a nanny, or a grandmother. In comparison, in the Badlands, young children almost always enter alone, sometimes with a sibling but very rarely with an adult. Occasionally, an older brother or cousin might help locate a book or read to them. But more often than not, we see short bursts of activity, almost frenetic in nature. With little to do, children wander in and out with relatively little focus. Rarely are books checked out.

For children in Chestnut Hill, the activities are highly routinized. Invariably, the accompanying parent takes charge, suggesting books, videos, or audio books to check out. Sometimes the parent might pull a book down and let the child examine it or ask a child what types of books to look for. But the parents are clearly in charge: in a very authoritative manner, they sometimes note, “That book is too hard for you,” “That is too easy,” or “This one might be better.” Parents steer children to challenging selections, sometimes appeasing them with a video selection as well. Visits are brief, highly focused, and without exception, end with checking out a slew of books and, often, DVDs.

Inside the spacious preschool area at Lillian Marrero, separated from the rest of the library by “castle walls,” we find bins and baskets, crates and shelves full of books, and small tables with computers. We watch a father with two children in tow enter. He spreads some papers on a table. “Go sit down! You’re in a library!” he says in a loud whisper. “Go get a book,” he orders. One child sits in the stroller while the preschooler picks Henry’s 100 Days of Kindergarten, a brightly illustrated picture book, and starts to page through it. After a few minutes, she turns to her dad and says, “Can you read this? Please?” Looking like he’d much rather finish his work, he gives in. With the child sitting next to him in the little chair, he begins to read haltingly, pointing to each word as he goes. “In February, it sn… sn… um… snows.” “In June, Henry likes… ice… cream.” He stops, “Hey, ice cream,” recognizing the word he just decoded. “I love ice cream, don’t you?” The little girl positively beams. He takes about 10 minutes to read the book, studying the pictures and saying each
Dan, the “Science in the Summer” Man

There’s something incalculable about developing expertise. It is inherently motivating—even for young children. As intuitive scientific thinkers, they seem to have an instinct for seeking out evidence, noticing patterns, drawing conclusions, and building theories. When they have an opportunity, that is.

We’re in the same small room at the Lillian Marrero library that we have visited so many times before. But today, something is different. It’s quiet. Here sits a group of 5-year-olds, intently listening to a discussion of combustion and gases. They are wearing safety glasses, like those you would see in a science lab. They are wearing safety glasses, like those you would see in a science lab. The room is only without the bow tie. In bright letters on a nearby whiteboard are the words “physical change, chemical change, atom, and element.” It seems like pretty heady stuff for 5-year-olds.

Dan has given them a problem to solve. Each child has a piece of paper. He asks, “Can you make paper stretch?” “Noo!” the group giggles and squeals with delight. “But what if we changed the physical properties of the paper?” Dan asks as he whips out a pair of scissors.

He hands them each a pair of scissors and asks them to solve the puzzle. It’s a pretty complicated task, but the kids handle it well. He talks throughout:

Dan: Very good! You are amazing! You figured that out all on your own.
Destiny (about her friend Louis): He’s slow!
Dan: It’s okay. Everyone goes at their own pace.
Cinai: I messed up!
Dan: In science, we don’t call it mistakes. In science, it’s just, “Look! I did something new.”

After the kids “stretch” out their papers, Dan says it’s time to work on “other kinds of physical changes.” He brings out other materials with different physical properties, and then pulls out a cylinder filled with baking soda. He pours vinegar on the baking soda, and the kids do “oohs” and “ahs” over the eruption. They talk about the many uses of baking soda in cooking. Dan explains, “What we just saw was a chemical change. How did it happen?” Louis adds, “I think it’s because of the pressure. There is nowhere else for it to go.”

To our astonishment, now Dan pulls out the periodic table. He gives each kid a smaller version. He talks about the different symbols and colors: “Orange is for gases, blue is for liquids, white is for...?” “Solids!” the children chime in. He goes on about Au (gold), NaCl (sodium chloride), and all the differences among gases, liquids, and solids, to the children’s delight. He then gives them each a penny, a cup of vinegar, and some salt; he asks them what they think will happen. The conversation is lively, not noisy, but energizing as the children try out their ideas in simplified experiments. A solid hour passes before they take a break.

Watching the entire activity, a colleague of ours later on raises some concerns. “It’s great that the kids were so engaged, but his material is way over these children’s head. Come on... explaining physical properties... to 5-year-olds?” How predictable. If this activity had taken place in the Chestnut Hill library, parents and relatives would be chortling over how their precocious little scientists were learning about the periodic table. Here at Lillian Marrero, there was concern that the material was developmentally inappropriate.

Just about the best empirical evidence of whether something is or is not developmentally appropriate, however, is to watch children’s behavior. Throughout the entire hour, they were actively engaged, putting together facts that would enable them to develop their scientific reasoning. They were getting a sense of the different kinds of things scientists do in their professions. Dan was helping them weave together multiple moments of learning into a broader domain. He was supporting their interests and building expertise from everyday activity. To us, he wasn’t just another camp counselor. He was a hero.

-S.B.N. and D.C.C.
making selections or just reading together. In quiet voices, you hear a good deal of “parentese”—the sing-songy set of tones that the mothers and fathers use when they are talking with their young children. A mother will slow down her language and articulate each sound as her child looks at the pictures in a book. In response to her 18-month-old toddler’s interest in reading “Pippa the Dinosaur,” a mother grabs the book and says, “That’s right, it’s Pip—pa the Dinosaur.”

The parents are highly attentive to their children. Phoebe, age 2, bounds up to her mother with a board book to read. Although her mother is talking to a friend, she stops and instantly turns her attention to her child. She reads the first page, “I’ve got sunshine on a cloudy day.” As the child looks at the picture, her mother adds, “I think this is a song.” She turns the page. Phoebe points to the baby in the photo, and the mother asks her, “What is the baby doing? What does this baby have?” Little Phoebe doesn’t answer. The mother asks another question, trying to help Phoebe respond. She points to the colorful toy guitar that the child in the picture is holding. “What is that?” No answer. “What does this look like?” the mother gently persists. Phoebe whispers in her ear, “A guitar.” “Yes. It’s a play guitar, but not like Daddy’s. His is made of wood. Who is holding the baby?” Phoebe answers, “A daddy.” “Yes, it looks like Daddy.” The interaction comes as close as you can get to a textbook example of instructional scaffolding, the kinds of helpful interactions between adult and child that enable the child to go beyond his or her current expertise. The mother clearly defines her expectations and, at the same time, supports Phoebe’s ability to negotiate meaning through oral language.

The paradox of leveling the field is that in equalizing resources, the field is still unequal. Material resources, even when they are comparable in libraries, represent only one kind of support in creating an environment for reading development. We clearly see that there is a more critical factor: class- and culture-based parenting practices. Parents’ active monitoring and guiding of their children’s activities at Chestnut Hill are examples of “concerted cultivation,” the child-rearing strategy identified with middle- to upper-middle-class families. These mothers often have the luxury of part-time employment and/or nannies that allow them to devote “quality time” to their children. In contrast, children in the Badlands are more likely to be raised in a spirit of “natural growth,” a child-rearing strategy in which children learn implicitly and explicitly—but not very efficiently—through observation and their own experiences. Many of these parents work long hours at low pay and struggle with ever-changing work shifts. As a result, young children often spend less time in the company of adults such as parents or teachers, and more time with other children in self-directed, open-ended play (for which affluent parents often profess nostalgia these days). The effects of these differing strategies—which are not only a matter of resources but also of beliefs and habits—are to reinforce class divisions.

For early literacy, these differences have profound implications. In the spirit of concerted cultivation, toddlers and preschoolers in Chestnut Hill appear to be carefully mentored in selecting challenging materials; in contrast, those who experience the process of natural growth in the Badlands receive little, if any, coaching. Left on their own, these children resort to playful activity of short bursts, picking books up and putting them down with little discrimination and involvement. In Chestnut Hill, activities are carefully orchestrated to encourage reading for individual growth and development; in the Badlands, no such mentoring is available—the children are on their own.

In our quantitative data, the patterns are clear. In the Chestnut Hill library, for every hour, 47 minutes is spent by an adult reading to a child. Estimating the number of words children would hear within this hour (based on the length of the book and the time spent reading), we calculate about 2,435 words and their referents in print. During the same time period, not one adult entered the preschool area in the Lillian Marrero library. A generous estimate of words the children likely experienced as they flipped through

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books is 180, none of which were “read” to the child or decoded. By our estimate, we figured that children in Chestnut Hill hear nearly 14 times more print words read to them than those in Lillian Marrero.

**Same Computers, Different Uses**

With its small-scale furniture and its sense of detachment from the rest of the library, the early learning computer station at the Lillian Marrero library is a bit of a haven for the younger set—toddlers and preschoolers, their siblings and friends. The computers are standard issue but the keyboards are child-friendly, brightly coded with primary colors to identify the alphabet keys apart from the function keys. On the monitors, icons of a musical keyboard cue children to a host of math and reading choices and other programs. There’s the Curious George software featuring a nice reader-friendly voice, the Reader Rabbit learning-to-read series, the Kidspiration software, and book-game sets like Stelaluna, The Cat in the Hat, and Green Eggs and Ham, all seeking children’s attention.

The play, however, is not as self-sufficient as it appears. Toddlers and preschoolers, although they appear capable, are not all that intuitive at negotiating the software. Subtle things throughout programs require adult assistance and interpretation. This occurs with both the nomenclature, such as “mouse,” a term that doesn’t make sense to a small child, as well as the poor choice of words sometimes used to illustrate the lessons, including the letters of the alphabet.

Without help, children can revert to random clicking—similar to the way they flipped through books. We watch as a preschooler, alone, runs her cursor over a few icons, each shouting out its name. Picking Green Eggs and Ham, she clicks on it and two options appear: “Read to me” or “Play the game.” She starts the game, but can’t follow the narrator’s directions. Soon she clicks to another program, eventually becoming equally frustrated. She starts clicking away randomly, switching from program to program. In less than two minutes, she clicks, switches, clicks, switches about 20 times. As her frustration grows, she starts pounding on the keys as if they are a piano—until the computer screen freezes.

She needs help, yet behind her, sitting quietly, is her mother, who is watching. She does not offer assistance. There is no interaction between them. Once the program freezes, the child runs off in another direction with her mother trailing behind her.

This is the pattern we would come to document after the technology had been in place for about two years. With little supervision, random clicks would inevitably lead to computer freezes, breakdowns, and frustrations. We reasoned, however, that once the adults became more comfortable with computers, and once the technology glitches were sorted out, patterns would change. And we were right—to a degree. The technology did improve, with computers less susceptible to freezing and breaking down. But the patterns of the adults remained remarkably stable. In the Lillian Marrero library, children were generally on their own.

A few years later, for example, we observe a mom and her four tots, about 3 and 4 years old, all watching the Green Eggs and Ham story in the computer area. The children are glued to the screen. It is very much like TV—the words come up on the screen and a narrator tells the story accompanied by sounds and music. The group watches it for about 10 minutes. The parent sits toward the back of the group. She says nothing, and there is no interaction or discussion about the computer activity at all. After the program is over, one of the children pulls up a reading game associated with the story. This game requires the group to become more involved. One child controls the mouse; the others are really lost about what to do. “How do you do this?” one boy asks his mom. She shakes her head and does not offer help. The boy clicks away, obviously lost. Soon an older girl, around 12, comes over and takes over the activity as the other children watch. After a few minutes, the mom gets up. “Come on, it’s time to go.”

Sometimes we observe parents trying to cheer on their children—but from afar. We watch a small gang of little boys, ages 4 through 9, playing a computer game. We quickly see that the 5-year-old is clearly in charge. An older child tries to take over but

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Without parent support, the computer took on a role we had not anticipated: the video arcade.

books, runs after her toddler, Ava, who sees Reader Rabbit Toddler on the computer screen. Immediately, it becomes a teaching lesson. “Okay, Ava, you need to match the ‘J’ to the ‘J’ train.... That’s right, ‘D’ is for door! Okay, you have the ‘D’, now get the ‘E,’ and where’s the ‘F’? There you go!”

What might these patterns reveal about the promise of technology for leveling the playing field? We found striking similarities in the patterns of parental behaviors across book reading and computer activities. For parents in Chestnut Hill, computers seem to represent a new competitive tool to drive their young children toward greater competence and achievement. In our observations, it was virtually the norm, not the exception, for parents to use the programs to drill children (through computer play) in letters, sounds, and numbers. For parents in the Badlands, computer use was at the whim of the child and his or her interests. Most often, this would mean either rather frenetic play, with multiple applications attempted, then dropped, or advancing toward the end of the program to reach the games that were designed to serve as rewards for learning. In either case, computers were used as play without their concomitant learning advantages.

Throughout our observations, therefore, we saw pernicious signs that the very tool designed to level the playing field is, in fact, unleveling it.

The Internet may have fundamentally changed how we read, write, and gather information. Nevertheless, these new skills are actually built on some old, foundational literacy skills—the ability to decode and comprehend text. In fact, you could argue that basic literacy skills are even more essential than ever, serving as the entry point for the kinds of sophisticated skills that students will need to use media and complex information systems.

Unlike school texts, texts online are not carefully calibrated to readability levels. Vocabulary, concepts, and content may be dense, and sentences long and complicated. Words can take on specialized meanings (e.g., “operation” has very different meanings in mathematics, medicine, and day-to-day discourse). Getting the meanings of words in these complex contexts, however, is only a precondition of comprehending materials online. The second part is world knowledge. In other words, to make use of the words you are reading, you will also need a threshold of knowledge about a topic.

**Same Facilities, Different Results**

The William Penn Foundation, in many ways, succeeded in providing greater access to information and technology. In five years, it transformed Philadelphia’s neighborhood libraries, 32 in all, into technology-rich centers. Today, visiting a neighborhood library, you are likely to find collections that reflect the local culture backed by murals that typify its history and specially designed architectural features that allow for the intimacy of independent reading, as well as Internet areas, an abundance of current resources, and throngs of people using its services.

At the same time, despite this enormous effort, the initiative fell short of its goal to close the disparities in resources among communities. What became clear during our analysis is that while the initiative could greatly improve access to material resources, it could not make up for the intangible social and psychological resources—the parents and other adults who make the many pathways to reading and information-seeking meaningful and
In their very early years, children were initiated into reading and library activities in different ways. In Chestnut Hill, parents were ever vigilant and seemed to take pride in their scaffolding role, offering help, instruction, and encouragement to their children. Expectations for performance were high but so were the rewards for progress. On the other hand, parents in the Badlands appeared to support their children’s independent explorations, bringing them to the library to find resources on their own and, occasionally, receive instruction from others. These activities appeared to establish a pattern of print and media preferences and habits, with one group of students reading up and increasingly using media for information and challenging purposes, while the other group was reading down and seeking media for entertainment. Soon we began to see a pattern of what we called “the more the more, the less the less,” with students who were able to read fluently reading more and acquiring more information, while other students seemed to develop avoidance strategies, merely tolerating reading without the cognitive involvement associated with reading for comprehension.

Over the 10 years we spent in these two libraries, the gap in the amount of time adolescents spent reading increased substantially. Regardless of technology (books or computers), reading tends to predominate in Chestnut Hill but not in Lillian Marrero. After years of technology improvements, there is now a larger gap between these two communities in the amount of time spent reading than before. In fact, our rough estimates indicate that 10- to 12-year-olds at Chestnut Hill were reading more than twice as many words as their peers at Lillian Marrero.

As our research clearly shows, print and media habits established in the formative years result in differential practice with reading and create differences in the speed of information gathering and knowledge acquisition. As the information flow increases, it will be harder and harder for those who lack reading fluency and are not developing broad knowledge to keep up. Consequently, the patterns we see in Chestnut Hill and the Philadelphia Badlands act like an invisible wall, keeping each group insulated from one another, slowly creating a divide that becomes more and more difficult to cross over.

Today, the prosperity of companies and nations has come to demand high-level human and information capital—knowledge workers—who can mobilize their skills and talents to promote innovation and greater productivity. Information capital is comprised of two modes of reasoning. The first and most common mode is knowledge based. This sort of reasoning is rapid, extensive, and automatic, and powerfully increases as the cumulative product of a person’s experiences with words and the concepts to which they refer. The second mode of reasoning is slow, conscious, and rule based, and involves logical, analytic thought. Both forms of information capital accrue through first- and secondhand experiences. Young children frequently acquire knowledge about the world through firsthand experience. Everyday play activities and conversations with adults and their peers provide many initial opportunities for building knowledge. However, much of the information they will need as they grow older will not be available through conversations and experience. They will need to rely on a second source of information: print. Reading represents a unique interface with the environment, providing access to the cumulative wisdom and knowledge built by current and previous generations.

Children who get a fast start in reading are more likely to read more—and reading develops vocabulary, general knowledge, and information capital.

Endnotes
5. Carl Bereiter, Education and Mind in the Knowledge Age (Mahwah, NJ: Lawrence Erlbaum, 2002).