Changing the Climate on Early Childhood

The science of early childhood development is as persuasive as the science of global climate change. Today, both challenges urgently call for a transformative politics.

By Lawrence Aber

In certain respects, the threat of lost human potential and the science of early childhood development are much like the threat of global warming and the science of climate change. Can the human development movement take a few useful lessons from the global warming movement? Can we more effectively engage science to advance a progressive politics of early childhood development?

The globe, seen from a satellite, is elegantly simple: perfectly spherical and awash in blue and white. But down here at ground level we see its profound complexity: continents, oceans, and seas; millions of interrelated organisms; essential matter literally indispensable to the creation and support of life. The natural and environmental sciences have made enormous progress over the last few decades in analyzing that complexity. Their essential insight is that the globe is a whole system. You can’t seriously assault a part of this system (CO₂ emissions from rich economies boring a hole in the ozone layer) without affecting other parts of the system (weather and public health). It has taken the analytic and creative brilliance of an entire community of scientists to demonstrate that environmental practices must change or we will do permanent systemic damage to our globe.

I hope by now, some kind readers have already begun to draw the analogies. Infants and young children, seen from a safe distance, seem elegantly simple. But any parent knows what the brain, behavioral, and developmental sciences have analyzed and mapped in exquisite detail: an infant, toddler, or preschooler is enormously complex, and while made up of specific parts and processes, it is all integrated into an entire system. Serious assault or neglect of any part of this system means affecting other parts of the entire system. The science of early human development is as persuasive as the science of climate change. The phenomenon is a system.

If this analogy is useful, it calls our attention to the need to change the fundamental nature of the relationship among science, practice, and politics, no less for our children than for our planet. This is not brand-new territory for the early childhood movement. The credible, nonracist science of intelligence, pioneered by professor James McVicker Hunt of Illinois and others in the 1950s, came to a similar insight that the Nobel laureate James Heckman is championing today: the cost-effectiveness of investment in early childhood development.

As learning begets learning, the early years are especially influential on lifelong attainment. These scientific insights 50 years ago fed the political decision to include Head Start as an essential feature of Lyndon B. Johnson’s War on Poverty. Importantly, one of the critical design elements of Head Start was parent and community participation.

Head Start was powerfully influenced by Edward Zigler, then a young professor of developmental psychology serving as Nixon’s first director of the newly created Office of Child Development, and Julius Richmond, then a young pediatrician (and later, a distinguished surgeon general under President Carter). These men were practical academics. If we are to seize on the opportunity to give poor children a Head Start on learning, they reasoned, we need to ensure that children aren’t going to school hungry or malnourished, that they have the social competence to effectively interact with teachers and peers, and that what they learn in Head Start is supported and reinforced at home by parents. Zigler and Richmond, basing their reasoning on both their practical wisdom and the scientific knowledge of the day, believed in educating and nurturing the “whole child” (to use Zigler’s famous term) as the objective of Head Start: cognitive growth, yes, but also physical health, mental health, social competence, and aligned and supportive parenting. In short, like the globe, the young child is a whole system, a dynamic system of complex, interlocking subsystems.

The Current Science of Early Child Development

Over the last several decades, the science of early development has witnessed the same explosive growth as most other scientific fields. Through new technologies like functional magnetic resonance imaging, scientists now see how the brain grows structurally and functions as a system. Through careful analysis of videotapes of parent-infant interaction, scientists can see the ways children become attached to parents and grow in emotional security. A growing body of evidence from the brain, behavioral, and developmental sciences has led to a new and powerful metaphor: the “relational brain.” It is incontrovertible: The infant brain is hard-wired for relationships, and the optimal growth and development of the human brain in the early years is largely dependent on the nature and quality of a child’s few and most important human relationships.
These and kindred scientific advances have enabled society to clearly identify the most serious threats and dangers to early childhood development. And these threats and dangers are unequally distributed both across and within nations. The most serious threats to early development globally—death in infancy and early childhood due to malnutrition, uncontrolled diarrhea, and infectious diseases and their deadly combinations; physical stunting and wasting; extreme poverty (income of less than $1 per day per person); and armed conflict—are comparatively very rare in the U.S. and other high-income countries.

But though our society is rich and more peaceful on average, family differences in socioeconomic resources drive developmental differences very early in life in what Dan Keating of the University of Michigan calls "developmental health." Infants from families in the top income quintile are born healthier, stay healthier, develop language skills faster, and experience fewer serious problems of self-regulation and social-emotional development than infants from families in the bottom income quintile. What processes cause this result? Here, the brain, behavioral, and developmental scientists have been joined (indeed led) by researchers in the public health, social, and economic sciences.

Scientists identify specific pathways of influence, from social and environmental risk to developmental processes and outcomes. One major pathway leads from low family income to reduced parental investment of money and time and then to less than optimal cognitive and language stimulation and development. The second leads from high family material hardship to parental stress and harsh and disengaged parenting to non-optimal social and emotional development and mental health.

Beyond the normal stress of life in a low-income family, some infants and toddlers are exposed to what is now called toxic stress. This brand of stress is fundamentally different from the normal stress that is part of everyday life and that goesads humans to adapt and grow strong. Rather it is the chronic, extreme stress of repeatedly witnessing and experiencing violence, of being repeatedly physically, psychologically, and/or emotionally abandoned for extended periods of time. Economic insecurity and toxic stress are both damaging to early child development in their own right. Together they are especially damaging. Because the distribution of family economic insecurity and toxic stress are variably distributed according to income, the result is a socioeconomic disparity in developmental health. Imagine a new public awareness ad to call national attention to this inequality: "This is your infant's brain ... this is your infant's brain on economic insecurity and toxic stress!" It is lower-income children who are disproportionately subjected to these chronic assaults, stunting their life chances.

PRACTICE, CIVICS, AND POLITICS

While the science of early child development has marched briskly forward over the last 30 years, practice and politics have both lagged far behind. There is no shortage of advocacy effort. The growth in demand for child care as a work support, promoted by state and national advocacy organizations and underwritten by foundations, has led to increased state and federal investments. The dimensions of child care that promote cognitive, language, and social-emotional development are becoming better understood. Nonetheless, measured against the still-growing gap between needs and resources, these practice improvements are incremental at best.

On the civic and political fronts, progress has been even slower. Though the scientific evidence is overwhelming, a coalition has not yet come together to persuade our society to commit the necessary social investment. Parents of infants, toddlers, and preschoolers are even busier than parents of school-age children. There are fewer publicly supported, broadly based, organizing institutions for parents of young children (no PTA, no school board). Therefore, the community and civic mobilization for young children has fallen to paid professionals and, somewhat ironically, to older citizens with a bit more time on their hands who see their own children being fried alive as young parents.

As a consequence of the failure of our politics to learn from our scientists, programs supporting development in early childhood remain tremendously underfinanced. The lion's share of public expenditures on children in America is spent on K-12 education. And of course the ability of families to devote adequate private resources is also skewed according to class. Universal education is slowly creeping down from 6-year-olds to 5-year-olds to 4-year-olds. But the first three years of life are bereft of serious, equitable social investments. America needs to set itself on a course to publicly invest in early childhood at the same rate as we invest in K-12 education.
**A WAY FORWARD?**

If managed properly, a political commitment to equity in public funding for early childhood development could have transformative effects, just like a commitment to serious reduction of carbon emissions. It requires smart decisions today about how to reach concrete goals over a 10-year to 20-year period. A dramatic increase in resources for child development could energize sleepy sectors of society and create a framework for renewed civic discourse and political activity. A national commitment could give new reasons to draw on the new science of early development to improve the technology of practice. Just as universal provision of publicly funded K-12 education closes (but does not yet eliminate) the resources gap between poor and wealthy families' children, so too would universal funding of infant/toddler care and education close the even larger resource gap in early childhood.

Equity across age groups in public investments will not cure all the challenges facing America in meeting the needs of our youngest children. But it will go a long way in making most of the major challenges easier to solve. Outlays in the range of $7,000 to $10,000 per year per child would dramatically reduce family economic insecurity and toxic stress for our most vulnerable children. This scale of investment in all our nation’s young children can have the same positive effect on social solidarity across class lines that policies like Social Security and universal K-12 education have had in the past.

There are a wide variety of policy options available to increase public investments in the first three years of life. Each has its own set of political and technical challenges. High-quality, center-based child care on the model of Scandinavia and France is the most similar to public K-12 education.

Early childhood development vouchers, redeemable to purchase high-quality care or to support parents to care for their own infants/toddlers, would be taken up by a larger proportion of young parents—but may increase the demand for vouchers in K-12 education, a risky deal if there ever was one.

Many of the problems with center-based care and vouchers would be avoided if the U.S. were to adopt a generous children’s allowance, available until they reach the age of universally available public education. Personally, I prefer the infant/toddler allowance strategy as valuable in its own right and as a stalking horse for a truly universal allowance. But politically, I would want American families and their elected officials to debate the pros and cons of those and other policy options as long as the bottom line is substantial public investment in the first years of life equivalent to the public investment we currently make in K-12 education.

Why should America go deeper in debt to publicly subsidize the infants and toddlers even of our wealthy families? How can we possibly afford on the order of a hundred billion new dollars per year in public expenditures on early childhood development? How will the political support materialize?

If young parents and their young children are eligible for more high-quality public services, the voters will receive greater value for their taxes. Middle-income families increasingly face the same needs as poorer ones. We include higher-income families in public education on principle: It is a public good and a path to enhanced citizenship for all. And Heckman’s work suggests that early investment in children will more than pay for itself in the long run.

More and smarter investments in early childhood development will reduce health-care costs in the future. And they will increase the economic productivity of the next generation and thus its ability to pay our children’s Social Security. So the best question is not, “How can we afford equitable public investments in early human development in the short run?” but rather, “How can we afford not to invest in the long run?”

In the end, just as the science of global climate change will only improve practice if it is built on a broad political movement, the science of early childhood urgently calls for a transformative politics. The science is incontrovertible. What’s been missing are the civics and politics. But there is reason for hope. In the U.K., Tony Blair managed a modern politics of dramatic investments in early childhood over the last decade. In order to cut the child poverty rate by 50 percent over 10 years, he created and managed support to increase investments in early childhood by fully 1 percent of gross domestic product. By U.S. standards, that would represent an outlay of about $130 billion a year.

U.S. politicians spanning the center-to-left spectrum—from Mayor Michael Bloomberg of New York to Speaker Nancy Pelosi (who held a substantive, but quiet National Summit for America’s Children in May 2007)—are beginning to come forward with their own plans for increased investments. But no national leader has yet stepped up to make the case for equitable public investments in early childhood at an adequate scale.

We need the early childhood equivalent of the global climate change movement’s dynamic duo to make that case: the creative, analytic, persistent scientists who continually advance our understanding of developing systems that support and sustain life; and a scientifically curious major politician schooled in persistence in the face of heartbreak. Al Gore already has a job. Which major politician on the American scene has the skill and drive to become the ozone man or woman of inner space and early human development? TAP

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