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Inequality Begins at Birth

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Alex Webb/Magnum Photos
Mound Bayou, Mississippi, 1976

Over the past year, the lack of universal pre-kindergarten for American four-year-olds has become a national issue. In 2013, President Obama proposed to fund an ambitious new nationwide pre-kindergarten program through a new cigarette tax. That plan failed to gain support, but Bill de Blasio gave new urgency to the issue when he swept into the New York mayor's office promising universal pre-K for all city children—which will begin in the fall. Even as these efforts are being made, however, new research is making it increasingly clear that educational disparities start much earlier.

The value of universal access to early education has long been recognized: it improves the life chances of disadvantaged children and is crucial to keeping a level playing field for all. The United States has fallen well short of this goal. In most of Europe there is universal, good-quality preschool for three- and four-year-olds. In America, recent data show that fewer than half of all three- and four-year olds are enrolled in some form of preschool. Head Start, the main federal program, provides preschool funding for only about two fifths of poor children in this group.

Moreover, America has the second highest child poverty rate out of the thirty-five nations measured by the United Nation Children's Fund (only Romania is worse). Twenty-three percent of American kids are poor by international standards, compared to 10 percent in the UK and 7 or 8 percent in the Nordic countries. According to studies on the US population, the poorest children are those five and under—indeed, they are the poorest demographic group in the nation. Many of these kids live in deep poverty, with family income less than half of the poverty line. Poverty rates for black and Latino children are especially high.

Scholars have long documented that children who grow up poor face greater obstacles to social development and good health, obstacles that often remain with them the rest of their lives. They are more likely to have chronic diseases like asthma or attention deficit disorder, few of them graduate from high school, their wages are lower, and they often end up on welfare. Poor teenage women have more unwanted births.

But neurological evidence from recent years strongly suggests that the causes of these poor outcomes are neither solely cultural nor a function of a weak gene pool, as commentators like Charles Murray, author of *The Bell Curve*, once claimed. As Dr. David Keller made clear at a recent conference on child poverty in Washington, D.C. called "Inequality Begins at Birth" (primarily sponsored by the think tank I direct, The Bernard L. Schwartz Rediscovering Government Initiative at the Century Foundation), there is new biological evidence that a high-stress environment for very young children does not simply affect cultural and psychological conditions that predispose the poor to failure; it can also affect the architecture of the brain, changing the actual neurological functioning and quantity of brain matter.

In other words, pre-K is not enough. What is concerning, moreover, is that these findings have been known for some time but are not getting adequate attention. In fact, the original documentation was published back in 2000 in a vanguard book edited by Jack P. Shonkoff and Deborah A. Phillips, *From Neurons to Neighborhoods: The Science of Early Childhood Development*, and corroborating studies have multiplied since then.

Indeed, two studies completed in 2013 relate neural deterioration directly to poverty. A group of researchers from six universities measured the brain activity of adults who had been poor at age nine and found that the areas that control emotions were physically underdeveloped. A Washington University study found that poor children who are nurtured adequately, thus avoiding constant stress, usually have normally developed brain tissue, while those with less nurturing have less white and grey matter and smaller control centers, such as the hippocampus.

What's been discovered is that human beings have a chemical reaction to stress that at first protects them from damage. But the defense is limited. Should a young child, whose brain is still forming, be bombarded by constant stress—from violence at home, lack of food, parental drug abuse, and, not least, chronic lack of attention or nurturing—the overloaded mechanism fails and the brain is adversely affected.

Dr. Shonkoff, who now runs the Center on the Developing Child at Harvard University, has produced numerous articles with colleagues describing the result of studies on animals and, increasingly, on children. Under stress, the body produces two hormones that are protective, adrenaline and cortisol. But when stress becomes excessive—what the field now describes as "toxic stress"—the excessive hormonal activity damages neural connections, undermines immune responses, and changes the parts of the brain that directly affect memory, learning, and emotional control.

These studies generally concur that persistent neglect and inadequate nurturing are primary causes of brain deterioration. Evidence based on a wide variety of studies of children, including children in foster care around the world, clearly shows, usually with the use of MRIs, the detrimental consequences for neural connections and brain size of seriously inadequate nurturing.

Sociological research, in turn, shows how common child neglect is among the poor. Poor parents are fraught with anxieties about providing adequate food and transportation, and often the safety of their communities and the stability of their families. Some may simply be irresponsible, or use drugs, but numerous ethnographies of the poor, by the Children's Defense Fund, independent scholars, and others, show that these parents, including single mothers, care about their children as much as parents of greater means. The issue is rather that they often can't get jobs that allow time for them to spend with their children and lack the resources, time, or freedom from anxieties to cope. Studies also show that the quality of prenatal care can affect early childhood development and that pregnant women on drugs or in depression can also affect the newborn child's neurological growth.

What is most fascinating about the recent discoveries is that they split the difference between those who put the onus on the gene pool, like disciples of Murray, and those who put it on culture. Genes do in fact matter, it turns out, but the parental and cultural environment, researchers find, can improve neural capacities or prevent deterioration. Dr. Keller, an MD and researcher, is president of the Academic Pediatric Association. As he puts it, "the new research is not pure Darwin, there is a bit of Lamarck here."

Medical and science professionals now virtually all agree that the earlier a positive intervention is made in a child's life—including home visitations by professionals, parent counseling, treatment for substance abuse, and relatively new programs, such as reading to toddlers even before they have language skills—the better. Pediatricians, including the giant American Academy of Pediatrics, are developing plans to use pediatric visits as a platform for more extensive intervention when undue stress is evident. One favorite program is a free book with every shot.

What concerns me most, however, is that our political leaders and legislators have until now largely overlooked the connection between poverty, poor educational attainment, and even neural malfunctions—and the extent to which effective poverty reduction itself can correct the problem. Economists Janet Gornick and Markus Jantii analyzed data across nations and concluded that child poverty is far lower in European nations, not because their economy produces higher wages for lower income workers, but because of more robust social programs. Most of these nations, and many in Latin America, for example, provide direct cash allowances for parents with children.

More and better paying jobs are vital to combating child poverty and the problems it leads to. A full employment economy, with good jobs, is still possible with substantial fiscal stimulus, especially including public investment in infrastructure.

But social programs are critical. Contrary to the widespread cynicism about social programs and welfare, the US knows how to reduce poverty. As Robert Greenstein of the Center for Budget and Policy Priorities notes, the federal safety net, including Medicaid, Food Stamps, the Earned Income Tax Credit, and the Child Tax Credit, kept 41 million people out of poverty in 2012, including 9 million children. Without government benefits, today's poverty rate would be 29 percent. Instead, using the best measures of poverty, which include government transfers and tax credits, the rate has dropped from about 26 percent in the late 1960s to 16 percent today. In other words, the War on Poverty begun in the 1960s worked.

But amid growing inequality between the very rich and the rest of society and decreasing social mobility at all levels, the challenge for low-income Americans is great. Our current general poverty rates—especially among young children—are still dangerously high. Particularly disturbing, child poverty rates, after rising during the recession, have not fallen in the recent economic recovery.

I'd begin a new war on child poverty by developing a federal system of cash allowance to poor families with children, as so much of the world now does. Now, aid is mostly limited to purchases of food or dependent on getting a job, which for many in this group these days is especially hard. But in a political environment in which Congress seeks even to cut back food stamps, persuading our legislators of the moral and economic good sense of direct cash outlays will take a great deal of work.

The research is now undeniable. Inequality in America begins at birth, or, for those born to women who are ill during pregnancy or do not have adequate prenatal care, even before. Through no fault of their own, up to one quarter of American children start off well behind, and another quarter live in families that earn only twice the poverty line—about $48,000 a year for a family of four. Armed with the unambiguous findings of twenty-first-century neuroscience, we can no longer just tell children raised poor to study harder and find jobs as they grow up. A nation that needs all its citizens to be productive workers, and that promises a fair and dignified life to all, regardless of race or color, must now turn its attention to its enormous pool of poor children.

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