

Loving Children: The Political Economy of Design

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We are shocked when violence erupts in schoolyards or when a six year-old child kills another in cold blood. But the headlines, which sensationalize such tragedies, reveal only the tip of what appears to be a larger problem that, given our present priorities, will only intensify. Youthful violence is symptomatic of something much bigger evident in diffuse anger, despair, apathy, the erosion of ideals, and rising level of teen suicide (up three-fold since 1960). Nationwide, 17 percent of children are on Ritalin, a central nervous system stimulant. Adults often respond with rejection and hostility, making a bad problem worse. We hire more psychologists and sociologists to study our children and more counselors to advise them about issues; such as "anger management." As a result there are libraries of information about childhood, child psychology, child health, child nutrition, child behavior, and dysfunctional families, much of it quite beside the point. Then in desperation we hire more police to lock children up. We are crossing into a new pattern of relations between the generations, and much depends on how well we understand what is happening, why it is happening, and what is to be done about it.

The deeper causes of this situation are not apparent in the daily headlines and news reports. Dysfunctional families, depression, youthful violence, and the rising use of chemicals to sedate children are symptoms of something larger. Without anyone saying as much and without anyone intending to do so, we have unwittingly begun to undermine the prospects of our children and, at some level, I believe that they know it. This essay is a meditation on the larger patterns of our time and their effects on children. My argument is that the normal difficulties of growing up are compounded, directly and indirectly, by the reigning set of assumptions, philosophies, ideologies, and even mythologies by which we organize our affairs and conduct the business of society what was once called "political economy." The study of political economy began with Adam Smith and continued on through Marx to the present in the work of scholars such as Yale University political scientist Charles Lindblom. Due to academic specialization and diminished public involvement in politics and community life, the field has declined. As a result, we have increasing difficulty in discerning larger social, economic, and political causes of our problems and doing something constructive about them. This essay is an attempt, in effect, to connect the dots describing those larger patterns. The first section below reviews evidence about the intersection of childhood and political economy from many different perspectives. The second section is a more explicit rendering of the political economy of contemporary global capitalism. The third and final section sketches some of the alternative political and economic arrangements necessary to honor our children and protect future generations.

The Evidence

Environmental Contaminants

By one estimate the average young American carries at least 190 chlorinated organic chemicals in his or her fatty tissues and bloodstream and another 700 additional contaminants as yet uncharacterized. Nursing infants in their first year of life have a higher body burden of dioxin than the average 70-year old man (Thornton 2000). Children are threatened by the air they breathe, the food they eat, the water they drink, many of the materials common to everyday use, and fabrics in the designer clothes they wear. We have subjected our children to a vast experiment in which their body chemistry is subjected to hundreds of chemicals for which we have no evolutionary experience. We have good reason to suspect that their ability to procreate is being threatened by dozens of commonly used chemicals that disrupt the normal working of the endocrine system. As a result, sperm counts are falling and incidences of reproductive disorders of various kinds are rising (Colborn et al. 1996). We have reason to believe that exposure to some kinds of chemicals can cause varying levels of damage to the brain and nervous system. We have, in short, every reason to believe that a century of promiscuous industrial chemistry is seriously affecting our children. And we have reason to believe that current trends, unless altered, will grow worse. The scientific evidence is compelling but is widely dismissed because of a kind of deep-seated denial and a mind-set that demands absolute proof of harm before remedial action can be taken. So instead of eliminating the problem, we quibble about the rate at which we can legally poison each other.

Much of the same can be said about exposure to heavy metals. Nearly a million children under the age of five still suffer from low level lead poisoning ("Dumbing Down the Children" 2000, part 1). Half of all children in the United States have lead levels that impair reading abilities (National Public Radio 2000). Even after leaded gasoline was phased out, Americans still have "average body burdens of lead approximately 300 to 500 times those found in our prehistoric ancestors" ("Dumbing Down the Children" 2000, part 3). The problem is not that we do not know the effects of lead and other substances on the human mind and body, but that corporations have the power to control public policy long after evidence of harm is established beyond reasonable doubt (Kitman 2000).

Nutrition and Exercise

More children exhibit the effects of bad diet and lack of exercise than ever before. The average diet of children has deteriorated in this age of affluence and fast food. Of those under the age of 19, one quarter are overweight or obese. The U.S. Surgeon General believes that the problem is epidemic: "We see a nation of young people seriously at risk of starting out obese and dooming themselves to the difficult task of overcoming a tough illness" (Critser 2000, 150). Children are bombarded with 10,000 advertisements each year hawking fatty and sugar-laden food. The problem with a junk food diet is not just obesity, but the long-term damage it does to the pancreas, kidneys, eyes, nerves, and heart. There is a national eating disorder fostered by the corporations that feed us. But the disorder is not evenly visited on children. It is most apparent among children from lower-

class homes. The junk diet of fat-laden fast foods represents a kind of class warfare in which corporations prey on the gullible, the poor, and the defenseless.

The problem of diet is compounded by a decline in physical exercise. One expert estimates that amount of physical activity of the typical child has declined 75 percent since 1900 (Healy 1990, 171). Another study shows a sharp decline in the average time children between the ages of 3 and 12 spend outdoors from an average of 1 hour and 26 minutes per day in 1981 to 42 minutes in 1997 (Fishman 1999). Indeed, capitalism works best when children stay indoors in malls and in front of televisions or computer screens. It loses its access to the minds of the young when they discover pleasures that cannot be bought.

Information

The average young person watches television a little over four hours per day. They are bombarded daily with the most tawdry kinds of "entertainment" and advertisements. Corporations spend \$2 billion each year targeted specifically on the young, intending to lure them into a life of unthinking consumption. The American Academy of Pediatrics estimates that by age 18 they will have seen 360,000 television advertisements and 200,000 violent acts ("TV Viewed as a Public Health Threat" 2001). We have no good way to estimate the cumulative impact of all this on the growing human mind, but we may reasonably surmise that television strongly affects what they know and what they pay attention to and what they can know and pay attention to. We have, by one estimate, more than 1,000 studies showing that "significant exposure to media violence increases the risk of aggressive behavior in certain children and adolescents, desensitizes them to violence and makes them believe that the world is a 'meaner and scarier place' than it is" (ibid.). Young people are probably less adept with language than previous generations. They are increasingly hooked on the Internet, so that some colleges have had to hire counselors to deal with the problem as an addiction. And what has not happened in all the TV and Internet watching? The list is a long one: healthy contact with adults, making friends, outdoor exercise, reading, contemplation, and creative activity.

Education

With growing numbers of dysfunctional families, schools are now expected to make up for what parents ought to do. At the same time, schools and colleges are under increasing financial pressures and have increasingly become places of commerce. Many children are now exposed to the blatant commercialization of Channel One during school time. Many are required to read text materials developed by corporations that celebrate the virtues of capitalism without acknowledgment of its vices. More and more they are educated to take proficiency tests, not to learn creatively and critically. While we talk about the importance of learning, public spending tells a different story. A city like Cleveland, with one of the worst urban school systems in the nation, can find hundreds of millions of dollars for a new football stadium used eight times a year, but not the money or the foresight to repair the leaking roofs of its public schools. Nationally, some 60 percent of our schools need repair (Healy 1998, 92). Young people are quick to comprehend adult priorities. Financial priorities in higher education are also skewed. Commerce is making deep inroads into the academy, and colleges and universities have become heavily

dependent on corporate support. As a result, corporations have acquired unprecedented influence over whole departments and the evolution of entire disciplines (Press and Washburn 2000).

Technology

A rising percentage of young people now spend many hours each day on the Internet or playing video games. Signs of trouble are already apparent. Internet addiction is a serious and growing problem. One study has shown that even a few hours a week on-line caused a "deterioration of social and psychological life" and higher levels of depression and loneliness among otherwise normal people (Harman 1998). The mental disorientation is caused by overexposure to a contrived electronic reality. As the technology for simulation advances, we may expect that the young so exposed will find increasing difficulty in distinguishing the contrived from the real and in establishing deep emotional ties to anyone or anything or simply taking responsibility for their own actions.

In the not-too-distant future, researchers in artificial intelligence and robotics are planning to create self-replicating machines that will be more intelligent than humans. Evolution, they say, works by replacement of the inferior by the superior, and these researchers unabashedly regard themselves as the agents of evolution with a mandate to create the next stage of intelligent life. It is not at all far-fetched to think that such alien intelligence could well find humans, meaning our children and grandchildren, inconvenient (Joy 2000). This is no longer some distant science fiction, but the reality coming inexorably, into view. It is entirely possible that the present directions of technological development will create a world of simulated reality that will be more real to some in the next generation than the world as actually experienced. It is also increasingly possible that advances in fields such as artificial intelligence will diminish what it means to be human.

Ecology/Climate

The numbers are staggering. In the United States alone, we lose more than a million acres each year to urban sprawl, parking lots, and roads. We continue to destroy tropical forests worldwide at a rate of 80,000 square miles per year (Leakey and Lewin 237). The rate that we are driving species extinct rivals that of the last great extinction spasm 65 million years ago. Oceans and virtually every ecosystem on the planet are now deteriorating due to human activity. The scientific evidence indicates that climatic change is happening more rapidly than thought possible even a few years ago. Biotic impoverishment, climatic change, and pollution are beginning to undo millions of years of evolution and with it the rightful heritage of our children.

Were we to look at the plight of children worldwide, despite a burgeoning global economy, the story in many places is much worse. In some cities it is now common to see street children with no known parents and no home other than the street. They are sometimes killed or persecuted by police and preyed upon by those who exploit them shamelessly. It is common for children in third world countries to be used in the labor force under sweatshop conditions making products for global corporations. In Africa, the

Balkans, the Middle East, and Ireland, children are caught in the middle of the worst kind of savagery. The facts differ from place to place but only as variations on a common theme of abuse, neglect, exploitation, and an astonishing level of intergenerational incompetence.

It is ironic that adults do not like the children they are raising. By one accounting, only 37 percent of adults believe that today's youth will "make this country a better place." Two-thirds of the adults surveyed find young people rude, spoiled, violent, and irresponsible (Applebome 1997). Ninety percent believe that values are not being transmitted to the young. And only one in five believe it common to find parents who are good role models for their children. No doubt previous generations often regarded the young with skepticism. What is different now, according to the authors of this study, is the intensity of antagonism between the generations and the empirical evidence supporting it. Daniel Goleman, author of *Emotional Intelligence* (1995), estimates that American children have declined on some 40 indicators of emotional and social well-being (cited in Healy 1998, 174).

Perhaps I have exaggerated the problems and the prospects for our children are quite different than I have described: Maybe these problems are mostly unrelated and arise from different causes. As any reader of Charles Dickens knows, children in earlier times were sometimes badly treated and lived in harsh conditions. And children from affluent homes are certainly not exposed to many hardships characteristic of some earlier times. But the evidence, in its entirety, is so well documented and so pervasive that we cannot mistake the larger pattern without thoroughgoing self-deception. We are unwittingly undermining our children's physical health, mental health, connection to adults, sense of continuity with the past, connections to nature, the health of ecosystems, a sense of commonwealth, and hope for a decent future. But we have difficulty in seeing whole systems in a culture shaped so thoroughly by finance capital and narrow specialization. However bad the situation of children in the past, no generation ever has done, or could have done, such systematic violence to its progeny and their long-term prospects. Most would adamantly protest that they love their children and are working as hard as possible to make a good life for them, and I believe that most parents and adults fervently believe that they are doing so. But we are caught in a pattern of deep denial that begins by confusing genuine progress, a difficult thing to appraise, with what is, simply easy to measure--economic growth. We confuse convenience and comfort with well-being, longevity with health, SAT scores with real intelligence, and a rising GNP with real wealth. We express our affection incompetently. Without anyone intending to do so, we have launched a raid on their future, stealing things not rightfully ours, leaving behind a legacy of destruction and degradation--a kind of intergenerational scorched earth policy. But why?

Political Economy

The conditions in which children experience nature is in large part an artifact of political economy, which Michael M'Gonigle defines as "the study of society's way of organizing both economic production and political processes that affect it and are affected by it"

(1999a, 125). Beginning with Adam Smith and later Karl Marx, the study of political economy has aimed "to uncover and explain what might be called the 'system dynamics' of a society's processes of economic and political self-maintenance" (ibid., 126). The political economy of the modern world, in this view, is organized around the pursuit of economic growth, a science presumed to be value neutral, and the institutions of the state and corporation. Its ideology is "high modernist," which according to political scientist James C. Scott means "a muscle-bound version of the self-confidence about scientific and technical progress, the expansion of production, the growing satisfaction of human needs, the mastery of nature (including human nature), and, above all, the rational design of social order commensurate with the scientific understanding of natural laws" (1998; 4).

The main features of modern political economy are well known, even if their effects on childhood are not. The first and, most obvious feature of contemporary political economy is the belief in the importance of economic growth and material accumulation. One day the major political fault line in the twentieth century about whether growth was to be organized by markets or governments will be seen as a minor doctrinal quibble. Regardless of specifics, economic growth has become the central goal for virtually every national government. Election outcomes are now more than ever an artifact of short-term economic performance. A second feature of modern political economy is the centrality of the global corporation. We are now provisioned with food, energy, materials, entertainment, health, livelihood, information, shelter, and transport by global corporations that operate with little oversight. The economic scale of the largest corporations dwarfs all but the largest national economies. As a result, corporations dominate national politics and policy and, through relentless advertising, the modern worldview as well. A third component of contemporary political economy is a particular kind of science rooted in the thinking of Descartes, Galileo, Bacon, and Newton. That science presumes a separation of subject from object, humankind from nature, and fact from value. Its power derives from its ability to reduce the objects of inquiry to their component parts. Its great weakness has been its inability to associate the knowledge so gained into its larger ecological, social, cultural, and normative context.

Political economy organized on these three pillars has many collateral effects on children. First, a society organized around economic growth is one that is in constant turmoil. Austrian economist Joseph Schumpeter (1978, 21-26) described the process by which physical capital is rendered obsolete as "creative destruction." Economic growth, then, means that the old and familiar is continually being replaced with something new and more profitable to the owners of capital. Similarly, the growth economy and the continual battle for market share among corporations is driven by and in turn drives a process of incessant technological change aiming for greater efficiency and speed. Creative destruction and technological dynamism, in turn, increase the velocity of lived experience. Not only is rapid change regarded as good, but rapid movement is as well. Corporations not only sell things, they sell sensation, movement, and speed, and these, too, are integral to the growth economy.

Little attention has been given to the effects of creative destruction, technological change, and increased velocity on the development of children, but they cannot be insignificant.

For one thing, familiar surroundings and places where the child's psyche is formed are subject to continual modification, called "development," but to the child this is a kind of obliteration. But these places, regarded as real estate to the capitalist mind, are the places where children form their initial impressions of the world. Such places are, as Paul Shepard (1976) noted, the substrate for the adult mind. Some part of otherwise inexplicable teenage behavior in recent decades may be a kind of submerged grieving over the loss of familiar places rendered into housing tracts or shopping malls (Windle 1994). The effects of technological change and the consequent increase in the speed of lived experience on children is largely unknown, but it is reasonable to think that the healthy pace of human maturation is much slower than the frenetic speed of a technological society. The problem of speed is, I think, pervasive. At one level exposure to television (averaging more than four hours per person per day) with constantly changing images effects the neural organization of the mind in ways we do not understand. At another level, the decline in time spent with children means that parenting is compressed into smaller and smaller chunks of time. In either case, the child's sense of time is bent to fit technological and economic imperatives.

A second collateral effect arises from rampant materialism inherent in the growth economy. Childhood lived in more austere times was no doubt experienced differently from one lived in seemingly endless abundance. From birth on, children in an affluent culture marinate in a surfeit of things as well as the desire for things not yet possessed. Love in the growth economy is increasingly expressed by giving gifts, not by spending time with a child. Again, we have little idea of the long-term effects of excessive materialism on children, but it is reasonable to think that its hallmarks are satiation and shallowness and the loss of deeper feelings having to do with a secure and stable identity rooted in the self, relationships, and place. The important fact is not simply the effects of materialism but the more complex effects of the worldview conveyed in relentless advertising that hawks the message of instant gratification in a world of endless abundance. Whatever its other effects on the child, nature in a culture so lived can only recede in importance. Time once spent doing farm chores, exploring nearby places, fishing, or simply playing in a vacant lot has been replaced by the desire to possess or to experience some bought thing. It is, again, not far-fetched to think that one consequence is a loosening of ancient ties to place and an acquaintance with wildness. Nor is it unreasonable to suppose that the effect of several decades of glorifying money and things is now apparent in polls showing that the t to get rich rather than live a life of deeper young increasingly purpose.

A third collateral effect of contemporary political economy is that the world is increasingly rendered into commodities to be sold. Indeed, this is the purpose of the growth economy. Having saturated the market for automobiles and washing machines, it proceeded to sell us televisions and stereo equipment. Having saturated those markets, it moved on to sell us computers and cell phones. Eventually, it will sell us its version of reality that will be aimed to supplant more than most of us care to admit. Commodification, too, has its effects on the ecology of childhood. Those things that people once did for themselves as competent citizens or as self-reliant communities are now conveniently purchased. What's good for the gross national product, however, is

often detrimental to communities. Real community can only be formed around mutual need, cooperation, sharing, and the daily exercise of practical competence. The effect of the growth economy and corporate dominance is to undermine the practical basis for community and with it the lineaments of trust. The absence of these qualities cannot be seen and so cannot be easily measured. Nonetheless, by many accounts there is a marked decline in community strength and social trust that cannot leave childhood unaffected (Putnam 2000). I suspect that these are mostly manifest in a decline in the imagination of a world of rich social possibilities that can only be lived out in real communities by people who have learned to live in interaction, not isolation. Instead, the young are socialized into an increasingly atomized world of extreme individualism governed by the assertion of freedoms without responsibilities. As such they are being trained to become reliable, even exuberant, consumers, but inept citizens and community members.

Much of the same can be said about the effects of economic growth on child care and the evolution of emotionally grounded intelligence in children. Economic necessity often forces both parents to work, leaving less time with their children. In psychiatrist Stanley Greenspan's words, one result of these social adaptations to economic forces is that "our nation has ... launched a vast social experiment ... and the early data are not encouraging" (1997, 179). What's at risk, he believes, are the "relationships on which developmental patterns rest" in a society in which "intimate personal interaction is declining and impersonality is increasing" (ibid., 169) These relationships, however, are crucial for the development of emotionally grounded intelligence.

Fourth, contemporary political economy is rooted in the tacit acceptance of high levels of risk that both jeopardizes the lives of children and colors their worldview. The growth economy creates mountains of waste, much of it toxic and some of it radioactive. This waste has been the driving force behind biotic impoverishment and the loss of biological diversity. Its further expansion now threatens climatic stability. Risks from technology and the scale of the economy are now pervasive, global, and permanent (Beck 1992). But the response of mainstream science, reflected in the practices of cost-benefit analysis or risk analysis, is rooted in the same kind of thinking that created the problems in the first place (O'Brien 2000). We have no way to know the full range of biophysical effects on children, nor can we say with certainty how they perceive the tapestry of risk that shrouds their future. But again, it is reasonable to think that these risks contribute to an undertone of despair and hopelessness.

Finally, the role of science in this larger political economy resembles more and more what Wendell Berry calls "modern superstition," in which "legitimate faith in scientific methodology seems to veer off into a kind of religious faith in the power of science to know all things and solve all problems" (2000, 18). Increasingly children grow up in a thoroughly secular culture, often without awareness that life is both gift and mystery. They are, in other words, spiritually impoverished. Because humans cannot live without meaning, the result is that their search for meaning, bereft of the possibility for authentic expression, can take ever more bizarre and futile forms.

It is certainly true that the situation of some children has improved vastly over what it was in the early years of capitalism when child labor was common. A full reading of the evidence, however, suggests caution in extrapolating too much. Improved living circumstances for some children fortunate enough to be raised in middle- or upper class homes is a reality, with all of the caveats noted above. But little in contemporary political economy mandates that incomes will be fairly distributed or that children in other cultures will not be exploited to produce cheap sneakers and designer jeans for those living in affluence. Nor does this political economy afford adequate protection for any child living in the future from pollution, reproductive disorders, overexploitation of resources, climatic change, or loss of species.

Relative to their relation to nature, the reigning political economy has shifted the lives and prospects of children from:

- direct contact with nature to an increasingly abstract and symbolic nature
- routine and daily contact with animals to contact with man-made things
- immersion in community to isolated individualism
- less violence to more (much of it vicarious)
- direct exposure to reality to abstraction/virtual reality • relatively slow to fast.

There are certainly exceptions. The Amish, for example, are notable because they are exceptions. On balance children in modern society are heavily shaped by a contemporary political economy that stresses materialism, economic growth, human domination of nature, and is tolerant of large-scale ecological risks with irreversible consequences. Their view of nature is increasingly distant, abstract, and utilitarian. However affluent, their lives are impoverished by diminishing contact with nature. Their imaginations, simulated by television and computers, are being impoverished ecologically, socially, and spiritually. The young, in Neil Postman's words, have been rendered into an "economic category ... an economic creature, whose sense of worth is to be founded entirely on his or her capacity to secure material benefits, and whose purpose is to fuel a market economy" (Postman 2000, 125-126). This is not happening according to any plan; it is, rather, the logical outcome of the regnant system of political economy.

We have, in other words, created a global system of political economy in which it is not possible to be faithful or effective stewards of our children's future. It is a system that, by its nature, clogs many of its children's arteries with fast food. It is a system that, by its nature, poisons all of its children, albeit unevenly, with chemicals and heavy metals. It is a system that, by its nature, must saturate most of their minds with television advertisements and electronic trash. It is a system that, by its nature, must impoverish ecosystems and change climate. It is a system that, by its nature, undermines communities and family ties. It is a system, run by people who love their children, which will measure risks to them with great precision but is incapable, as it is, of implementing alternatives to those risks. It is a system that must remove most children from direct contact with unmanaged nature. And it is a system that encourages people to see the problems that arise from its very nature as anomalies, not as parts of a larger and deeply embedded pattern. We have unwittingly created a global political economy that prizes economic growth and accumulation of things above the well-being of children.

The important issues for our children are not narrowly scientific. They have little to do with symptoms and everything to do with systems. What kind of changes in the system of political economy would be necessary to protect the rights and dignity of children now and in the future?

A Child-Centered World

On July 30, 1998, the Supreme Court of the Philippines in *Minors Oposa* ruled that a group of 44 children had standing to sue on behalf of subsequent generations. In their suit, the children were trying to cancel agreements between timber companies and the Philippines government. The court found "no difficulty in ruling that they can, for themselves, for others of their generation and for the succeeding generations file a class suit ... based on the concept of intergenerational responsibility insofar as the right to a balanced and healthful ecology is concerned" (quoted in Gates 2000, 289; see also Ledewitz 1998). The court considered the essence of that right to be the preservation of "the rhythm and harmony of nature" including "the judicious disposition, utilization, management, renewal and conservation of the country's forest, mineral, land, waters, fisheries, wildlife, offshore areas and other natural resources" (Ledewitz 1998, 605). The court further stated that every generation has a responsibility to the next to preserve that rhythm and harmony for the full enjoyment of a balanced and healthful ecology." That right, the court argued, "belongs to a category ... which may even predate all governments and constitutions ... exist[ing] from the inception of humankind." Without the protection of such rights "those to come inherit nothing but parched earth incapable of sustaining life" (*ibid.*).

The court's decision recognizes what is, I think, simply obvious that the right to a balanced and healthful ecology is the *sine qua non* for all other rights. The court acknowledged, in other words, that human health and well-being is inseparable from that of the larger systems on which we are utterly dependent. The court's decision implicitly acknowledges the inverse principle that no generation has a right to disrupt the biogeochemical conditions of the earth or to impair the stability, integrity, and beauty of biotic systems, the consequences of which would fall on subsequent generations as a form of irrevocable intergenerational remote tyranny.

No mention of ecological rights was made in our own Bill of Rights and subsequent constitutional development because, until recently, only the most prescient realized that we could damage the earth enough to threaten all life and all rights. But the idea that rights extend across generations was part of the revolutionary ethos of the late eighteenth century. The Virginia Bill of Rights (June 12, 1776), for example, held that "all men ... have certain inherent rights, of which when they enter into a state of society, *they cannot by any compact deprive or divest their posterity*; namely, the enjoyment of life and liberty, with the means of acquiring and possessing property, and pursuing and obtaining happiness and safety" (emphasis added; quoted in Commager 1963, 103). That same idea was central to Thomas Jefferson's political philosophy. In the famous exchange of letters with James Madison in 1789, Jefferson argued that "the earth belongs in usufruct to the

living ... no man can, by natural right, oblige the lands he occupied, or the persons who succeed him in that occupation, to the payment of debts contracted by him. For if he could, he might, during his own life, eat up the usufruct of the lands for several generations to come, and then the lands would belong to the dead, and not to the living" (Jefferson 1975, 445). Jefferson's use of the word "usufruct," the legal right of using and enjoying the fruits or profits of something belonging to another, is central to his point. For Jefferson, "the essence of the relationship between humans and the earth," in Richard Matthews's words, is "that of a trust, a guardianship, where the future takes priority over the present or past" (1995, 256). Initially skeptical, Madison, in time, came to hold a similar view (*ibid.*, 260). On the other side of the political spectrum, Edmund Burke, the founder of modern conservatism, arrived at a similar position. In his *Reflections on the Revolution in France* ([1790] 1986), Burke described the intergenerational obligation to pass on liberties "as an entailed inheritance derived to us from our forefathers, and to be transmitted to our posterity" (119). For Burke, society is "a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born" (*ibid.*, 195).

It is reasonable, given what we now know, to enlarge the concept of intergenerational debt to include intergenerational ecological debts including biotic impoverishment, soil loss, ugly and toxic landscapes, and unstable climate. It is entirely logical to believe that the right to life and liberty presumes that the bearers of those rights also have prior rights to the biological and ecological conditions on which life and liberty depend. If Jefferson were alive now he would, I think, agree wholeheartedly with that amendment. Similarly, Burke would agree that the entailed inheritance of institutions, laws, and customs must also be expanded to include its ecological foundations without which there can be no useable inheritance at all. This suggests a convergence of Left and Right around the idea that the legitimate interests of our children and future generations sets boundaries to present behavior and changes the character of the present generation from property holders with absolute ecological rights to trustees for those yet to be born. The echo of this tradition is sounded in our time in documents such as, the World Commission on Environment and Development report *Our Common Future*, which defines sustainable development as a way "to meet the needs and aspirations of the present without compromising the ability to meet those of the future" (1987, 40). Similarly, the "Earth Charter" aims, in part, to "transmit to future generations values, tradition, and institutions that support the longterm flourishing of Earth's human and ecological communities" (www.Earthcharter.org).

The extension of rights to some limits the freedom of others, thereby acknowledging that we live in a community and must be disciplined by the legitimate interests of every member of that community, now and in the future. Mesmerized by the industrial version of progress, we have been slow to recognize the revolutionary implications of that idea. But taken seriously, what do the ideas that children have standing to sue on behalf of the unborn or that certain ecological rights extend across time require of us? The answer is that we are required to follow the thread of obligations back to the economic and political conditions that affect children now and that will do so in the future. This requires, in

short, that we rethink political economy from the perspective of those who cannot speak on their own behalf.

The most obvious of the present conditions affecting children has to do with the distribution of wealth. It is an article of faith in the contemporary political economy that everyone has the right to amass as much wealth as they possibly can and that any single generation has the same right vis-a-vis subsequent generations. As a result the top 1 percent in the United States have greater financial net worth than the remaining 95 percent (Gates 2000, 79). Working-class families have watched their real income decline by 7 percent between 1973 and 1998, putting more pressure on children who receive, as Jeff Gates puts it, "less parenting from substantially more stressed parents" (ibid., 47). Despite the huge increase in wealth in the past half-century, one-fifth of American children still live in poverty (ibid., 69). To guarantee that every child has the basics of food, shelter, medical care, decent parenting, and education means that we must address basic problems of economic security for families. Because poverty and its effects are often self-perpetuating across generations, inequity casts a long shadow over the future.

Similarly, implicit in the political economy of capitalism is the faith that the prosperity of the present generation will flow into the future as a positive stream of wealth. Losses in natural capital, it is assumed, will be offset by increased wealth. It is clear, however, that a stream of liabilities--toxic waste dumps, depleted landscapes, biotic impoverishment, climate change--cannot be nullified because natural and economic capital are not always interchangeable (Costanza and Daly 1992). The intergenerational balance of economic capital created minus the natural capital lost may not be positive because the costs of repairing, restoring, or simply adjusting to a world of depleted natural capital will exceed the benefits of advanced technology, sprawling cities, and larger stock portfolios.

Second, the recognition of children's rights would require us to rethink the taboo subject of property ownership. From that perspective we are obliged to protect not only the big components of the biosphere but also the small places in which children live. Children need access to safe places, parks, and wild areas. This recognition would cause us more often to rebuild decaying urban areas, restore degraded places, preserve more open spaces and river corridors, build more parks, set limits to urban sprawl, and repair ruined industrial landscapes. But doing so would require changing our belief in the nearly absolute rights of the landowner supposedly derived from English philosopher John Locke. We need to reread John Locke with the interests of children and future generation in mind. In fact, Locke's case for private ownership carried the caveat that land ownership should be limited so that "there is enough and as good left in common for others" (Locke [1688] 1965, 329; see also Schrader-Frechette 1993). The rights of children and future generations run counter to notions of property, which give present owners the rights to do with land much as they please. At its most egregious, absentee corporations own land and subsurface mineral rights to large portions of Appalachia while paying minuscule taxes and practicing a kind of mining that decapitates entire mountains (Lockard 1998). Nothing in the law or current business ethics or mainstream economics would require them to give the slightest heed to the rights of the children living in those places or to those who will live there. Property rights, in a child-centered

political economy, will require that owners must leave "enough and as good" or forfeit ownership.

Third, what do the rights of children mean for the interpretation of other rights such as the First Amendment guarantee of freedom speech and press? From a child's point of view that freedom has been corrupted to allow corporations to target children through advertising, movies, and television programming. More fundamentally, it has been corrupted to protect the rights of property, not the rights of people, by allowing corporations the same legal standing as persons. A child-centered political economy would, I think, permit no such reading of the Constitution or violations of common sense. Freedom of speech was intended by the founders, not as a license, but as a fundamental protection of religious and political freedoms and should not be interpreted as a right to prey on children for any purpose whatsoever.

Perhaps most difficult of all, what do the rights of children mean for the development of technology? Neil Postman once asked whether "a culture [could] preserve humane values and create new ones by allowing modern technology the fullest possible authority to control its destiny" (1982, 145). We have good reason to believe that the answer is no. But the subject is virtually taboo in the United States. Biologist Robert Sinsheimer (1978, 33) once proposed to limit the rights of scientists where their freedom to investigate was "incompatible with the maintenance of other freedoms." His argument was met with a thundering silence. In a society much enamored of invention, he inconveniently asked whether the rights of the inventor to create risky and dangerous technologies exceeded the rights of society to a safe and humane environment. Nearly a quarter of a century later, computer software engineer Bill Joy raised the same question regarding the rapid advance in technologies with self replicating potential like genetic engineering, nanotechnologies, and robotics. In Joy's words, "we are being propelled into this new century with no plan, no control n~ brakes" (2000, 256). Like Sinsheimer, Joy proposed placing limits on the freedom to innovate; assuming that the rights of some to pursue wealth, fame, or simply their curiosity should not trump the rights of future generations to a decent and humane world. A child-centered political economy would begin with the right of the child and future generations, not with those of the scientist and inventor. It would put brakes on the rights of technological change and scientific research where those might incur large and irreversible risks.

Fifth, a child-centered political economy would give priority to democratically controlled communities over rights of finance capital and corporations--another taboo subject a series of decisions beginning with the *Dartmouth* College case and culminating in the 1886 *Santa Clara* case, the U.S. Supreme Court gave corporations the same protections give to individuals:

We live in the shadow of a super-species, a quasi-legal organism that competes with humans and other life-forms in order to grow and thrive. . . . It can "live" in many places simultaneously. It can change its body at will--shed an arm or a leg or even a head without harm. It can morph into a variety of new forms absorb other members of its species, or be absorbed itself. Most astoundingly, it can live forever. To remain

alive, it only needs to meet one condition: its income must exceed its expenditures over the long run. (Lasn and Liacas 2000, 41)

Corporations now rival or exceed the power and influence of nation-states. The largest 100 control 33 percent of the world's assets but employ only 1 percent of the world's labor (ibid.). They control trade, communications, agriculture, food processing, genetic materials, entertainment, housing, health care, transportation, and, not least, the political process. If there is anything left out of their control, it is because it is not profitable. Some routinely lie, steal, corrupt, and violate environmental laws with near impunity. As a consequence there is no safe future for children, nor are there safe communities in a world dominated by organizations that exist partly beyond the reach of law and owing no loyalty to anyone or to any place. The solutions are obvious. Corporations are chartered by the state and they can be dissolved by the state for just cause. We have implemented a "three strikes and you are out" standard for criminals; why not hold corporations and the people who serve them to the same standard? Wayne township in Pennsylvania, for example, bars any corporation with three or more regulatory violations within seven years. Many are asking for community control of investment capital and major assets. Nine midwestern states forbid corporate farm ownership. What attorney Michael Shuman (1998) calls "going local" requires a rejuvenation of democracy beginning by establishing local control over resources and investment decisions.

Finally, as farsighted and revolutionary as the decision of the Philippine court is, there is another and collateral right to be preserved, which is children's capacity to affiliate with nature and the places in which they live. Biologist Hugh Iltis describes that capacity thus: "Our eyes and ears, noses, brains, and bodies have all been shaped by nature. Would it not then be incredible indeed, if savannas and forest groves, flowers and animals, the multiplicity of environmental components to which our bodies were originally shaped, were not, at the very least, still important to us?" (quoted in Shepard 1998, 136). Harvard biologist E. O. Wilson calls this capacity "biophilia," which he defines as "the urge to affiliate with other forms of life" (1984, 85). "*We* are a biological species and will find little ultimate meaning apart from the remainder of life" (ibid., 81). Rachel Carson defined this capacity simply as "the sense of wonder" aided and abetted by "the companionship of at least one adult" (Carson [1956] 1984, 45).

Is the opportunity to develop biophilia and a sense of wonder important? Can it be considered a right? The answer to the first question is yes, because it is unlikely that we will want to preserve nature only for utilitarian reasons. We are likely to save only what we have first come to love. Without that affection, we are unlikely to care about the destruction of forests, the decline of biological diversity, or the destabilization of climate. To the second question the answer must again be affirmative because affiliation with nature, by whatever name, is an essential part of what makes us human. We have good reason to believe that human intelligence evolved in direct contact with animals, landscapes, wetlands, deserts, forests, night skies, seas, and rivers. We have reason to believe that "the potential for becoming as fully intelligent and mature as possible can be hindered and even mutilated by circumstances in which human congestion and ecological destitution limit the scope of experience" (Shepard 1998, 127). We can all agree that the act of deliberately crippling a child would violate basic rights. By the same token,

mutilation of a child's capacity to form what theologian Thomas Berry (2000, 15) calls "an intimate presence within meaningful universe," although harder to discern, is no less appalling because it would deprive the child of a vital dimension of experience.

According to Berry:

We initiate our children into an economic order based on exploitation of the natural life systems of the planet. To achieve this attitude we must first make our children unfeeling in their relation with the natural world.... For children to live only in contact with concrete and steel and wires and wheels and machines and computers and plastics, to seldom experience any primordial reality or even to see the stars at night, is a soul deprivation that diminishes the deepest of their human experiences. (2000, 15, 82)

The result of that deprivation is a kind of emotional and spiritual blindness to the larger context in which we live, abridging the sense of life.

Were we to take the right to a balanced and healthful ecology seriously, we would do all in our power to protect the right of children to develop a healthy kinship with the earth. We would honor the ancient tug of the Pleistocene in our genes by preserving opportunities for children to "soak in a place and [for] the adolescent and adult ... to return to that place--to ponder the visible substrate of his or her own personality" (Shepard 1996, 106). We would "find ways to let children roam beyond the pavement, to gain access to vegetation and earth that allows them to tunnel, climb, or even fall" (Nabhan and Trimble 1,994, 9). We would preserve the right to "the playful exploration of habitat ... as well as the gradual accumulation of an oral tradition about the land [that] have been essential to child development for over a million years" (ibid., 83). We would preserve wildness even in urban settings. This is not nature education as commonly understood. It is, rather, a larger subject of how and how carefully we manage the ecology of particular places to permit the full flowering of human potentials.

Conclusion

The invention of childhood in the late Middle Ages was a discovery, of sorts, that children were not simply miniature adults but were in a distinct stage of life with its own needs and developmental pattern (Aries 1962). This was more than a useful discovery; it was a fundamental acknowledgment that a decent culture needed to make a greater effort to shelter, nourish, and establish individual personhood than had previously been the case. We have good evidence from many sources that childhood as a distinct and protected phase of life is disappearing, and we have every reason to fear that loss. The primary cause is an errant system of political economy loosed on the world. It is failing children now and will in time fail catastrophically. Children will bear the brunt of that failure as well. Far from having settled all of the big political and economic issues, we have yet to create a political economy that protects the biosphere and the physical, mental, emotional, and spiritual well being of children and through them the future of our species. I hope we are at the beginning of what Thomas Berry calls the Ecozoic era, "when humans will be present to the Earth in a mutually enhancing manner" (2000, 55). For that hope to become manifest, we must first organize our political and economic affairs in a way that honors the rights of all children. The irony of our situation is that

what appears from our present vantage point to be altruism will, in time, come to be seen as merely practical, farsighted self-interest.

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