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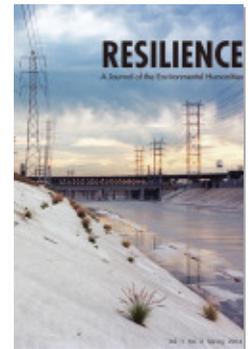
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Contaminated Children: Debating the Banality, Precarity, and  
Futurity of Chemical Safety

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# Contaminated Children

Debating the Banality, Precarity, and Futurity of Chemical Safety

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Toxic toys. Kids poisoned by lead. BPA in baby bottles. Daily headlines in the United States focus on the many ways children are contaminated every day. Given children's physical vulnerabilities, it is not surprising that contemporary controversy over toxic chemical policy in the United States is debated through children's bodies. Children also carry substantial symbolic weight as signifiers of the future and our ability to adapt. As Lawrence Grossberg points out, "Kids remind us that we can always change directions."<sup>1</sup> In order to suggest what they might tell us about how to define the word "resilience," this article examines the ways children are mobilized by the chemical industry and advocates for US toxic chemical legislation reform.

For environmentalists children long have played significant roles in our collective imaginaries and acts. Invocations of seven generations, Earth as an inheritance, and other popular environmental discourses call forth an appreciation for intergenerational rights and responsibilities. For those that believe in Gaia as Mother Earth, we all are positioned as children and, therefore, have an obligation to recognize our interdependence. Historically environmental movement leaders have been motivated by health concerns for their children, as well as the capacity for wonder and hope that many believe kids promise. Today environmental values are expressed through concerns over how much time children are spending in the woods, the complex nature of green marketing for baby registries, and awards to young environmental advocates as catalysts for social change. The list could go on.

Rhetorical scholars and cultural critics long have written about how corporate and grassroots discourses constitute environmental matters. Many of us have studied, for example, controversies surrounding greenwashing and pinkwashing in breast cancer philanthropy versus prevention, how environmental messages may or may not foster a paradigm shift, and the ways the ubiquity and presence of something in everyday life may act as a constraint to critique since we appear capable of becoming accustomed to almost anything.<sup>2</sup> Discourses overlap, obfuscate, clash, and reimagine human and nonhuman relations, or what Donna Haraway calls technoculture “worlding.”<sup>3</sup> Scholars of sustainability discourses also have argued that the ambiguity of the term “sustainability” itself in rhetorics of governments, NGOs, corporations, and everyday people both enable popularity and constrain the viability of the term to enable meaningful change at the intersections of environmental, economic, and human relations.<sup>4</sup>

It therefore is prudent, as the popularity of resilience grows across disciplines and various spheres of public life, that we pay careful attention to the ways the concept is being mobilized implicitly and explicitly by a range of voices.

Anthropologist Kim Fortun concurs: Cultural analysts need to track the emergence and circulation of new corporate language games—what Benson and Kirsch call “corporate oxymorons”—seeking to understand how they shift the parameters and dynamics of dialogue, and how problems are recognized or not. As important is attention to what disaster theorists call vulnerability and resilience. . . . How these concepts come to be defined in the coming years will dramatically shape policy and life chances.<sup>5</sup>

Contemporary toxic pollution and responses to it pose a significant conjuncture through which to better understand how nascent and divergent understandings of resilience are emerging.

As a contribution to resilience studies, this article will analyze antagonistic discourses about what children both help and fail to remind us. Herein I provide a brief background about scholarly concern over the productivity of focusing on children in advocacy and cultural theory, including the argument that resilience is ordinary in children. I offer a succinct summary of US toxic chemical policy norms, and analyze two websites that illustrate the primary competing discourses on contempo-

rary policy to identify the rhetorical patterns at play. To conclude I revisit how children, futurity, and agency are imagined in relation to toxic chemicals to establish that we do not need more appeals to resilience, but ways to evaluate whether or not any particular articulation of resilience fosters more just relations for life on Earth.

### Children, Futurity, and Ordinary Magic

Lee Edelman argues that a politics that is future oriented is overrated, particularly as it often is embodied by the image of the presumably innocent, pure child and a desire for a compulsory hetero-reproductive future. Of particular concern to him is when certain political discourses articulate or link themselves with a particular imagination of children and family values to attempt to preclude political debate (e.g., “We’re fighting for the children. Whose side are you on?”).<sup>6</sup> Edelman observes that both pro-choice and pro-life advocates alike invoke children. Given his perception that there is an increased lack of distinction between the values promoted by these two perspectives, Edelman argues queer theorists and pro-choice advocates should abandon rhetorical appeals to the future and children.<sup>7</sup>

In contrast Lawrence Grossberg calls us to recognize the significance of futurity to the political consequences of our work.<sup>8</sup> Grossberg’s research on kids, for example, emphasizes that although US culture might fetishize children as emblematic symbols of the future, we increasingly have demonized their tastes, defunded their schools, and criminalized their actions; therefore the cultural romanticization of the futurity of children by some should not deflect our attention away from the simultaneous reality that we currently are in an historical period of systematically attacking children’s lives, education, and values in the present.<sup>9</sup> Ample evidence suggests that children remain a contested signifier in US public culture. As such we would do well to consider how children and the future are imagined by agonistic causes to assess what the overlap and differences tell us about the rhetorical values at stake. Toxic chemical reform controversy provides one compelling way to show the elasticity of children’s roles in animating future desires and to explore whether appeals to children necessarily preclude political critique.

Given the interconnectedness of futurity and children, it is perhaps not surprising that resilience studies offers a rich framework with which to engage the study of children and that it long has drawn in-

spiration from children. Although popular news headlines sometimes take up this research as focusing on the elasticity of so-called superkids, Ann Masten has argued in her essay “Ordinary Magic” that quite the opposite has been found. “The great surprise of resilience research,” she writes, “is the ordinariness of the phenomena.”<sup>10</sup> Her research suggests that those of us invested in studying resilience should move beyond established findings and ask this: Which iterations of resilience do we wish to embrace or to resist?

One way for environmental humanities scholars to reflect on our answer to this question is to study competing perspectives on toxic chemical policy. I want to offer a brief policy context for the debate.

### Toxic Soup and the Myth of the Average Adult Male

In response to the chemical revolution, the 1976 Toxic Substances Control Act (TSCA) was passed in the United States. Advocates hoping to reform this legislation are not attempting to outlaw all chemicals (as if that were possible), to demonize all chemicals (Who doesn't love H<sub>2</sub>O?), or to damn the entire chemical industry (many environmentalists, for example, are quite excited about green chemistry innovations such as solar panels). Rather, as the name suggests, TSCA and questions of the need to reform it are focused on when chemicals are categorized as toxic or capable of causing injury, illness, or death—such as detrimental exposures to lead, asbestos, radon, or polychlorinated biphenyls.

Even if TSCA was the best policy for its time, the chemical industry has increased production dramatically since 1976. In 2014 more than eighty thousand chemicals are produced by humans and sold in the United States. As Linda Birnbaum, the toxicologist who heads the National Institute of Environmental Health Services and the National Toxicology Program, notes in *Scientific American*, “we live in a soup of chemicals and we live in a soup of exposures.”<sup>11</sup> Toxics, therefore, persist as both extraordinary signifiers of precarity and ordinary elements in our everyday lives.<sup>12</sup>

Assessing the impact is part of the current controversy. A basic formula of toxicology used to assess risk is exposure plus hazard, assuming, as the adage goes, that the dose is the poison. At minimum a key element missing from that equation is the body exposed. As chemical industry and environmental health advocates both agree, children are



Fig. 1. In 1976 Apple computers also were launched. This is what they looked like. Technology has changed since then. Photograph by Flickr user rebepilot, Wikimedia Commons, June 10, 2005, [http://upload.wikimedia.org/wikipedia/commons/2/27/Apple\\_I.jpg](http://upload.wikimedia.org/wikipedia/commons/2/27/Apple_I.jpg).

affected differently than adults due to size and habits (such as teething). Yet TSCA standards are androcentric, based on the average adult male. Perpetuating the myth of a universal corporeal norm, no distinction for dose is made based on age, weight, sex, and so forth. There also currently is no aggregate standard—that is, each dose is evaluated in isolation, despite the fact that we are exposed to thousands in combination on a daily basis.<sup>13</sup>

### To Reform or Not to Reform

In 2012, after seven years of actively trying to instigate national legislative action, the now late senator Frank Lautenberg successfully helped bring about the first Senate Committee vote on toxic chemical reform since 1976. Currently efforts are being made at the national and state levels of government to reform this legislation, including a fraught industry-backed bill called the Safe Chemicals Act. Given what appear

to be irreconcilable differences in two distinct approaches to reform, we appear stalled at the national level once again.

To illustrate how both sides are mobilizing children in their discourses, I focus first on an anti-reform website and then on a pro-reform website. These sites are worthy of our attention because they are paid for and constructed by the two primary coalitions that are actively engaged in the larger debate over toxic chemical reform, they offer competing perspectives for purposes of juxtaposition, and they address toxic chemical concerns in the United States through the same genre (that is, a website). Acknowledging concerns over chemical ubiquity in the lives of children, the chemical industry dismisses collective critique in an attempt to deflect attention elsewhere. Environmental health advocates counter that the massive amount of unregulated or underregulated chemicals to which we are exposed every day places children and adults more vulnerable for a range of public health impacts. In response they attempt to interpellate parents into a broadly defined multi-issue-based grassroots coalition with a perceived sense of exigency to reform TSCA.

*“Is My Child Safe?”*<sup>14</sup>

The KIDS + CHEMICAL SAFETY website was launched in December 2012, a sign that perhaps grassroots efforts to reform US chemical legislation were building enough momentum to warrant spending more time and money on a new public relations effort. Toxicology Excellence for Risk Assessment (TERA), a nonprofit established by the American Chemistry Council, developed the site. They also receive funding from the Harvard Superfund Research Program and the Alliance for Risk Assessment and are subsidized by government entities (the National Science Foundation and the Combined Federal Campaign). Almost as soon as it was launched, the website was critiqued as a greenwashing tactic, one that appears to be invested in green or environmental values, but actually serves as a way to deter legislation that would improve environmental health.<sup>15</sup>

Seemingly less concerned about legislation, since it is not mentioned once on the website, the American Chemistry Council repeatedly has stated elsewhere that the crisis we face is one of confidence. They have argued for decades that the primary problem with toxic chemical legis-

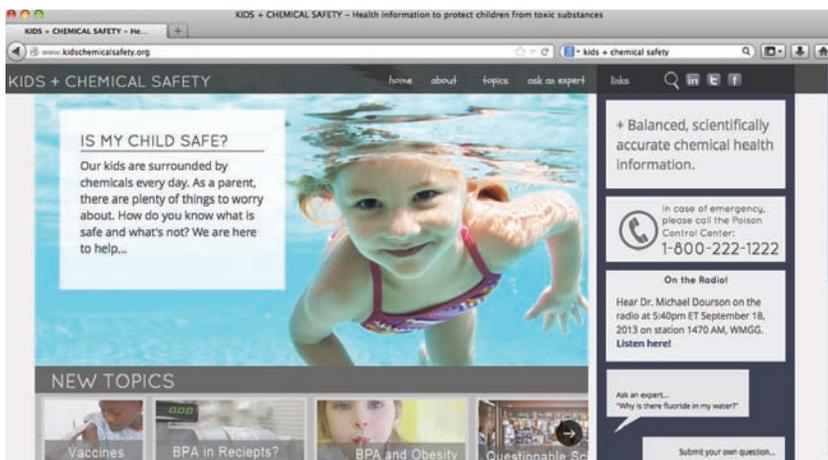


Fig. 2. *tera* acknowledges we are worried—or at least parents of small children are. Screenshot from KIDS + CHEMICAL SAFETY website, December 3, 2013.

lation in the United States is that everyday people have lost faith or trust in their industry to produce the best products and in the government to protect everyday people: “While the law created a robust system of regulations, over time, confidence in EPA’s [the US Environmental Protection Agency’s] regulation of chemicals has eroded.”<sup>16</sup> Even when the American Chemistry Council claims to support reform, confidence remains at the forefront of their motives: “Congress must modernize TSCA to ensure product safety and consumer confidence.”<sup>17</sup>

According to Kim Fortun, the American Chemistry Council’s 2005 essential2life public relations campaign focused upon disavowal as its primary communication strategy. That is, she argues, they refused to admit connections between chemicals and environmental degradation.<sup>18</sup> The website this essay focuses on has abandoned that approach.

Aesthetically the KIDS + CHEMICAL SAFETY website is appealing. On a backdrop of gray with black font, the texts are readable (sometimes evoking children’s handwriting, and also attempting to be readable to a lay audience), a range of races and ethnicities are depicted in the colorful pictures of young boys and girls engaged in various forms of play, and I find the links are easy to navigate.<sup>19</sup>

The KIDS + CHEMICAL SAFETY website claims to offer information so that everyday people can better assess which chemical controversies we should be anxious about. From the homepage to the mission



Fig. 3. Toxic chemicals pervade every facet of life. Children are particularly susceptible to toxins. Screenshot from KIDS + CHEMICAL SAFETY website, May 15, 2014.

and issue links, the audience presumed is a worried parent. An excerpt from the initial homepage banner is illustrative:

Our kids are surrounded by chemicals every day. As a parent, there are plenty of things to worry about. How do you know what is safe and what's not? We are here to help. Kids + Chemicals strives to be your best source of balanced, scientifically accurate chemical health information. We will alert you to the latest chemical-related health concerns, but also let you know when you can relax.

Here one can identify two of the three major rhetorical moves of the website: acknowledge (kids are surrounded, chemicals are banal, parents are anxious, and there are questions) and dismiss (we will warn you, so you can relax). When addressing a chemical controversy, the site also deflects attention toward other worries; therefore, tellingly, they do not attempt to eradicate parental concerns, but to channel them elsewhere.

Addressing arsenic in rice is quite appropriate as a contemporary synecdoche of controversy over toxic chemicals in our everyday lives.

In September 2012, there was a barrage of news stories about the human health risks of arsenic in rice. It is a compelling headline because it juxtaposes the commonly understood poison of arsenic with an everyday food item that most people eat. The controversy was not sparked by an environmental health group but by *Consumer Reports* and the Food and Drug Administration (FDA). It then was picked up by the popular television personality Dr. Oz, who, having been to this rodeo before with apple juice and other food items, advocated Americans use precaution immediately and not wait for official guidelines to be released.

How does the KIDS + CHEMICAL SAFETY website respond? P. Michael Bolger, PhD, DABT, noted as a retired board certified toxicologist and food and drug administrator, provides their statement. The following are the three fundamental rhetorical strategies Bolger offers: acknowledge, dismiss, and deflect.

#### 1. ACKNOWLEDGE

To mitigate feelings of anxiety, Bolger repeatedly notes that arsenic is a natural chemical in the world. Acknowledging this fact allows the industry to shirk any accountability and to imply that there is no reasonable expectation for a toxic-free world. Such an appeal to nature is considered a logical fallacy since something being natural—taken here to mean of origins exceeding human invention—does not necessarily mean it is good. (Death is a natural stage of the life cycle, for example, yet it is not necessarily appealing to most of us.)

Instead of categorically disavowing a crisis, however, Bolger admits “releases of arsenic from anthropogenic (human-made) sources, including mining and smelting, pesticide application and waste incineration have contributed to environmental burdens.” He also acknowledges that arsenic could be a valid cause for alarm: he acknowledges we have known high doses of arsenic could kill people since ancient times; he acknowledges it is still not great in medium doses; and he again acknowledges arsenic in long-term oral doses remains cause for alarm. Further, he acknowledges that rice is particularly susceptible to absorbing arsenic since it absorbs it more readily via water and soil. These concessions serve to recognize their opposition’s concerns before moving on to rebut them.

## 2. DISMISS

Bolger reassures his audience that if a real crisis existed, we would have legislation banning rice. He notes that the FDA is testing over a thousand samples and then will perform a risk assessment before making any recommendation. Since we do not have legislating banning rice, it is a nonissue. He advises that we should not change our lifestyles until the federal government confirms we should act: “Thus, while continued evaluation is certainly warranted, the low levels of inorganic arsenic found in rice are not anticipated to be a health concern.” This response enables what I call a latent exigence, marking a situation with a sense of urgency not to act now, but in the undefined, constantly deferrable future.<sup>20</sup> What is significant about this turn in Bolger’s argument, and others like it, is that it defers a structural response in the present to civically engage toxic chemical legislation or even to boycott the consumption of rice; it also creates the conditions of possibility to return the neoliberal focus on compulsory consumption.

## 3. DEFLECT

Bolger then concludes with a cost-benefit analysis of eliminating rice from our diet, which changes the subject of the argument from chemical reform to parenting choices. Rather than worry about arsenic, he suggests, we should consider how important rice is for our children: “For example, infant rice cereal has been recommended by physicians for many years because it is gluten-free, hypoallergenic, easily digested and is a good source of iron and other vitamins. It is also important to keep in mind that there are significant nutritional risks associated with any abrupt change in dietary habits.” Although laws will protect us from toxins, Bolger warns us to be diligent about how we feed ourselves and especially our children in order to avoid allergies, digest well, and so forth.

When addressing fumes from or lead in toys, the risks and benefits of flame retardants, the downside of fluoride, whether or not endocrine disruption is making it harder to have children, or any of the other many timely topics about exposure to toxins in our everyday lives, the rhetorical moves of the KIDS + CHEMICAL SAFETY website linking children with environmental health concerns are repeated: acknowledge, dismiss, and deflect. Throughout we are invited to believe in government regulations, to read labels for any information we may desire, and to shop wisely—but never once to lobby for structural changes.

*“I Stand with Kids: Not Big Chemical!”*<sup>21</sup>

There are many websites worth studying on the topic of children and toxic legislation reform.<sup>22</sup> I have chosen the Safer Chemicals, Healthy Families website for this essay because it solely focuses on the Safe Chemicals Act. Safer Chemicals, Healthy Families also represents over eleven million people with broad support provided by 450 related advocacy interests. Without listing them all here, it is significant to note that they include but exceed a singular focus on children, despite invoking the word “families” in the name of the coalition. Allies include public health organizations such as Breast Cancer Action; healthcare providers and institutions, including Health Care Without Harm and many chapters of Physicians for Social Responsibility; nursing organizations; learning and developmental disabilities organizations, including Autism Speaks and Children and Adults with Attention Deficit Disorder; labor organizations, including the United Auto Workers and United Steelworkers; national environmental organizations, including the Center for Health, Environment, and Justice, Earthjustice, Greenpeace, the Natural Resources Defense Council, the Sierra Club, the Union of Concerned Scientists, and us Public Interest Research Group; environmental justice organizations from the Just Transition Alliance in California to the Indigenous Environmental Network in Minnesota to WE ACT for Environmental Justice in New York; bloggers, including Kathy Scoleri at the Safe Mama and Rachel Sarnoff at Healthy Child, Healthy World; parent organizations, including Moms Clean Air Force and Moms Rising; reproductive health organizations, including Asian Communities for Reproductive Justice, National Latina Institute for Reproductive Health, and the Planned Parenthood Federation of America; state advocacy and community organizations from the Basel Action Network in Washington to the NJ Work Environment Council in New Jersey; and businesses and analysts, including Seventh Generation and Stonyfield Farm.

The Safer Chemicals, Healthy Families website questions the efficacy of TSCA along three lines: (1) the law in 1976 grandfathered over sixty thousand chemicals without testing as a compromise to get the legislation passed; (2) since 1976, EPA only has regulated five chemicals; and (3) since 1976, EPA only has tested about two hundred chemicals.<sup>23</sup> The website also emphasizes that the stakes for human health are high. Based on studies from the Environmental Law Review, the US Environ-

mental Protection Agency, the Journal of the National Cancer Institute, and more, Safer Chemicals, Healthy Families summarizes six chronic illness trends believed to be linked, at least in part, to toxic chemical exposure:

Leukemia, brain cancer, and other childhood cancers have increased by more than 20 percent since 1975.

Breast cancer went up by 40 percent between 1973 and 1998. Although breast cancer rates have declined since 2003, a woman's lifetime risk of breast cancer is now 1 in 8, up from 1 in 10 in 1973.

Asthma prevalence approximately doubled between 1980 and 1995 and has stayed at the elevated rate.

Difficulty in conceiving and maintaining a pregnancy affected 40 percent more women in 2002 than in 1982. The incidence of reported difficulty has almost doubled in younger women ages eighteen to twenty-five.

The birth defect resulting in undescended testes has increased 200 percent between 1970 and 1993.

Since the early 1990s, reported cases of autism spectrum disorder have increased tenfold.<sup>24</sup>

Statistical arguments such as this often indicate a desire to emphasize a preponderance of limits rather than a specific narrative; this rhetorical choice suggests the website's goal is to broaden support, not to narrow one's focus.

Aesthetically the Safer Chemicals, Healthy Families website is relatively basic, on a white backdrop of black basic fonts.<sup>25</sup> Most pages consist solely of text and links to PDFs of bills or fact sheets. A few pages circulate colorful images of smiling young boys and girls wearing a backpack, holding a ball, and so on, representing a range of races and ethnicities, although they appear more likely to show images of adults holding a child, wearing a medical uniform, on appearing the red carpet (in the case of celebrity endorsements).

In response to these loopholes and health crises the coalition promotes the Safe Chemicals Act to ban the most hazardous chemicals, bioaccumulative toxicants; provide right-to-know information; use the National Academy of Sciences' risk assessment reform for the EPA regarding biomonitoring; hold industry accountable for proving safety



Fig. 4. Safer Chemicals, Healthy Families acknowledges we want change—or at least families do. Screenshot from Safer Chemicals, Healthy Families website, December 3, 2013.

before use, as pharmaceuticals are required to do; enhance government coordination; promote safer alternatives, such as green chemistry, when possible; and protect people who are most vulnerable (including children, workers, and pregnant women), as well as disproportionately affected (including people of color and those with lower incomes). This website is decidedly promoting civic responses to what they claim is broadly supported and long overdue reform. Again children are a constituency with which we should have solidarity due to their vulnerability, but not the sole focus.

The Safer Chemicals, Healthy Families website lists what the act would do, a list of co-sponsors, and a press release, with links to the 2013 Senate Bill, the 2013 Senate Bill Summary, Frank Lautenberg's press release, a fact sheet, and how it addresses TSCA's "major flaws."<sup>26</sup> My brief analysis for the sake of comparability will focus on the pages linked to "What would the Safe Chemicals Act do?" In 2013 the pages still linked to a 2011 two-page fact sheet.<sup>27</sup> Given this 2011 fact sheet was included with the otherwise up-to-date 2013 campaign information, one might assume this fact sheet remained because the coalition believed it still was salient. The fact sheet also reflects the mission points made elsewhere on the website deflecting analysis of specific chemicals and re-

lated practices to focus attention instead on two broader tasks: defining the audience and fostering critique.

### 1. DEFINING THE AUDIENCE

Photographs frame the fact sheet, with three on the header of the first page and one on the footer of the second. Although toxins are invisible to the naked eye, the four images suggest how they might permeate everyday life: a tan, brunette mother breastfeeding her tan, brunette child; a black male doctor smiling and holding a concerned-looking blond white boy; a closeup of the torso of a woman cleaning with a plastic spray bottle and latex gloves; and a dozen kids (mostly appearing to be white) hanging out on a pier under blue skies, some with and some without fishing rods.<sup>28</sup> Through these images, chemical safety is implicated, at a minimum, in what mothers pass on to children through their bodies, why children might need medical attention, a part of cleaning, and a threat to children (by making otherwise romantic summer days on a dock appear like a potential threat through the fish they might catch in the water).

Based on the images alone the audience for this fact sheet, then, might also be assumed to be parents, particularly mothers, worried



The Safer Chemicals, Healthy Families coalition includes nurses, parents, advocates for the learning disabled, scientists, environmental health advocates, and concerned citizens from across the nation. These diverse groups are united by their common concern about toxic chemicals in our homes, places of work, and products we use every day.

[www.SaferChemicals.org](http://www.SaferChemicals.org)

Fig. 5. Toxic chemicals pervade every facet of life. Children are particularly susceptible to toxins. Image from Safer Chemicals, Healthy Families website, May 1, 2013.

about their ability to protect their children's health—or at least people who care about kids and cleaning. Yet, juxtaposed with the text, the coalition maps a much more systemic set of problems that speak to more inclusive agenda setting. To establish exigency for their campaign goal, for example, they focus on anthropocentric “diseases like asthma, diabetes, childhood cancers, infertility, and learning and behavioral disorders.” Notably children are highlighted in relation to cancer and possibly implied in the discussion of disorders, but kids and their caretakers are not the sole audience of this website. The audience appears to be those that might influence politicians: everyday people who are affected by toxic pollution in banal and ubiquitous ways.

## 2. FOSTERING CRITIQUE

The text continues to broaden the issues at stake and to establish a sense of exigency for political critique. The opening preamble emphasizes that TSCA is “badly broken” because it was inadequate in 1976 and is even more out-of-date today, in that it fails to protect the environment, public health, and our families—as if they were not part of public health. The subheadings reinforce the coalition's overall goal by identifying a range of objectives that could be solved through this legislation: it “improves chemical safety” through sharing information and banning the most hazardous chemicals; “protects our health using the best science,” with a robust sense of “our”; provides a right-to-know; “protects communities disproportionately affected”; and “help[s] American manufacturers and workers compete” by rewarding innovation and meeting consumer demands for safer products. By stipulating these objectives the campaign links human health with science, state governance, oppression, and political economic relations.

Implicitly the fact sheet is a response to the tensions that have emerged from perceived possibilities and constraints of the campaign's rhetorical situation: Who are the experts on chemical safety? What is the best scientific approach? Should corporate and government information about toxic chemicals be defended as a civil right or as a trade secret? Why do we continue to justify our worst polluting practices by disproportionately burdening people of color? And how will these changes affect an economy already perceived to be weak?

## Conclusions: The Future is Not Pure, But It Does Have Limits

The status of children in the United States is ambiguous. For some people children signify innocence and wonder, but annoyance and threats for others. Yet children remain a telling building block for how we imagine futurity and, therefore, human resilience.

Both the KIDS + CHEMICAL SAFETY and the Safer Chemicals, Healthy Families websites appear to recognize a collective imaginary in the United States related to toxic chemicals is at least in part animated by the precarity of children's everyday lives. This collective sense of permeability, vulnerability, and banality seems to be the common ground of both advocates against and for legislative reform.

Tellingly these two coalitions diverge in the routes of resiliency they offer. KIDS + CHEMICAL SAFETY suggests that although we might feel at risk, our government has what one might call a "resilient system" in place to test chemical safety. We are encouraged to imagine ourselves as parents who can make consumer choices based on the product labels provided to us. It is implied that our lack of confidence in the chemical industry is our greatest liability. In contrast Safer Chemicals, Healthy Families defines a heterogeneous audience and fosters an exigency for critique—claiming human, democratic, and economic health will require national legislative reform for us to thrive as people, citizens, and workers. Children are our allies in this struggle, but they are not the beginning or the end of chemical reactions worth our attention. These divergent perspectives might be predictable without studying the websites, but it is how they help us articulate resilience that most interests me.

Resilience is about survival despite the odds. TERA is promoting a realistic sense of resilience that reminds us we all are impure today. Chemicals make up the air we breathe, water we drink, food we eat, and bodies we inhabit. Man-made chemicals also do pervade every part of our life, including computer screens and clothing. Over eighty thousand of these chemicals are considered toxic, but at what levels and frequencies remains uncertain to most of us since these chemicals largely are unregulated. TERA wants to maintain that status quo. I do not reject their perspective just because they make profit from it, although they do. Instead I am concerned that absent from their implicit understanding of resilience is a meaningful articulation of limits.<sup>29</sup> Consider what is now popular advice on building resilience in children: don't hover and don't worry about protection, because children will learn from mis-

takes, improving social skills, school work, or whatever they are working on and their broader ability to handle the hard truth that life is challenging—people can be mean, we aren't all equally adept at everything we do, and so on. As a September 2013 piece published in *Better Homes and Gardens* offered as a teaser to an article on parenting tips on how to build resilience, “Want to raise a smart, confident, capable child? Give him room to take risks, make mistakes, and learn how to bounce back.”<sup>30</sup> In a moment when educational reform in the United States continues to push efficiency and test scores over a host of other values, such as creative experimentation and critical thinking, this advice to help foster resilience in children feels quite timely and worthwhile. Yet sometimes adults also should worry about and stand up for children before irreparable harm is done. For example, if a child is being sexually, emotionally, or physically abused, adults should not sit back and ignore their responsibility to protect children from these “risks” that, of course, can broaden one's horizon and help to build resilience. Ideally there should be limits to what will test our ability to bounce back. Ethically adults should question and intervene at times when children are bearing the brunt of other people's mistakes. We should assert the right to hope children are able to avoid certain violations, even as we know these traumatic possibilities exist. Similar to building resilience skills as parenting advice, acknowledging the desire for survival and the pervasiveness of toxic pollution is timely and worthwhile. A pure, toxin-free environment is an impossible goal when there are some detectable levels of toxins everywhere and in everyone. We need to adapt our lives and attitudes accordingly. Nevertheless I believe we also need to become more adept at identifying our limits in relation to the toxic pollution for which we did not offer our consent. What are the signs of abuse? How much is too much? When is a low dose an unacceptable violation? Which substances so radically transform what it means to be human that we cannot afford to sit back? Who will help legitimize our right to say no? Which voices and bodies are being privileged or silenced in these profound decisions?

Responding to such questions should goad us out of narrower enclaves into broader coalitions that include but are not restricted to political critiques of toxic impacts on children. It is my hope that the banality of resilience may become politicized not merely through worry over the precarity of the smallest among us, but with the belief that all

of our impure lives are inextricably intertwined. In the environmental humanities resilience should not just be concerned with bouncing back, but also learning our limits and avoiding precarious futures when possible.

#### ABOUT THE AUTHOR

*Phaedra C. Pezzullo* currently is associate professor in the Department of Communication and Culture and an adjunct faculty member of the Cultural Studies Program and the American Studies Department at Indiana University Bloomington. This article is an abbreviated version of a longer book manuscript about limits, toxic bodies, sex, and environmental justice.

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1. Lawrence Grossberg, *Caught in the Crossfire: Kids, Politics, and America's Future* (New York: Paradigm, 2005), 308.

2. Phaedra C. Pezzullo, "Resisting 'National Breast Cancer Awareness Month': The Rhetoric of Counterpublics and their Cultural Performances," *Quarterly Journal of Speech* 89, no. 4 (November 2003): 345–65; Phaedra C. Pezzullo, *Toxic Tourism: Rhetorics of Travel, Pollution, and Environmental Justice* (Tuscaloosa: University of Alabama Press, 2007); Phaedra C. Pezzullo, "'This Is the Only Tour That Sells': Tourism, Disaster, and National Identity in New Orleans," *Journal of Tourism and Cultural Change* 7, no. 2 (June 2009): 99–114; Phaedra C. Pezzullo, "Contextualizing Boycotts and Buycotts: The Impure Politics of Consumer-Based Advocacy in an Age of Global Ecological Crises," *Communication and Critical/Cultural Studies* 8, no. 2 (June 2011): 124–45; Karl R. Smerecnik and Valerie R. Renegar, "Capitalistic Agency: The rhetoric of BP's Helios Power Campaign," *Environmental Communication* 4, no. 2 (June 2010): 152–71; Annie Leonard, 2013, "The Story of Solutions," The Story of Stuff Project website, <http://storyofstuff.org>; Phaedra C. Pezzullo and Stephen P. Depoe, "Everyday Life and Death in a Nuclear World: Stories from Fernald," In *Public Modalities: Rhetoric, Culture, Media, and the Shape of Public Life*, ed. Daniel C. Brouwer and Robert Asen (Tuscaloosa: University of Alabama Press, 2010), 85–108.

3. Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 92.

4. See, for example, Tarla Rai Peterson, *Sharing the Earth: The Rhetoric of Sustainable Development* (Columbia: University of South Carolina Press, 1997); Markus Nils Peterson, Markus John Peterson, and Tarla Rai Peterson, "Moving Toward Sustainability: Integrating Social Practice and Material Processes," in *Environmental Justice and Environmentalism: The Social Justice Challenge to the Environmental Movement*, ed. Ronald Sandler and Phaedra C. Pezzullo (Cambridge MA: MIT Press, 2007), 189–221; Julian Agyeman, *Sustainable Communities and the Challenge of Environmental Justice* (New York: New York University Press, 2005).

5. Kim Fortun, “essential2life,” *Dialectical Anthropology* 34, no. 1 (March 2010): 77–86, quotation on 84.

6. Lee Edelman, *No Future: Queer Theory and the Death Drive* (Durham NC: Duke University Press, 2004), 2.

7. Although this is not the focus of this article, I believe we cannot concede children and families to heterosexuality, as if queers have no parents or children. As José Esteban Muñoz persuasively argued, a desire to fetishize the present is racially privileged since those who bear the brunt of current social injustices have no desire to embrace the present as our political ideal (*Cruising Utopia: The Then and There of Queer Futurity* [New York: New York University Press, 2009]). Furthermore, Judith Halberstam contends it unnecessarily restricts a smaller archive of relevance and risks linking queer theory solely with gay men without children (*The Queer Art of Failure* [Durham NC: Duke University Press, 2011], 109, 118).

8. Lawrence Grossberg, *Cultural Studies in the Future Tense* (Durham NC: Duke University Press, 2010).

9. Grossberg, *Caught in the Crossfire*.

10. Ann S. Masten, “Ordinary Magic: Resilience Processes in Development,” *American Psychologist* 6, no. 3 (March 2001): 227–38, quotation on 227.

11. Brendan Borrell, “Chemical ‘Soup’ Clouds Connection between Toxins and Poor Health (interview with Linda Birnbaum),” *Scientific American*, November 23, 2012, <http://www.scientificamerican.com/article.cfm?id=birnbaum-government-toxicologist-qa>. This characterization also is highlighted in *Toxic Soup: The Politics of Pollution*, directed by Rory Owen Delaney (Los Angeles: Man Bites Dog Films, 2010), DVD.

12. For an elaboration of this argument, see Pezzullo, *Toxic Tourism*.

13. Dina ElBoghdady, “At Senate Hearing, Trade Groups Split over Efforts to Revamp Chemical-Safety Law,” *The Washington Post*, November 17, 2011, [http://www.washingtonpost.com/business/economy/at-senate-hearing-trade-groups-split-over-efforts-to-ravamp-chemical-safety-law/2011/11/17/gIQArxU9VN\\_story.html](http://www.washingtonpost.com/business/economy/at-senate-hearing-trade-groups-split-over-efforts-to-ravamp-chemical-safety-law/2011/11/17/gIQArxU9VN_story.html). As I explained at a public talk recently, to appreciate how single-dose toxicity testing is incomplete, consider how we judge the impact of alcohol: by weight, sex, period of time one has been drinking, depending on what or how much one has eaten, presence of other drugs in one’s body, and so forth.

14. All direct quotations are from TERA, KIDS + CHEMICAL SAFETY, accessed May 1, 2013, <http://www.kidschemicalsafety.org>.

15. See, for example, Lindsay Dahl, “Fool Me Once, Shame on You,” Safer Chemicals, Healthy Families blog, December 19, 2012, <http://blog.saferchemicals.org/2012/12/fool-me-once-shame-on-you.html>; Richard Denison, “Chemicals R Us: New ACC-Sponsored Website Says Chemicals Are Safe and Fun for Kids!” Environmental Defense Fund website, December 19, 2012, <http://blogs.edf.org/nanotechnology/2012/12/19/chemicals-r-us-new-acc-sponsored-website-says-chemicals-are-safe-and-fun-for-kids>.

16. American Chemistry Council, “TSCA Modernization,” American Chemistry

Council website, accessed May 1, 2013, <http://www.americanchemistry.com/Policy/Chemical-Safety/TSCA?gclid=CKLFu4Kui7UCFa5AMgod4FAAig>.

17. American Chemistry Council, "TSCA Modernization." Most reform advocates find ACC claims to support reform disingenuous. See, for example, Andy Igrejas, "Outlook for Chemical Reform Bright," Safer Chemicals, Healthy Families blog, November 16, 2012, <http://blog.saferchemicals.org/2012/11/outlook-for-chemical-reform-is-bright.html>; and Richard Denison, "Why Can't ACC Tell the Truth about the Safe Chemicals Act?," Environmental Defense Fund website, May 6, 2013, <http://blogs.edf.org/nanotechnology/2013/05/06/why-cant-acc-tell-the-truth-about-the-safe-chemicals-act>.

18. Fortun notes changes in DuPont's public relation strategy: in the 1930s, there was a shift from "powder" to "peace" and in the 1990s came a focus on "the miracles of science." Harkening back to its 1930s frame with a "modern" focus on inventions instead of building blocks of life, essential2life was launched in 2005. See also: American Chemistry Council, "American Chemistry Council Unveils New Public Education Campaign; American Chemistry Council Highlights How Chemistry is essential2life," Press release on *Business Wire*, September 22, 2005, <http://www.businesswire.com/news/home/20050923005505/en/American-Chemistry-Council-Unveils-Public-Education-Campaign>.

19. However, a web accessibility evaluation suggests many impediments to the site's accessibility (WebAIM [Web Accessibility in Mind], accessed May 1, 2013, <http://wave.webaim.org>).

20. Phaedra C. Pezzullo, "Performing Critical Interruptions: Rhetorical Invention and Narratives of the Environmental Justice Movement," *Western Journal of Communication* 64, no. 1 (Winter 2001): 1–25, quotation on 10.

21. Lindsay Dahl, "Stand Up for Kids, Not Big Chemical!" Safer Chemicals, Healthy Families blog, October 23, 2012, <http://www.saferchemicals.org/2012/10/23/stand-up-for-kids-not-big-chemical>.

22. CHEJ (Citizens Health and Environmental Justice) and EWG (Environmental Working Group), in particular, have notable ongoing and longstanding campaigns to protect the health of children and provide information regarding toxic chemicals on human health. CHEJ is a member of the Safer Chemicals, Healthy Families coalition.

23. These facts are commonly cited through chemical legislation reform discourse. For one source, see Safer Chemicals, Healthy Families, "Toxic Chemicals: The Cost to Our Health," accessed May 1, 2013, <http://www.saferchemicals.org/resources/health.html>.

24. Safer Chemicals, Healthy Families, "Chemicals and Our Health: Why Recent Science Is a Call to Action," Report PDF, July 2012, <http://saferchemicals.org/pdf/intro-health-report.pdf>. Although disproportionate impacts are noted throughout their website and literature, they do not note them here. For statistics on how People of Color continue to disproportionately carry the impact of our current approach to toxic chemicals, see Robert D. Bullard, Paul Mohai, Robin Saha, and Beverly Wright, "Toxic

Wastes and Race at Twenty, 1987–2007: Grassroots Struggles to Dismantle Environmental Racism,” United Church of Christ website, March 2007, [www.ucc.org/justice/pdfs/toxic20.pdf](http://www.ucc.org/justice/pdfs/toxic20.pdf).

25. Many errors and alerts again become apparent in a website accessibility evaluation.

26. Safer Chemicals, Healthy Families, “Legislative Update,” accessed May 1, 2013, <http://www.saferchemicals.org/safe-chemicals-act/index.html>.

27. Safer Chemicals, Healthy Families, “Safe Chemicals Act of 2011–S. 847,” accessed May 1, 2013, [http://www.saferchemicals.org/pdf/resources/Safe\\_Chemicals\\_Act\\_2011.pdf](http://www.saferchemicals.org/pdf/resources/Safe_Chemicals_Act_2011.pdf).

28. The purpose of describing the appearance of a variety of ethnicities and races is less to assert accuracy of any given racial or ethnic assumption by than author and more to show that the producers of these texts appear to be aiming for a diverse range of ethnicities and races.

29. Theorizing limits is part of a larger project I am working on. Historically C. S. Holling’s 1973 articulation of a “limit” as the moment at which abrupt change occurs has been pivotal to ecological thought, as has the call in *Limits to Growth* to consider how socioeconomic and ecological “layers of limits” intersect. See C. S. Holling, “Resilience and Stability of Ecological Systems,” *Annual Review of Ecology and Systematics* 4 (November 1973): 1–23; and D. H. Meadows, J. Randers, and D. L. Meadows, *Limits to Growth: The 30-Year Update* (White River Junction VT: Chelsea Green, 2004), quotation on 222.

30. Denise Schipani, “The Fourth R: Resilience,” *Better Homes and Gardens* (September 2013): 214–23, quotation on 214. I have my mother-in-law to thank for sending a copy of this article to me.