

Poisoned Subjects: Testimonial Justice in Toxic Life Narrative

by

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Abstract

Since at least the publication of Lois Gibbs's 1982 memoir about the toxic waste disaster in New York's Love Canal community, anti-toxics social movements have relied on personal narrative as a crucial vehicle through which to advance their political agendas. As a result, acts of personal witness have been central to the body of knowledge ecocritics call "toxic discourse," which names a set of recognizable topoi through which fears about toxic proliferation are represented in narrative. This dissertation asks how people exposed to environmental chemicals wield personal narrative to constitute themselves as *poisoned subjects* seeking recognition and redress for toxic injury. As they witness to the harms of toxic exposures, poisoned subjects confront gendered and ableist challenges to their authority as witnesses to embodied experiences of illness and disability. Confronting such testimonial injustice, poisoned subjects navigate unsteady relationships to normative forms of being and embodiment.

"Poisoned Subjects" examines life narratives emerging from three anti-toxics embodied health movements: diethylstilbestrol narratives *DES Daughter*, *Daughters at Risk*, and *DES Stories* in chapter 1; multiple chemical sensitivity testimony collections *The Dispossessed* and *Amputated Lives* in chapter 2; and alternative food exposés *The Omnivore's Dilemma* and *Tomatoland* in chapter 3. Across these successive chapters, the dissertation tracks an "ur" narrative of environmental chemical exposure in which autobiographical narrators draw on familiar tropes and story structures to make legible claims as subjects of toxic harm. The final chapter reads the digital art piece *Male Pregnancy Project* as a toxic life narrative in order to

interrogate toxic discourse's implicit messages about disability, reproduction, and justice. Reading *Male Pregnancy Project*'s interest in hormone-induced bodily changes back onto environmentalist concerns about endocrine-disrupting chemicals reveals toxic discourse as an inheritor of a long tradition of eugenic environmentalisms. Toxic discourse is invested in concepts of fitness and better breeding that negatively impact efforts toward testimonial and embodied justice for marginalized ecological others.

“Poisoned Subjects” intervenes in the study of toxic discourse to consider relationships between tropes of toxicity and autobiographical forms. Drawing attention to the deep connection between environmental and testimonial justice, this dissertation demonstrates that personal witness is central to the ways environmental movements and subjects are imagined. In so doing, it challenges prevailing approaches to toxic discourse as congruent with environmental justice. While toxic discourse is a strategy that has helped some subjects achieve recognition and win political gains, personal narratives of environmental chemical exposure reinscribe interlocking norms of gender and ability.

Introduction

Poisoned Subjects in the Risk Society

By writing stories about environmental change, we divide the causal relationships of an ecosystem with a rhetorical razor that defines included and excluded, relevant and irrelevant, empowered and disempowered. In the act of separating story from non-story, we wield the most powerful yet dangerous tool of the narrative form. It is a commonplace of modern literary theory that the very authority with which narrative presents its vision of reality is achieved by obscuring large portions of that reality. Narrative succeeds to the extent that it hides the discontinuities, ellipses, and contradictory experiences that would undermine the intended meaning of its story. Whatever its overt purpose, it cannot avoid a covert exercise of power: it inevitably sanctions some voices while silencing others. A powerful narrative reconstructs common sense to make the contingent seem determined and the artificial seem natural.

-William Cronon¹

The Love Canal story is about a thousand families who lived near the site of an abandoned toxic chemical waste dump. More important, it is a warning of what could happen in any American community...Love Canal is the story of how government tends to approach a problem, and of how we, ordinary citizens of the United States, can take control of our own lives by insisting that we be heard.

-Lois Gibbs²

This is a story about stories. The stories people tell about lives shaped by chemicals in the environment; the repeated telling of those stories in the context of health social movements; and the stories that emerge as literary and cultural critics, social scientists, and historians make sense of those narratives across the shifting terrains of environmental activism and late capitalism. This is a story about a kind of subjecthood that emerged in the last third of the twentieth century. A subjecthood constituted alongside the mass infusion of human-made chemicals into “natural”

and built environments. A subjecthood organized around growing anxieties about the physical effects and cultural meanings of this toxic proliferation.

“Poisoned Subjects: Testimonial Justice in Toxic Life Narrative” is a study of autobiographical representations in late twentieth- and early twenty-first-century embodied health movements in the United States. Personal testimony, offered through a wide variety of forms of life narrative, illuminates how toxic anxieties and materialities help produce collective political identities and cultural understandings of the meaning of a life under late capitalism. I ask how people exposed to environmental chemicals wield forms of personal narrative to constitute themselves as *poisoned subjects* seeking recognition and redress for toxic illness or injury. Together, the chapters that follow probe relationships between ideologies of biological reproduction and economic productivity as they operate within environmentalist movements, literatures, and criticisms.

It begins with a story: In the late 1970s, residents of a Niagara Falls neighborhood made headlines for their struggle against government and industry officials indifferent to the plight of a community living atop a toxic waste dump site. In her 1982 memoir, neighborhood resident Lois Gibbs testifies to her successful fight against scientists and senators who believed that a housewife could not understand the complexities of epidemiology. Amidst accusations of “hysteria,” Gibbs and her neighbors remained convinced that toxic waste was responsible for the high rates of cancer, miscarriage, and other health problems in Love Canal.³

Since then, anti-toxics social movements have relied on personal narrative as a crucial vehicle through which to advance their political agendas. If the incident itself shaped future community-based anti-toxics action, Gibbs’s narrative helped to establish the role of personal witness in shaping the body of knowledge ecocritics call *toxic discourse*—expressions of broad-

based public anxieties about the perceived threat of chemicals in the environment. In *Love Canal: My Story*,⁴ Gibbs frames her pre-toxic self as a “square” housewife (67), a political naïf who is forced into an activist role in the name of her children’s and neighbors’ safety. The narrator tells the story of awakening both to the risks confronting her family and to political activism as she takes on the state and its agents to ensure the survival of her lower middle class and working class community. *Love Canal* interrogates gendered and classed assumptions about institutional authority, asking whose bodies and experiences can produce expertise about environmental toxicity.

Such challenges to top-down formulations of scientific knowledge production are part of what make *Love Canal* an exemplary text of contemporary toxic discourse. The literary ecocritic Lawrence Buell, who established the framework of toxic discourse as a recurring set of representational strategies, identifies four major topoi through which subjects of late modernity express fears about and theorize toxic risk.⁵ First is the *shock of awakened perception*. Toxic discourse recounts a coming-to-knowledge that one’s environment is not a pristine, ‘natural’ space but has been polluted by synthetic chemicals. Often this pastoral disillusionment is sparked by personal illness. As they become aware of pervasive toxic risk, previously apolitical individuals or communities are motivated to speak out against *a world without refuge*. Although toxic awareness may be initiated in response to a specific chemical or contaminated community, toxic discourse recognizes that there is no safe place out of the way of toxic threats. Galvanized by these realizations, the subject at the center of toxic discourse pits her knowledge—which may be produced through community epidemiology or other forms of lay diagnosis⁶—against an institutionally-sanctioned narrative that minimizes the risks posed by toxins. Competing narratives about toxic risk assessment produce *a moral drama on a David versus Goliath scale*.

Finally, the drama is presented as lurid or grotesque through techniques of *gothification* (L. Buell 35–45). Buell and others have shown how this interlocking set of topoi, each of which draws on earlier literary traditions like Virgilian pastoral and the urban reform narrative, coalesced in the latter half of the twentieth century under the particular influence of the environmentalist touchstone *Silent Spring*. So emerged a widely recognizable structure for telling stories about toxic threats that contributed to the circulation of such narratives and the anxieties that they both name and produce.

In designating pervasive fears about toxic proliferation and its aftermaths “anxiety,” I am adopting Buell’s language. It is the fundamental instability of evidentiary truths about toxic risk that leads Buell to characterize the collective social affect about toxicity in this way. Buell himself follows in the tradition of theorists of contemporary modernity like Anthony Giddens, Ulrich Beck, and Frederic Jameson in using language that is freighted with connotations of mental disease or disorder. Certainly, there is a powerful disability studies critique to be made against the use of the term “anxiety” to denote concerns about toxicity for this very reason. Instead, we might look again to Beck and Giddens for alternate terminologies: fear, angst, dread. Yet, Beck makes the argument—which I find both persuasive and useful—that, in the contemporary period, social inequalities are masked by the individualization of social problems. “The result,” he writes, “is that social problems are increasingly perceived in terms of psychological dispositions: as personal inadequacies, guilt feelings, anxieties, conflicts, and neuroses. There emerges...*a direct relation between crisis and sickness*” (100, emphasis in original). A core concern of this dissertation is to explore representational relationships between crisis and *disability* in contemporary narratives of toxic proliferation.

More recently, Heather Houser has treated anxiety as a characteristic affect of

contemporary US fiction that links environment and soma. I concur with her assertion that environmental “anxiety bends toward the future...aris[ing] from a totalizing image of the now that anticipates further degeneration of the present in a foreseeable future” (Houser 204). This understanding accords with the toxic trope of the “world without refuge.” I disagree, however, that anxiety is necessarily paralyzing to environmental resistance (ibid. 30). By unpacking conditions of testimonial injustice faced by witnesses to toxic harm, I will show that part of what makes fears about toxic threats disabling are the ways that testimony, recognition, and redress are forestalled by the refusal to take seriously such fears, which are so often rooted in embodied and community-based knowledges. In this context, to the extent that fears about toxic exposure are represented *by*, but more often *to*, subjects of toxic harm as hyperbolic, neurotic, obsessive, or disordered, I hope that my readings of toxic life narratives in this dissertation will demonstrate that the term “anxiety” has the potential to critique, even as it conjures, ableism.

Buell’s crucial intervention into the humanistic study of environmental harms has proven to be the recognition that cultural understandings of what constitutes environmental health and environmental risk are the product of enduring *narratives*. Subjects negotiate the threat of environmental chemicals through environmental rhetorics, through which “some stories acquire the power to represent risk in terms that we understand as realistic” (Heise 139). These representations may (or may not) be rooted in scientific evidence about material phenomena. Nonetheless, individual and collective affect are funneled through existing narrative structures to produce a shared sense of what toxicity is, where it can be found, and what it might mean. Authors and activists hoping to capture the public imagination mobilize existing tropes and forms to put forward a moral-scientific case that can be read as authentic.

Thinking about toxicity as a discourse has significant political implications. Buell links

the emergence of contemporary toxic discourse to the growing mainstream prominence of previously marginalized environmental justice activism in the 1990s (31–33). The predominant tropes of toxicity draw on the pastoral ideal of a natural world unsullied by human intervention, even as they cede the role of human social relations in shaping environmental encounters. For Buell, toxic discourse thus holds the potential to dismantle the binaries of nature/culture, country/city, and—crucially—environmental conservation/environmental justice through its series of affectively powerful rhetorical moves. In this framework, although “[t]oxic discourse may repress, fail to fulfill, or swerve away from itself,” it is at base a liberatory project (L. Buell 51). Its structures help to spur marginalized communities to environmentalist action and lend “psychological and rhetorical cogency” to testimony about toxic risk (ibid. 37–38). Toxic discourse derives its cogency through the repetition of narratives that then come to be seen as representative. In doing so, its structures also determine the limits of toxic testimony. Some stories, and some subjects, do not fit the representative model and so cannot be represented within the schema of toxic discourse.

“Poisoned Subjects” engages new materialisms alongside critiques of health-environmental movements as disciplinary technologies to explore the intersection of gender and disability as a nodal point of contemporary toxic anxieties in the United States. Toxic discourse’s moral and affective force are generated not only by its backward gaze toward an idyllic natural environment, a gaze that is admittedly always already forestalled. Just as important is its longing for an idealized, whole body, in contrast to the sexually and physically disabled bodies whose injuries toxic discourse both represents and adjudicates. This tension, between competing desires for the recognition of one’s body as both normative and chemically injured, constitutes the poisoned subjecthood at the heart of toxic discourse’s autobiographical productions, which I

term *toxic life narratives*.

If “toxic discourse” names a set of representational strategies for negotiating the interwoven moral, affective, and material domains of contemporary toxic anxieties, life writing is a primary site at which subjects adjudicate contested questions of identity and authenticity. Yet surprisingly little attention has been paid to the field of life writing studies as ecocritics have enthusiastically taken up the idea of a toxic discourse.⁷ This despite the fact that life narratives are some of toxic discourse’s exemplary texts. Scholars have taken up Buell’s schema to consider Gibbs’s *Love Canal*, Terry Tempest Williams’s *Refuge*, Sandra Steingraber’s *Living Downstream* and *Having Faith*, Susanne Antonetta’s *Body Toxic*, and Audre Lorde’s *Cancer Journals*, largely without attending to the specificities of these texts *as autobiography*.⁸ More generally, critics have been more interested in the narrative forms of toxicity than in its subjects.⁹ This makes a certain kind of sense, given Buell’s own interest in mapping a toxic taxonomy that organizes texts across genres and forms. But without significant critical interest, the poisoned subject at the center of toxic discourse has been left to languish, along with the kinds of organizing questions, critical rubrics, and ethical commitments that autobiographical subjecthood brings to the table. The initial impulse for this project came from a recognition of this significant gap within literary environmental criticism. In focusing on toxic life narratives, I aim to insert the poisoned subject, as an autobiographical subject, back into toxic discourse.

Proposing a more capacious understanding of toxic discourse and its uses as the field of ecocriticism increasingly orients itself toward environmental justice, “Poisoned Subjects” ultimately calls for an intersectional, coalitional environmental justice literary criticism. How do autobiographical subjects tell stories of environmental toxic exposure? By what metrics are such stories judged to be authentic or inauthentic? How do subjects of toxic harm use personal

narrative to claim rights and recognition? How do those claims impact the legibility of future subjects and their narratives of toxic harm? Another way to put this is to ask who—to borrow from ecocritic Sarah Jaquette Ray—are toxic life narrative’s “ecological others?”

In the chapters that follow, I explore the ways that autobiographical subjects of toxic life narratives claim politicized identities around toxic exposures, arguing that poisoned subjecthood is characterized by the careful pathologization of otherwise normative bodies and selves. A poisoned subject may be sick *but not* deviant, infertile *but still* womanly, disabled *and* economically productive. I consider how such unstable claims to normativity practice an identity politics of exclusion that positions some people and some bodies as simply out of bounds, too impaired to fulfill the neoliberal citizen-subject’s interlocking imperatives to biological reproduction and economic productivity.

The work of this dissertation is to trace an “ur”-narrative of poisoned subjecthood that solidifies as the tropes of toxic discourse are repeated and reconstituted through personal narratives about environmental chemical exposure. These autobiographical narrators offer testimony about living in toxified bodies as they seek recognition and redress for the illnesses and injuries they believe to have been caused by chemicals in their environments. The contours of autobiographical engagement of toxic discourse shift in accordance with the historical and political context out of which such narratives emerge. We can nevertheless identify a shared story structure that mobilizes and exceeds Buell’s toxic topoi to generate a figure that is affectively and rhetorically legible across contemporary toxic life narratives in the United States: the poisoned subject.

Poisoned Subjects and Testimonial Injustice

The poisoned subject of toxic life narrative emerges out of toxic discourse's contemporary formation. Although these toxic topoi draw heavily from earlier literary traditions, critics have argued that expressions of toxic concern began to take on new valences as the felt urgency of the threat of environmental chemical exposures surged in the wake of a series of highly-publicized, global events in the mid to late twentieth century: the atomic legacies of WWII and the Cold War, Three Mile Island, Bhopal, and Chernobyl. Within the US context, the publication of Rachel Carson's *Silent Spring* in 1962 and contamination in the Love Canal community in New York state in the late 1970s served as "signal events" that propelled significant public interest in pesticide use and toxic waste disposal, respectively (Edelstein 6). Carson's book helped to establish a pattern of motifs for representing toxic proliferation that would reappear in the discourse surrounding the Love Canal disaster. The two events are often linked in accounts of US environmental history, with critics noting the similarities between Carson's alternately pastoral and apocalyptic representations and the media attention to Love Canal as a contaminated suburban community. The influence of *Silent Spring* is also visible in Gibbs's *Love Canal* memoir. Gibbs echoes Carson in depicting an idyllic community contaminated through corporate and government negligence, as well as in invoking a nuclear discourse that would have resonated with Cold War-era audiences.¹⁰

Love Canal is in many ways the effective beginning of toxic life narrative, and Buell relies heavily on Gibbs's narrative in elaborating not only the lineage of toxic discourse, but also its metrics for gauging truth and proof. Gibbs's story of pioneering strategies for community epidemiology and resisting officials who dismissed her findings as "useless housewife data" exemplifies toxic discourse's moral dynamic (Gibbs 167): individuals or communities challenge

institutional authority to make determinations about toxic risk and harm. The narrative demonstrates Buell's claim that toxic discourse operates at the level of "allegation or insinuation, rather than of proof. Its very moralism and intensity reflect an awareness that the case has not yet been proven, at least to the satisfaction of the relevant authorities" (48). In this, toxic discourse captures the tensions between expertise and public trust that characterize a formation of late capitalism known as the "risk society."

German sociologist Ulrich Beck theorized risk society as corresponding to an emerging "reflexive" modernity. If "simple" or "classical" modernization represented the development of an industrial society out of pre-modern feudal society—a process of social-economic advancement characterized by the production of material goods and the extension of rights—reflexive modernization demystifies and undermines the organizing principles of industrial modernity. Modernization turns in on itself, as expertise is directed not toward the advancement of new ideas and technologies but to complicating and adapting the advancements that characterized industrial modernization. Producing unstable conditions of risk, security, and expertise, advanced modernity is, in Beck's view, a "shadow kingdom" of invisible but ever-present hazards to human and environmental health (72). The social theorist Anthony Giddens, whose work on reflexive modernity closely parallels Beck's, observes a new "risk profile" characterized by tension between trust and risk, security and danger. Under reflexive modernity, expert systems designed to mitigate natural dangers create new environmental hazards produced through the very act of technological intervention. Risk management becomes self-reflexive, as technological fixes produce increasingly technological risks. Under these conditions, trust in expert systems "is a double-edged phenomenon" (Giddens 7), one that forms the very structure of modern life.

Toxicity is a foundational element of this new modernity, its technologies, and its organization of knowledge. Noting the toxic contamination of consumer goods, Beck illustrates the “double shock” associated with risks that are both produced and managed by highly specialized techno-scientific experts. “The threat itself is joined by the *loss of sovereignty* over assessing the dangers,” he writes.

The whole bureaucracy of knowledge opens up, with its long corridors, waiting benches, responsible, semi-responsible, and incomprehensible shoulder-shruggers and poseurs. There are front entrances, side entrances, secret exits, tips and (counter-)information...All of that would not be so dramatic and could be easily ignored if only one were not dealing with very real and personal hazards. (Beck 54–55)

The perception of obfuscation and secrecy surrounding felt dangers generates anxieties amongst non-experts that circulate throughout the public sphere. For this reason, Michael Edelstein argues that toxicity functions in the public imagination as a *plague* that entails “uncertainty over time, loss of personal control, anger and anxiety and distrust, negative changes to the environment, loss of trust in technology, and a new way of seeing the world” (22). These are the characteristics of the risk society, in which heightened risk awareness creates new relationships between modern subjects and their physical and social worlds.

Emerging in the same period as the women’s health movement and evincing a kind of second-wave feminist political consciousness, *Love Canal* cannily mobilizes the figure of the housewife-cum-epidemiologist to point up the disproportionate effects of Beck’s “double shock” for some groups. If the new risk society means confronting not only the fact of widespread toxic threats but also the “loss of sovereignty” to weigh those threats (Beck 54), the rejection of Gibbs’s and other Love Canal residents’ epidemiological findings as “useless housewife data” indicates that such sovereignty has been and remains unevenly distributed. Residents found their community epidemiology efforts rejected by scientists and government officials not only because

they lacked expertise but because they were not identifiable as *the kind of people who might possess expertise*.¹¹ That is, because they were housewives. It is not merely Gibbs's "case" that must be "proven;" it is her very authority to make it. Gibbs's testimony suggests that she did not, or did not only, experience a loss of sovereignty over risk assessment in the face of increasingly rarified techno-scientific knowledge. Rather, her identity as a 27-year-old working class housewife rendered illegible her assessment of the toxic hazard to her community.

In response, *Love Canal*'s narrator plays the character of the housewife to her advantage, emphasizing her youth and apparent political naïveté to diffuse suspicions of radicalism and heighten audiences' sense of moral outrage. After all, "it was the realization that [her] own child was in danger" that "pushed" the young Lois into the role of activist and agitator (Gibbs 2). The words "housewife" and "mother" each appear more than a dozen times throughout the narrative, with Gibbs shrewdly juxtaposing—when it suits her—women's intimate knowledge and nurturing roles against the esotericism of experts and the agitation of activists. In one scene, the narrator recounts an exchange at a public meeting where an engineer was explaining to residents a proposed remediation of the toxic waste seepage at Love Canal. Sensing that officials were using dense technical terms to give residents the run-around, Lois interjects: "'Excuse me' . . . 'I'm just a dumb housewife. I'm not an expert. *You're* the expert. I'm just going to use a little common sense'" (50). In another passage, she opines, "Radicals and students carry signs, not housewives. Housewives have to care for their children and their homes. But here I was, giving press interviews, doing radio programs, and chasing a congressman, a governor, and the president with signs saying I supported him or that he was doing something wrong" (115). In these and other episodes in her memoir, Gibbs mobilizes a deceptive identity politics that plays on cultural stereotypes about women's limited sphere of influence to redefine the housewife as a

public figure who uses her lay expertise to care for her children *and* to serve her community and her nation.

As Gibbs's *Love Canal* aptly demonstrates, a defining feature of toxic discourse is that authority and expertise are always up for grabs. The central narrative action in a toxic life narrative is a struggle between an individual or community that has become aware of toxic risk and a hegemonic institution (whether state, corporate, or scientific) that denies the reality of that risk or its responsibility for accurately assessing and managing risk. It is fundamentally a contest over risk assessment as a form of knowledge production. If the register of toxic discourse is "allegation or insinuation, rather than...proof" (L. Buell 48), in toxic life narratives personal testimony is offered as refutable evidence of risk, harm, and expertise. This truth effect occurs on two levels: within the narrative, as narrators tell of their encounters with institutional opposition to their risk assessments, and in the exchange between autobiographical narrators and the readers "whom they want to persuade of their version of experience" (Smith and Watson, *Reading* 7).¹² When Gibbs recalls Love Canal residents' community epidemiology efforts being dismissed as "useless housewife data," she not only recounts a past challenge to her authority but engages a rhetorical strategy that does important testimonial work in the narrative present. The same questions of authority, expertise, and credibility that operate within toxic discourse's narratives also extend beyond the page. Like scientific and governmental authorities, readers of toxic life narratives are called upon to adjudicate the case for toxic risk.

When the allegations of toxic discourse are leveled through personal narrative, autobiographical subjectivity itself becomes a site of contest. *Love Canal* evinces an acute awareness that *who one is* has the potential to determine *how one's testimony is heard*. This type of awareness is fundamental to toxic life narratives, whose poisoned subjects attempt to manage

what the feminist philosopher Miranda Fricker has called “testimonial injustice.” Put simply, testimonial injustice occurs when testimony given by a speaker is not afforded as much credence as would be granted the same testimony given by a different speaker—when “prejudice on the hearer’s part” causes him to doubt a speaker “as a giver of knowledge, as an informant” (Fricker 4–5). Testimonial injustice takes several forms, but a key component is identity prejudice. Fricker’s standard example is of police refusing to believe a witness’s account because he is black. In this case, the witness experiences an identity-credibility deficit, in which his perceived social identity limits his perceived credibility as a speaker. This deficit occurs regardless of whether the content of the witness’s given testimony is itself credible to his police-hearers.

Understanding the stakes of testimonial injustice requires attention to the ethics of listening rather than the truthfulness of speaking. This distinction will become especially important in chapter 2, which concerns the contested environmental illness known as multiple chemical sensitivity. My task is not to weigh in on whether people who identify as chemically sensitive are “telling the truth” when they theorize the relationships between their bodies and the chemicals in their everyday environments. As a literary critic, my goal is instead to understand how MCS testimony is shaped by the ethical and narrative conditions of witness. I attempt to sort out how and why MCSers, as they are sometimes called, are so often perceived as in-credible witnesses, as well as how and why their narratives are shaped by credibility deficit.

Attending to testimony is not to dismiss what many chemically sensitive people, MCS-affirming health professionals, and medical skeptics agree are still-open questions about the etiology of this illness. The MCS anthologies I consider in chapter 2 suggest that testimony has everything to do with disease causation. MCS testimony demonstrates that the ethico-narrative environment in which witnessing occurs has the potential to shape the physical environments

MCSers inhabit, as well as the meanings environmental illness carries. For example, Victoria Savini juxtaposes her experience working for an employer who seems to suspect her of malingering against the accommodations she was able to secure at her new job. Because her new employer “believed me when I said I had a problem with certain chemical exposures,” she says, “I am able to keep working” and “be extremely productive” (in Johnson 147). Victoria’s story attests to the material consequences of in/credible witnessing, theorizing the role of testimony in negotiating relationships between bodies and environments as both material and cultural phenomena.

Understanding questions of ethics as entangled with but nonidentical to questions of truth-telling helps to elucidate the types of harm caused by testimonial injustice. Testimonial injustice is part of a broader category of epistemic injustice, which concerns the ethics of knowing. Epistemic injustice produces on the one hand purely epistemic harms, in which knowledge fails to be transmitted or is completely lost because of identity prejudice. Fricker describes this type of harm as “an epistemic disadvantage to the individual hearer, and a moment of dysfunction in the overall epistemic practice” (43). A second and more urgent kind of harm is that incurred by the would-be witness whose testimony is not received. He or she is harmed “as a giver of knowledge” and is therefore “symbolically degraded *qua* human” (ibid. 44). Because testimonial injustice tends to operate systemically, alienating certain classes of people from their full capacity as subjects of knowledge, it constitutes a form of oppression (ibid. 59).

Since testimonial injustice is a fundamental condition compelling toxic discourse, it is easy to see why critics have tended to read toxic discourse as a counter-hegemonic or liberatory practice. In the case of toxic life narrative, people who experience illness or injury as a result of environmental chemical exposure use personal narrative as a vehicle to make a case for

themselves as subjects of knowledge and subjects of rights in the face of challenges to their authority as givers of knowledge. Giving knowledge is a capacity which is “essential to human value” (Fricker 5). Fricker’s reasoned analysis on this point reveals the deep contradictions produced by conditions of testimonial injustice. Testimonial injustice exerts a powerful dehumanizing force, because it is “an essential attribute of personhood to be able to participate in the spread of knowledge by testimony” (ibid. 58). Testimonial injustice reinforces the social belief that certain classes of people do not possess the full capacities of human personhood; and, in denying people the exercise of those capacities, it actually diminishes the expression and full realization of their personhood. Under these conditions, asserting oneself as a subject of such an epistemic harm and claiming the right to have one’s testimony heard is actually quite a tricky business. It involves establishing oneself as both dehumanized (and so a subject of harm) and fully human (and so a subject of rights). It involves the exercise of a capacity the exclusion from which constitutes the very harm one is attempting to adjudicate. These contradictions present significant epistemological and narrative challenges with which subjects of testimonial injustice contend.

For the autobiographical subjects of toxic life narrative, testimonial injustice is intimately linked to and may be compounded by the difficulties of witnessing to trauma. Trauma itself arises, as Dori Laub explains, from incomprehensible historical events, and psychological trauma may preclude integrated, narrative memories of the traumatic event. As such, trauma creates a “collapse of witnessing” and creates “impossible” witnesses with unreliable memories (“Truth and Testimony” 64). Moreover, the repeated telling of stories of trauma in late twentieth-century culture produces “a common story...out of the accumulation of voices telling stories that conform to a similar structure, thematically organized to invoke similar histories of abuse,

violence, or degradation, and utilizing similar modes of address that make an emotive appeal” (Schaffer and Smith 45). Stories of trauma that depart from accepted structures may be called into question or dismissed as “inauthentic.” Of course, all life narrative is constructed, but the fracturing of traumatic memory makes authenticity a particular problem for stories of trauma.

A pertinent example of these challenges can be seen in the emergence of childhood sexual abuse as the overarching narrative for understanding women’s trauma and the rise of the counter-narrative of “false memory syndrome” in the 1980s and 1990s. In clinical settings and in life writing, stories by women (and some men) of sexual abuse and incest proliferated during this period. Sylvia Fraser’s *My Father’s House* (1987), Elly Danica’s *Don’t: A Woman’s Word* (1988), Michael Ryan’s *Secret Life* (1995), Kathryne Harrison’s *The Kiss* (1998), and Linda Catherine Cutting’s *Memory Slips* (1998) are a sampling of such memoirs. Some of these narratives are predicated on the recovery of memories fractured by or previously lost to trauma. Clinical therapists developed tools for drawing out and making sense of repressed memories of abuse, eliciting outraged responses from parents and some professionals that irresponsible clinicians were implanting false memories in their patients’ minds. Feminist activism had created the conditions for speaking about sexual abuse as a common source of trauma among women, and in turn abuse became central to feminist discourse about trauma. Even scholars who do not give credence to allegations of widespread false memory, like Leigh Gilmore and Janice Haaken, suggest that the dominance of incest as a paradigm for women’s trauma allowed childhood abuse to serve as an acceptable metaphor that “may resonate with a less definable experience of boundary violation” (Gilmore, *Limits* 26). Activism around sexual trauma created support systems for survivors and made childhood sexual abuse one of the few legible stories women could tell about traumatic memories and experiences. Rather than asking whether memories of

abuse are “true” or “false,” Gilmore recognizes trauma as testing the limits of both memory and narrative. When it comes to trauma, the question should not be “Does she tell the truth?” but “*How* does she tell *a* truth?”

Toxicity shares hallmarks of other traumatic historical events: it may be experienced both as devastating, spectacular event (think Love Canal, Chernobyl, *Deepwater Horizon*) and as pervasive anxiety, such that toxicity echoes across time in the public sphere and individual psyches. Many life narrators represent toxic exposures as producing traumatic conditions and post-traumatic reverberations. Poisoned subjects also make use of discourses of trauma to gain recognition as legitimate witnesses to harmful toxic exposures. Each of the chapters comprising the main body of the dissertation probes a different formulation of trauma as witnesses respond to changing conditions of toxicity and testimonial injustice. In chapter 1, diethylstilbestrol narratives make use of the familiar 1980s narrative of sexual post-trauma to represent the harms of reproductive cancers and seek monetary compensation through the legal system. In chapter 2, anthologies of multiple chemical sensitivity testimony generate an *ur* narrative of environmental illness as a national crisis. The alternative food movement addressed in chapter 3 represents trauma as culturally diffuse, drawing consumers and low-wage agricultural workers together under the umbrella of toxic pesticide risk.

My understanding of how trauma functions within and through these social movements is informed by calls for greater exchange between trauma studies and disability studies. Trauma studies emerged principally through scholarship about the Holocaust, and this interdisciplinary field has been particularly engaged with historical and psychological or psychoanalytical approaches, with less attention to personal experiences of embodiment. By the same token, disability activists and scholars have rightly been wary of interpretive frameworks that may

reinforce the familiar model of disability as a problem located within a pathologized individual body. As such, “the capacity to be wounded, injured, or traumatized is not always considered a feature of disability,” writes disability studies scholar Tobin Siebers, “but it should be” (*Disability Aesthetics* 102). I take seriously autobiographical narrators’ testimony about the traumas associated with toxic illness, injury, and impairment. I also track and interrogate the ways that trauma as a rhetorical strategy extends beyond a single narrative or movement to shape the meanings of toxicity and disability in complex and sometimes troubling ways.

The centrality of both trauma and testimonial injustice to toxic life narrative reveals the essential characteristic of what I am calling poisoned subjecthood: a simultaneous, embodied performance of both inclusion and exclusion. As noted earlier, toxic discourse derives its force from a kind of prelapsarian ideation; environments and bodies can only be represented as chemically injured as measured against their supposed natural state of health and wholeness. But the poisoned subject is also always constituted against an abjectly disabled or fragmented body. Toxic discourse’s poisoned subjects must negotiate these competing poles, performing disablement in order to achieve recognition as living with chemically injured bodies while also claiming the position of rights-bearing subjects whose completeness and representativeness allows them to make claims and seek various forms of compensation through the law and the state. The central project of this dissertation is to explore the narrative mechanisms and social meanings of such unstable claims to normativity within the context of ongoing and future toxic struggles.

At the site of toxic discourse, testimonial justice intersects with conceptions of *environmental justice*. The question of who can be heard as a legitimate authority on matters of toxic exposure is limited not only by the kind of identity prejudice Miranda Fricker describes but

also by deep-seated ideas about what environment is and for whose benefits it exists, can be exploited, or should be preserved. Buell and others recognize toxic discourse as allied with projects of environmental justice (EJ), which addresses “the interconnections between human justice and environmental degradation” (Ray 19). In contrast to environmental conservationist or preservationist philosophies, which value the preservation of “wild” or “natural” spaces as a fundamental good, EJ recognizes the imbrication of the social and natural worlds. EJ refuses to protect “nature” at the expense of human social justice and integrates environmental concerns into structural analyses of race, class, colonial, and gender oppression.

Recognizing the entanglement of human social and environmental concerns is necessary but not sufficient for environmental justice. A recurring issue that crops up throughout my exploration of anti-toxics movements is the distinction between rights-based and justice-oriented critiques. While articulations of EJ may include assertions of specific human rights, the two frameworks are fundamentally distinct in that environmental rights are the property of (individual or collective) subjects, while environmental justice represents an ethical stance. An analysis from a position of rights allows a community to demand access to information about toxic waste disposal in the region, but only an analysis from a position of justice can demand “a more equitable distribution of environmental goods and bads” across communities, regions, or geopolitical boundaries (Shrader-Frechette 6). Yet not all conceptions of justice held by environmentally-concerned social movements adequately address structural inequalities based on class or race. The alternative food movement, for example, “deliberately invokes a communitarian conception of justice” that conflates localism with just social-environmental relations. Communitarianism serves to cover over and even “reproduce, rather than confront, white privilege and other forms of inequality” (J. Harrison, *Pesticide Drift* 163–164).

In contrast to preservationism, environmental rights, and libertarian-communitarian conceptions of justice, EJ in its ideal form is historical, intersectional, and systemic in its analysis. At the 1991 First National People of Color Environmental Leadership Summit in Washington, DC, delegates outlined seventeen Principles of Environmental Justice that continue to define and guide EJ movements. In its Preamble, “Principles” situates environmental justice in relation to “500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples” (299).¹³ The document affirms “the sacredness of Mother Earth” and demands “mutual respect and justice for all peoples,” including the “fundamental right to political, economic, cultural and environmental self-determination” (ibid. 300). EJ is broad in its scope, encompassing all areas of social and political life as they are implicated in the ways that individuals and communities interact with the environment. It affirms political rights as it articulates a philosophy of human-environmental ethics that is grounded in historical, systemic analysis.

As literary critics, we can read for EJ (or not) in the rhetorics and politics of environmental literatures. But EJ is also an analytic that ecocritics can and should adopt, taking an intersectional, systemic approach in our thinking, scholarship, and teaching about environments and environmentalisms. Thus, while I am primarily concerned with how the discourse of toxic life narratives intervenes or participates in conditions of testimonial and environmental injustice, I also look to environmental criticism to consider how scholarship about toxic proliferation and toxic discourse can sometimes betray a dangerous ignorance of these conditions. Taking up issues of testimony and environment that address ability, gender, and labor, “Poisoned Subjects” demonstrates the need for an intersectional environmental justice criticism as the rule in literary environmental studies.

Poisoned Subjects and Embodied Health Movements

“Poisoned Subjects” considers toxic life narratives emerging from social movements that respond to different forms of environmental toxic proliferation. These embodied health movements (EHMs) place the material body and the embodied experience of illness at the center of social analysis and action. In EHMs, the personal is political. Indeed, as sociologist Susan Bell rightly notes, activist work around embodied health is often driven by an individual’s own illness experience. But their work moves beyond the personal to provide a structural analysis of environmental risk. As Bell explains, EHMs

are distinguished by framing their organizing efforts and critiques of the system through personal awareness and understanding of individuals’ experiences and by challenging science—from forming alliances with scientists to secure funding and legislation to collaborating in the ‘doing’ of science...The politicized collective work of embodied health movements transforms illness experiences, critiques medicine’s treatment of patients, and turns attention away from individual bodies as sites of risk to the risky environments in which the patients live. (4–5)

While maintaining a focus on the individual experience of embodied illness or disability,¹⁴ EHMs situate those experiences within the framework of the various social institutions that shape what it means to be ill or impaired.¹⁵ It is through such a structural analysis that they can organize to attain prevention measures, treatment, research, government funding, or medical recognition of their embodied experiences.

As Bell’s analysis suggests, the political work of EHMs is driven by the collective illness identities they help to produce. A collective illness identity emerges when “the individual sense of oneself [is] shaped by the physical constraints of illness and by others’ social reactions to that illness” and that sense of self develops through an imagined or experienced connection to a greater illness community (Brown et al. 60). Illness identities become politicized when they employ “a broader social critique that views structural inequalities and the uneven distribution of

social power as responsible for the causes and/or triggers of the disease... In short, a politicised collective illness identity begins the process of transforming a personal trouble into a social problem” (ibid. 60–61). EHMs challenge scientific practice as a central agent in determining the social experience of living with an ill or disabled body and build collaborative relationships with medical and scientific communities to reshape the meanings and experiences of illness and disability.

With its central chapters framed around embodied health movements, “Poisoned Subjects” brings a feminist disability studies lens to the study of toxic discourse and its autobiographical subjects. Disability studies describes “theory, research and practice that are antagonistic to the popular view that disability equates with personal tragedy” (Goodley xii). Disability studies shifts the frame around disability from a “personal predicament to disability as social pathology” (ibid.). In its broadest reaches, this shift is one “from the ideology of normalcy...to a vision of the body as changeable, unperfectable, unruly, and untidy” (L. Davis, *Bending* 39). Disability studies have emerged in the academy over the past 40 or more years, with exponential growth since in the mid-to-late 1990s. Feminist disability studies, more than an additive approach combining feminism and disability, takes an intersectional stance that is informed by the methods and concerns of both fields to reimagine both disability and gender.¹⁶ This dissertation joins other recent work in environmental studies that insists on the necessity of bringing disability studies perspectives into the mainstream of ecocriticism to better understand how environmental politics, literatures, and criticisms have been invested in defining and policing normative forms of embodiment.

The rise of disability studies within the academy has followed the growth of disability rights movements around the world. The proliferation of identity-based social movements such

as those focused on race, gender, and sexuality contributed to the radicalization of disabled people in the 1960s (Goodley 2–3). The 1970s and 1980s saw the rise of embodied health movements centered around AIDS and breast cancer, and spillover between these movements and the disability rights movement helped to foster awareness of illness and disability as loci of identity and sites of injustice (Brown et al.). In the US context with which this dissertation is concerned, the 1990 Americans with Disabilities Act (ADA) was intended to prohibit discrimination against disabled people in employment, public accommodations, and government services.

The United Nations Convention on the Rights of Persons with Disabilities defines disability as “an evolving concept” that “results from the interaction between a person’s impairment and obstacles such as physical barriers and prevailing attitudes that prevent their participation in society” (United Nations Enable np). The Convention, along with its predecessors, the 1982 World Programme of Action on Disabled Persons and the 1994 Standard Rules of Equalization of Opportunities for Persons with Disabilities, has influenced disability legislation in the United States and around the world.¹⁷ The understanding of disability represented in the United Nations’ definition distinguishes between *embodiment*—“long-term physical, mental, intellectual, or sensory impairments such as blindness, deafness, impaired mobility, and developmental impairments”—and disabling *environments* (ibid.). This distinction between the body as the site of *impairment* and the physical or social environment as the site of obstacles that produce *disability* is sometimes called the impairment-disability system. This distinction has been central to, if long complicated by, disability studies.¹⁸

“Poisoned Subjects” considers how illness and disability are represented within embodied health movements and through autobiographical forms in ways that are both recognizable and

have the potential to create change for individuals and communities with differently abled bodies. In keeping with this dissertation's core interest in repeated cultural narratives, I return throughout the chapters to the familiar representational strategies that G. Thomas Couser calls the "rhetorics of disability," which include narratives of triumph over adversity, spiritual compensation, and emancipation (Couser, *Signifying Bodies* 34–45; see also Dolmage). Lingering in the background of my readings is also the question, raised by scholars like Couser, David Mitchell, Lennard Davis, and Susannah Mintz, of to what extent autobiographical representation by people with disabilities tends to individualize disability experiences and reinforce the idea that disability resides in a dysfunctional body, thereby "limit[ing] the counterhegemonic potential" of these narratives (Couser, *Signifying Bodies* 47). Many of the texts I consider in the following pages pit different forms of physical, mental, or sexual impairment against one another in order to claim a pathologized—but not deviant—poisoned subjecthood.

Embodied health movements can and often do function as normative projects. Because "the norm pins down that majority of the population that falls under the arch of the standard bell-shaped curve," Davis explains that "the concept of the norm comes [with] the concept of deviations or extremes. When we think of bodies, in a society where the concept of the norm is operative, then people with disabilities will be thought of as deviants" ("Normality, Power, and Culture" 3). The toxic life narratives represented in the following chapters work to bring their members into the safety of the normative arch that Davis describes. They thus suggest that, in seeking to compensate for testimonial injustice, toxic discourse may shift the margins of normality in such a way as to create further conditions of epistemic injustice for specific groups, including those already coping with toxic exposure.

Interrogating Toxic Discourse in Personal Witnessing

In each of the three core chapters of this dissertation, I take up the autobiographical literature of an embodied health movement organized in response, at least in part, to toxic proliferation: the diethylstilbestrol (DES) action movement, the multiple chemical sensitivity (MCS) movement, and the alternative food movement. The dissertation is loosely organized along the axes of Buell's major topoi of toxic discourse. Life narratives in each of these movements emphasize a different motif of toxic discourse—DES narratives depict a David versus Goliath moral drama, MCS narratives emphasize a world without refuge, and the alternative food movement trades particularly on the shock of awakened perception. Without pigeon-holing or overly simplifying these complex social movements and their life narratives, I consider each EHM's discourse as exemplary of one topos in order to foreground the specific and often fraught issues at play within each set of narratives with respect to embodiment and environment in the risk society. Probing each motif intersectionally with respect to bodies, economies, and ecologies reveals how embodied health movements, as they mobilize toxic discourse to make health-environmental claims, privilege certain kinds of bodies as subject to environmental harm and as proper subjects of environmental rights.

In order to explore these claims, the chapters take anti-toxics embodied health movements chronologically, beginning with the diethylstilbestrol movement. A drug that had been prescribed to pregnant women in the United States since the late 1930s, DES was discovered in 1971 to cause an exceedingly rare form of vaginal and cervical cancer. Chapter 1, "Narratives of Diethylstilbestrol Exposure," begins with a reading of two single-subject narratives about DES exposure. Both autobiographical narratives represent civil lawsuits against major pharmaceutical companies, and both were published in 1981—within one year of Lois

Gibbs's *Love Canal*. I read this first pair of narratives with and against one another as literatures of litigation that follow the classic David versus Goliath moral drama of toxic discourse. I then turn to an edited collection of narratives of witnessing featuring DES-exposed people and their families, which moves away from the individualistic model of struggle represented through legal avenues of recourse and instead toward a more coalitional anti-toxics politics. Surveying DES narratives over time, I argue that the movement has been heavily invested in reproductivity and relationality in seeking redress for toxic harms to women's bodies, relying on and reinscribing the norm of reproductive bodies within heterosexual marriages in order to make claims on and through the state. The trauma of DES becomes the trauma of this violated heteronorm. Through my readings, I begin to line up a series of linkages between representations of reproduction, disability, and trauma that characterize toxic life narratives under contemporary conditions of neoliberal capitalism.

In chapter 2, "Frames of Disability in Multiple Chemical Sensitivity Testimony," witnesses draw on shifting discourses of disability to theorize bodies and environments in the face of an extreme version of the world without refuge. Rhonda Zwillinger's and Alison Johnson's edited collections of testimony by people experiencing multiple chemical sensitivity use repetition as a strategy to build political identification and create recognition for this contested illness. They also position readers as potential victims of everyday toxins through the prevalent image of the canary in the coalmine, which suggests that the chemically sensitive are harbingers of a massive public health crisis to come. MCS witnesses strategically medicalize the environmentally ill body while also universalizing environmental disability as they make bids for recognition under state-sanctioned apparatuses like the ADA. This chapter picks up on the normative function of linkages between disability, trauma, and the law established in chapter 1,

tying this to David Mitchell and Sharon Snyder's observation of a rising ablenationalism that attempts to bring *some* disabled bodies into the normative reach of neoliberal subjecthood.

Chapter 3 in many ways represents the limit case of the project's central concerns. In "Toxic Life Narrative in the Alternative Food Movement," my primary texts are two journalistic exposés characteristic of the new "alternative food movement"—really a loosely-related body of movements advocating organic agricultural practices, workers rights, and food sovereignty, among other causes and vocabularies. I read these texts as autobiographical narratives that test the boundaries of alternative food as an embodied health movement. Although the alternative food movement invokes bodies to promote political identification, the bodies most at risk (agricultural laborers, mostly migrant Latina/os, many undocumented) are not placed at the center of the movement's claims toward bodily crisis. Instead, the food movement mobilizes a discourse of cultural trauma, in which one group's toxic exposure produces a kind of contact trauma for the middle class consumer for whom both the text and the food is produced. The specter of endocrine-disrupting and teratogenic pesticides—prompting gruesome accounts of eyeless, limbless, and severely impaired babies born to migrant farmworkers—haunts these narratives as a warning to consumers, and health-environmental harms are frequently tied to moral-aesthetic ones. I consider how the logic of "alternatives" that drives the movement for organic and other non-traditional food production continues to advance market-driven solutions to industrial food production through flexible, ethical consumerism. Together, class-based aesthetic appeals and moral outrage over toxic threats to reproductive and working bodies are used to discipline consumer choice as a driver of corporate responsibility.

The final chapter breaks from the primary organizing principles that structure the first three chapters. Rather than focusing on multiple texts emerging from a single embodied health

movement, “Rethinking Environmental Chemicals Through Speculative Auto/biography” uses a single autobiographical project to interrogate toxic discourse’s implicit messages about disability, reproduction, and justice. Lee Mingwei and Virgil Wong’s digital art piece *Male Pregnancy Project* disrupts received ideas about a class of environmentally-distributed chemicals known as endocrine disruptors (EDCs). Reading the project’s interest in hormone-induced bodily changes back onto environmentalist concerns about EDCs, I show how toxic discourse’s policing of bodily difference that I track throughout earlier chapters impacts efforts toward epistemic and reproductive justice for gender non-conforming and racialized subjects. Far from offering *Male Pregnancy Project* as some sort of solution to the problems raised by the texts in my previous chapters, I use the project to open up further questions about the intersections between embodied health, testimonial justice, and autobiographical form.

In each chapter, claims to recognition and redress for toxic harms are attached to claims about biological reproductivity and/or economic productivity. DES daughters and their families seek compensation for damage to their reproductive capacities caused by a drug whose intended purpose was to facilitate successful pregnancies. Chemically sensitive people constitute themselves through personal testimony as disabled subjects claiming economic and labor rights. Alternative food narratives use representations of physically impaired babies born to low-wage agricultural laborers to generate anxiety around consumer health. Chapters 3 and 4 excavate US environmentalism’s eugenic legacies in order to show how representations of both reproduction and labor have historically been governed by racialized and gendered ideas about degeneracy, fitness, and the nation. Together, the four chapters probe relationships between “the terrains of production, reproduction, and imagination” that Julie Sze names as the site of contest around the overlapping domains of the ‘natural’ and the technological (135). One of the main through lines

of the project is to track these relationships as they coalesce under the contemporary form of capitalism we call neoliberalism.¹⁹

Neoliberalism describes “a new relationship between government and knowledge” that depoliticizes acts of government as technical rather than as ideological (Ong 3). This shift is rationalized economically as well as ethically, through appeals to personal responsibility (ibid. 11). While neoliberalism’s economic components are quite clearly articulated, scholars across the humanities and social sciences have also argued powerfully that neoliberal ideology has significant consequences for the formation of late twentieth-century subjecthood. One important consequence for subject-formation has been the command for neoliberal subjects “to live as if making a *project* of themselves” (Rose 149, emphasis in original), revivifying the “discredited ‘pull yourself up by your bootstraps’ immigrant motto” (Puar, “Cost” 179). In life writing about disability, this personal development plot takes the form of the “Supercrip” story, in which the disabled person triumphs over the physical adversity and psychic trauma of living with an impaired body.²⁰ This common script “removes the stigma of disability from the author but leaves it in place for other individuals with the condition in question. In effect, the narrator removes him- or herself from the category of the disabled” (Couser, *Signifying Bodies* 34). The repetition of this ameliorative narrative covers over the structural disenfranchisement of disabled people. Indeed, neoliberalism minimizes the importance of differences based on race, class, gender, sexuality, and ability by interpolating subjects as citizen-producers. It privatizes and monetizes social, reproductive, and subject-making activities (Guthman, *Weighing In* 55).

One of the ways this is achieved is through the prioritization of flexibility over the stigmatization of difference. Under neoliberal social-economic regimes, flexibility is “cherished and cultivated...an object of desire for nearly everyone’s personality, body, and organization”

(Martin xvii). While some have suggested that this heralds a post-racial, post-feminist future, the politics of flexible bodies merely shifts the grounds of power relations. With the rise of neoliberalism as the dominant ideology of economic and social life, human rights are no longer “understood as the responsibility of a benevolent state; rather, rights are earned through individuals’ *actively* demonstrating their worth” (Irving 157, emphasis in original). That is, what were once framed as human or civil *rights* become individual *responsibilities*. This shift can be seen quite clearly in the domain of healthcare, as an ethic of care for citizens’ bodies is replaced with a moralizing imperative to personal maintenance that can be characterized as public healthism (Pitts-Taylor 639–640).²¹

One of the ways that neoliberal subjects demonstrate their value is by “perform[ing] wholeness through each recurring crisis” (McRuer 17). But some bodies and some subjects are already presumed to be more whole than others, just as some bodies and some subjects are presumed to be more flexible than others. The ideology of self-care, or the self-as-project, demands that persons with illnesses or disabilities exercise flexible management of their bodies to “improve” their situations, even as illness or disability is understood to signify already the failure of self-care (Pitts-Taylor 646; Galvin 112). The domain of health demonstrates how flexibility and therefore rights become “stratified” along axes of embodied social difference (Pitts 197). The injunction to flexibility thus has a direct impact on understandings of disability and trauma in our contemporary lifeworld.²² “Poisoned Subjects” works through the implications of the neoliberal culture of flexibility for norms of being and embodiment as they are refracted through issues of re/production.

Poisoned Subjectivity and Ecocritical Futures

The array of life narrative forms represented in the following chapters—among them legal testimony, medical records, speeches, interviews, digital performance art, photography, *testimonio*, anthology, and auto/biography—demonstrate the centrality of personal testimony to embodied health and environmental movements. As Gillian Whitlock explains, “autobiography is fundamental to the struggle for recognition among individuals and groups, to the constant creation of what it means to be human and the rights that fall from that, and to the ongoing negotiation of imaginary boundaries between ourselves and others. Life narrative plays a vital role in the public sphere as it deals in and through private lives” (10). Yet I share with Ann Jurecic a sense that “the pervasive awareness of risk in the contemporary world has...altered the cultural work of life narratives” (20). What does it mean to be human in a world without refuge from the specter of toxicity? Who has the right to assess and assert toxic risk to private lives or public health? Where do environmental and testimonial justice intersect?

“Poisoned Subjects” contributes to what I hope will be a growing conversation between life writing studies and the ecocritical study of toxic discourse as a component of the risk society. Life writing studies offers crucial insights into the formation of autobiographical subjectivity in toxic life narratives. I draw together issues of witnessing, testimony, and trauma that have not previously been foregrounded in the growing conversation within the environmental humanities about toxicity with concerns about embodiment and normativity central to feminist disability studies. As such, I join a growing push for ecocriticism’s greater critical engagement with literary-theoretical lenses that take a systems approach to understanding and critiquing the marginalization of certain kinds of bodies and subjects. The fields of disability, queer, transgender, critical race, and fat studies are vital to many of the central issues animating

ecocriticism today: posthumanisms, new materialisms, urban space, food systems, oceans, and of course environmental justice. Attending to personal testimony and testimonial justice heightens toxic discourse's unstable "social and ethical import" (Buell 48; see also Alaimo 89). It requires ecocritics to reconsider vocabularies of purity and pollution, normality and ability that have long held sway in environmental writing and criticism, forging links between conceptions of environmental, disability, and testimonial justice.

Notes to Introduction:

¹ “A Place for Stories,” 1349-1350.

² *Love Canal: The Story Continues...*, 19.

³ The Love Canal community was developed atop a former chemical and toxic waste disposal site of a subsidiary company of Occidental Petroleum. Residents experienced what they believed were unusually high levels of miscarriage, asthma, cancer, and other illnesses, and they collaborated with epidemiologists in a community-based effort to substantiate their observations. After documenting geographical patterns of illness that matched local groundwater flows, Love Canal residents agitated for both toxic remediation and monetary compensation for their decimated property values. President Jimmy Carter declared Love Canal in a state of emergency in 1978 and ordered federal disaster assistance for the remediation of the disposal site. However, when neither state nor federal officials would take responsibility for buying them out of their mortgages and relocating them to uncontaminated areas, residents briefly held two EPA officials hostage at the headquarters of the Love Canal Homeowners Association in May of 1980. Ultimately, the Love Canal disaster led to the passage in December 1980 of the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as the Superfund Act.

⁴ *Love Canal* was reissued in 1998 with the subtitle “The Story Continues...” and in 2011 as *Love Canal: and the Birth of the Environmental Movement*. Citations in this dissertation refer to the pagination of the 1998 edition.

⁵ Karim H. Karim defines topos as the “referential basis of interpretation” that “is essential in making a textual account seem coherent within a particular culture’s norms” (153). Betsy Hartmann and colleagues argue that the “reservoir of core ideas” that a topos represents “often serve[s] to naturalize discourses of exclusion, making them seem commonsense and apolitical” (13).

⁶ Phil Brown defines community, or popular, epidemiology as “the process by which laypersons gather scientific data and other information, and also direct and marshal the knowledge and resources of experts in order to understand the epidemiology of disease. In some of its actions, popular epidemiology parallels scientific epidemiology, such as when laypeople conduct community health surveys. Yet popular epidemiology is more than public participation in traditional epidemiology, since it emphasizes social structural factors as part of the causal disease chain. Further, it involves social movements, utilizes political and judicial approaches to remedies, and challenges basic assumptions of traditional epidemiology, risk assessment, and public health regulation” (“Popular Epidemiology” 366).

⁷ While neither directly references Buell’s work, literature scholars Michael Bryson and Ann Jurecic both address the role of risk in autobiographies of toxic exposure. Bryson considers ecologist Sandra Steingraber’s autobiographical exploration of environmental cancer *Living Downstream*, while Jurecic reads Susanne Antonetta’s memoir of illness and environment *Body Toxic* as what she calls a “risk narrative.” In these life narratives that combine the life story with ecology, Bryson sees a heightened “tension between the subjectivity of autobiography and the ostensibly objective description of scientific processes and analysis of experimental data,” depicting science as a process of creative inquiry (171). Jurecic likewise considers Antonetta’s “experiments with layered and spiraling narrative” as an attempt to represent what Anthony Giddens would call the ontological insecurity of life in the risk society (23). In their readings of

these risk narratives, neither Jurecic nor Bryson marshals the full depth of autobiography studies. The only sustained attempt to bring life writing studies and toxic discourse into conversation remains the chapter on “material memoirs” in literary critic Stacy Alaimo’s 2010 *Bodily Natures: Science, Environment, and the Material Self*. Material memoirs, which foreground the embodied subject of autobiography, “forge new ways of knowing about our bodies and our selves;” they interrogate divisions between lay and expert knowledge, “offering up personal experiences as ‘data,’ as the author examines her own life story through a scientific lens” (87).

⁸ *Love Canal* is discussed by Ursula Heise and Lawrence Buell; *Refuge* by Buell and Greg Garrard; *Living Downstream* and *Having Faith* by Buell, Garrard, Heise, Stacy Alaimo, Michael Bryson, Giovanna Di Chiro, and Bernice Hausman; *Body Toxic* by Alaimo, Heise, and Ann Jurecic; and *Cancer Journals* by Alaimo.

⁹ The exception that proves the rule in this case is Stacy Alaimo.

¹⁰ Beginning in the first chapter of *Silent Spring*, Carson uses her audience’s familiarity with the ongoing threat of nuclear disaster in Cold War America to warn against the dangers of World War II’s chemical legacy:

Strontium 90, released through nuclear explosions into the air, comes to earth in rain or drifts down as fallout, lodges in soil, enters into the grass or corn or wheat grown there, and in time takes up its abode in the bones of a human being, there to remain until his death. Similarly, chemicals sprayed on croplands or forests or gardens lie long in soil, entering into living organisms, passing from one to another in a chain of poisoning and death...As Albert Schweitzer has said, “Man can hardly even recognize the devils of his own creation.” (6)

Nobel Peace Prize Laureate Albert Schweitzer, whose widely circulated 1954 Nobel lecture addressed the need for stable peace after two world wars, is often credited with helping to spark the anti-nuclear activism of the late 1950s and 1960s. His 1957 Call to Conscience influenced *The Saturday Review* editor Norman Cousins to co-found The Committee for a SANE Nuclear Policy, now Peace Action. In *Love Canal*, Gibbs repeatedly deploys the bomb as a metaphor for toxic risk and for the community’s response. “[T]he Love Canal chemical time bomb was ticking away,” Gibbs narrates. “Hooker’s time bomb was ticking away. You couldn’t see the chemicals and you couldn’t touch them” (109).

¹¹ Love Canal residents did collaborate with a cancer researcher from the University at Buffalo, Beverly Paigen, to collect and analyze their data.

¹² Smith and Watson distinguish between four types of “autobiographical ‘I’s’”: the historical “I,” the narrating “I,” the narrated “I,” and the ideological “I” (*Reading* 71–79). In the production of poisoned subjecthood, we might say that both the narrated “I” (the subject whose experiences are remembered and recounted in the life narrative) and the narrating “I” (the narrational character who does that remembering) manage challenges to their expertise or credibility as assessors of toxic risk.

¹³ I am referencing the text of “Principles of Environmental Justice” reprinted as Appendix A to Robert Bullard’s 2005 edited collection *The Quest for Environmental Justice*.

¹⁴ I recognize significant overlap between the categories of illness and disability, for reasons that should become clearer as I unpack questions of embodiment, testimony, and justice throughout the dissertation. I will often link these terms together, even when the literature I am citing uses only one term or the other. When writing about personal accounts of illness or disability, I try to reflect the subject’s own language.

¹⁵ Following standard practices within some disability studies circles, I use “impairment” to refer to forms of embodiment or enmindment that are considered and named by medical practice as non-normative or aberrant, while I use “disability” to refer to the social meanings constructed around bodily and mental difference. See note 18 below.

¹⁶ For historical background on the emergence of the interdiscipline of disability studies, see Dan Goodley; Lennard Davis, “Normality, Power, and Culture,” among others. On feminist disability studies, see Kim Hall; Jenny Morris; Alexa Schriempf; Rosemarie Garland Thomson, “Integrating Disability;” Susan Wendell, *Rejected Body*.

¹⁷ The United States signed the UN CRDP in 2009 but has yet to ratify. Conservatives have fought ratification on the grounds that Convention provisions affirming the right to reproductive health care and the right to education threaten efforts to restrict abortion and to protect educational sovereignty (particularly homeschooling), respectively. In July 2014, the Senate Foreign Relations Committee voted the treaty out of committee in a vote of 12-6, but ratification was not brought to a floor vote.

¹⁸ The idea of an impairment-disability system responds to conventional understandings that disability is located in a pathologized or deviant body. Disability studies explicitly critique the medical model of disability, which “defines disability as an individual defect lodged in the person, a defect that must be cured or eliminated if the person is to achieve full capacity as a human being” (Siebers, *Disability Theory* 3). Related to the medical model is the symbolic paradigm of disability, which interprets impairment as a sign of moral deviance or sinfulness. Together, the medical and symbolic models shape popular understandings of disability as a personal obstacle, arousing pity or, when overcome by exceptional individuals, admiration for the disabled person’s perseverance and moral fortitude.

By contrast, the social model locates disability outside the body in inhospitable environments. Disentangling impairment and disability, with “impairment as the medically defined condition of a person's body/mind, and disability as the socially constructed disadvantage based upon impairment” (Wendell, “Unhealthy Disabled” 164), the social model offers a structural critique wherein the label of dysfunction adheres to disabling institutions and infrastructure rather than individuals with impairments. The social model offers the promise of relocating stigma away from disabled individuals, but scholars like Tobin Siebers have criticized this paradigm as “unidirectional” (*Disability Theory* 25). As it rightly shifts the responsibility for disability away from individuals onto socio-political conditions, a strictly social model leaves little room for thinking through the ways that bodies also shape environments. Disability studies scholars have long critiqued the social model as a blunt instrument that does not adequately account for the complex interaction of bodies and environments, impairments and disabilities (eg. Hughes and Paterson; Mintz; Siebers, *Disability Theory*; Donaldson). “One paradoxical consequence of its strict divide between impairment and disability,” according to Susannah Mintz, “is that the social model ends up constructing the body in much the same terms as those of the medical model it hopes to resist. The separation between body and culture tends to reinstate a problematic mind/body binary and renders the body of the social model ‘an ahistorical, pre-social, purely natural object’” (quoting Hughes and Paterson 3).

¹⁹ Increasingly, scholars have cautioned against applying the undifferentiated label of “neoliberalism” to the point of meaninglessness. Neoliberalism can—and in fact, many would argue, should—be taken to encompass nearly all aspects of contemporary existence in many parts of the globe. In no way does this surfeit of meaning render “neoliberalism” an empty

signifier. Instead, the task is to show clearly how “[n]eoliberalism always articulates with particular social-environmental contexts” (J. Harrison, “Abandoned Bodies” 1200). In this dissertation, I am chiefly concerned with the value placed on flexibility in the late capitalist lifeworld. Each chapter teases out how and of whom flexibility is demanded (or to whom it is denied) as part of a systems approach to understanding the landscape of toxic risk and testimony.

²⁰ Joseph Shapiro coined the term “Supercrip” in his 1993 *No Pity*. On Supercrip as a core rhetoric in contemporary representations of disability, see Jay Dolmage’s *Disability Rhetoric* and G. Thomas Couser’s *Signifying Bodies*.

²¹ Robert Crawford defines healthism “as the preoccupation with personal health as a primary—often *the* primary—focus for the definition and achievement of well-being; a goal which is to be attained primarily through the modification of life styles” (368). See chapter 3 for a more detailed discussion of healthism.

²² Note the difference between flexibility as an ideology used to control *bodies* as a form of neoliberal subject-making and flexibility as it is deployed in Universal Design (UD). UD is a design phenomenon and epistemology that seeks to reconfigure design practices to cater to users with a wide array of bodies and abilities, rather than a disembodied ideal user. UD as a design phenomenon is organized around seven foundational principles: equitable use; flexibility in use; simple and intuitive use; perceptible information; tolerance for error; low physical effort; and size and space for approach and use (Center for Excellence in Universal Design np). Here, flexibility is a feature of *design*, not subjects. Flexible designs accommodate a range of users by providing adaptability to different methods of use, to right- or left-handed access, to different paces of use, and by facilitating accuracy and precision for different users (*ibid.*). This is not to set up a false binary of “good” versus “bad” kinds of flexibility. As Aimi Hamraie shows, UD has historical roots in biological determinism, scientific racism, and eugenics through its connection to anthropometry. Unearthing these connections, Hamraie shows how UD intervenes in its own history to forge new ethical relationships of knowledge production in design fields. Flexible design attempts to subvert the normate by recognizing and facilitating different methods of interaction between bodies and environments, while the injunction to bodily flexibility makes interaction a problem of the individual body. Some scholars have also critiqued the language and logic of accommodation in which UD participates; see Mitchell and Snyder.

Chapter 1

Narratives of Diethylstilbestrol Exposure

When thousands of doctors began prescribing a drug intended to improve pregnancy outcomes to as many as 5 million patients in the 1940s, most medical professionals believed they were conforming to the highest standards of care. Few patients, one imagines, questioned the wisdom of the gynecologists and family practitioners who told them that this little white pill would “save” their babies (Langston 58; Fenichell and Charfoos 66). By the mid 1970s, however, the situation looked drastically different. That little white pill, diethylstilbestrol, had been proven to cause a rare cervical cancer in young women exposed as fetuses to the drug their mothers had taken, and studies continued to demonstrate additional health risks.

Diethylstilbestrol, known as DES, has since been called “the American thalidomide” (LuEllen Blum in Braun 40).¹ One woman who developed cervical cancer as a result of exposure compared her experience to that of a young man returning from war without a limb—she was a casualty of “the DES Wars” (Braun xiv). In the 1940s, doctors had been saving babies; by the 1970s, 1980s, and beyond, women who took the drug, and their children, came to see themselves as “exposed” to what turned out to be a toxic chemical. They were victims poisoned by a pharmaceutical industry that cared more about profits than patients. They sought to get the word out about DES, to make their stories heard, and to gain compensation from the industry they blamed for their injuries.

Like all people who seek recognition as having been exposed to toxic chemicals, women and men affected by DES had to “make a case” for themselves as poisoned subjects. Personal testimony has played a significant role in shaping the cultural script around DES, whether offered through legal testimony, news media, documentaries, or autobiographical writing. The discourse of DES has focused almost exclusively on the figure of the DES daughter—women exposed in utero who sued pharmaceutical companies, founded action networks, and lobbied for research funds, speaking out about how the drug (and the medical model that supported it) had impacted their lives. Sociologist and DES researcher Susan Bell explains that “DES daughters’ stories have the potential for forging links between DES daughters and providing support to each other as well as connecting the personal experiences of individuals to public issues of social structure” (11). These connections comprise the heart of the work of the embodied health movements whose life narratives are the subject of this dissertation.

The DES embodied health movement, like the multiple chemical sensitivity and alternative food movements I discuss in chapters 2 and 3, connects individual stories to wider social structures by drawing on the toxic discourse that took hold in the second half of the twentieth century. Situating a dangerous drug within burgeoning environmental and consumer protection rhetorics, the narrative structures of toxic discourse allowed DES daughters to move beyond a critique of the medical-scientific establishment by claiming a shared identity as poisoned subjects. Although a prescription medication may not immediately resonate with Cold War-based anxieties about the nuclear threat or the images of superfund sites that dominated the toxic imaginary in the wake of Love Canal, DES narratives employ all the familiar motifs of toxic discourse. DES-exposed people’s stories recount the difficult realization that a loving mother’s actions unwittingly resulted in injury, pain, or death of her child (Buell’s “shock of

awakened perception”). Many express a newfound suspicion of the medical establishment or widespread distrust of chemicals—from food additives to pesticides to pharmaceuticals—as narrators begin to suspect that there can be no guarantee of safety when exposed to putatively benign chemicals. These themes are often gothified, accentuated with lurid descriptions of injured bodies and the uncaring or simply misguided medical professionals who treat them. In one memorable account, upon viewing a DES daughter’s cancerous vagina for the first time, a doctor shouts, “You look like chopped meat in there!” (Bichler 26).

Most important, early DES narratives in particular stage a moral drama on a David versus Goliath scale, a strategy for framing toxic struggles that would have been familiar to reading publics in the late 1970s and early 1980s during widespread media coverage of the Love Canal disaster. This image of an individual struggling against a mighty corporate structure is central to the collective illness identity DES daughter. As DES-exposed women and their allies challenged the medical establishment to develop new models of patient care attentive to embodied knowledges and fought for compensation from pharmaceutical companies in court, they pitted their own illness experiences against the knowledge and testimony of mostly male experts. One DES daughter recalls “a doctor who testified [during her civil suit] that DES does not cause clear cell cancer. Later someone told me that the doctor had provided ‘expert testimony’ for 30 other DES cases. I was told he earned about \$8,000 every time he testified” (Margaret Perrotte in Braun 32). In the face of exceptional corporate money and power, DES daughters cast themselves as heroic individuals telling “a true story of tragedy and triumph,” as is emblazoned on the cover of one DES autobiography.

Rhetorics of toxicity and their moral stakes powerfully shape the kinds of stories available to poisoned subjects as they make a case for and make sense of their experiences with

toxicity, illness, and disability. The figure of the DES daughter, the heroic plot of a David versus Goliath drama, the potent narratives of trauma and post-traumatic stress that gained momentum in the 1980s all contribute to a dominant narrative of what it means to be DES-exposed. Even as this narrative has emerged out of the stories of people affected by diethylstilbestrol, it becomes a paradigm for future stories, shaping the DES embodied health movement and its associated illness identities. In many ways this has contributed to the movement's successes. Yet, as we shall see, the predominant DES narrative also functions as a norming project that privileges some stories—and some bodies—over others. This chapter and this dissertation ask: What are the stakes of claiming a politicized identity around an illness experience? Which stories and which people are excluded when stories of illness, toxicity, and trauma become familiar? The DES movement has been heavily invested in narratives of threatened reproductivity and relationality, which uphold traditional models of the family and women's place within it, even while they issue challenges to the medical and corporate communities that are rooted in feminist practice.

Legacies of DES

In 1938, the British biochemist Sir Edward Charles Dodds and his team synthesized diethylstilbestrol, the first drug to be marketed as a synthetic estrogen supplement. Estrogen injections had become popular during the 1920s as a treatment for the symptoms of menopause, which was viewed as a curable feminine disease that caused nervousness, irritability, irrationality, and general troublesomeness. Prior to Dodds's innovation, "natural" estrogen sources (mainly animal urine) were scarce and their preparations complex, making the cost of such treatments prohibitively high for all but the very wealthy. The discovery of a synthetic alternative, which appeared to be substantially the same as the natural hormone in its chemical

structure and in its effects, was welcomed by many in the medical community both because of its lower cost and its easy-to-administer pill form.²

For a number of possible reasons—including that Britain’s Medical Research Council, which funded Dodds’s research, prohibited patenting the products of publicly-funded drug discovery projects—Dodds did not patent his new estrogen. Thus, less than a year after the journal *Nature* published news of the discovery, pharmaceutical companies in the United States had submitted New Drug Applications petitioning the dozen-year-old Food and Drug Administration to approve diethylstilbestrol as a treatment for menopause symptoms.³ After two years of opposition and deliberation, the FDA approved the drug in 1941, although they took the then-rare precaution of making it available by prescription only. Prior to 1938, the FDA had had no authority to regulate new drugs based on safety, and DES was an early test case for their new mandate. “Regulators had good reason to be cautious,” explains DES researcher and historian Nancy Langston, “because little consensus existed concerning the right of the federal government to regulate industry in the name of public health” (32). In retrospect, it seems clear that the FDA was not cautious enough, since scientific consensus at the time recognized estrogens in general, and DES in particular, as a potential human carcinogen. In 1940, during the period when the FDA was reviewing New Drug Applications for DES, the *Journal of the American Medical Association* “warned against the indiscriminate and prolonged use of estrogens and...emphasized the possible occurrence of mammary carcinoma in patients” (qtd in Fenichell and Charfoos 32). Dodds himself issued similar warnings about long-term use of diethylstilbestrol.⁴

Yet the drug was approved, and it would be marketed for expanded human use after World War II. Some 200 manufacturers produced the hormone under more than 300 trade names

in 30 countries to stunt the growth of tall girls, suppress lactation, provide emergency contraception, and treat anorexia, acne, and menopausal syndrome. Most important, DES became widely used as a prophylactic against miscarriage for so-called “habitual aborters” and other women considered to be at risk for miscarriage. Some studies, especially those conducted by the influential Harvard researchers George and Olive Smith, appeared to suggest that DES could help some women at risk for miscarriage to complete their pregnancies. These claims were being vigorously challenged in the medical community by the early 1950s, as paper after paper questioned the Smiths’ methods.⁵ Nevertheless, drug manufacturers were soon advertising the drug as a panacea that could “make a normal pregnancy more normal,” despite evidence that DES exposure might actually increase the chances of miscarriage (Langston 56). Scientist and former pharmacist Theo Colborn has written that the prevailing attitude was that it was “medically correct, even stylish, to take DES just to have big, fat babies” (ix). Women prescribed the drug were sometimes told that it was a vitamin.⁶

At the same time that the *Journal of Obstetrics and Gynecology* was running advertisements claiming that DES produced “bigger and stronger babies,” farmers were beginning to treat livestock with synthetic estrogens in order to produce bigger, beefier cows and chickens.⁷ Since World War II, diethylstilbestrol had been used to treat veterinary conditions in livestock whose meat would not be used for human consumption. In 1947, the FDA expanded its approval to cover pellet injections used for plumping and chemically caponizing chickens. By 1954, DES was approved as a cattle feed additive, with promises that it would increase growth up to 35 percent. Amidst post-war economic growth and technological development, DES seemed to hold the promise of a more re/productive—a bigger, stronger, and therefore better—nation.

Ultimately, the drug prescribed to ensure women's successful reproduction actually precluded many of those women's daughters from becoming pregnant and carrying fetuses to term. Today, the medical community recognizes DES as a carcinogen—the first carcinogen proven to pass through what had once been thought of as an impermeable placental barrier, meaning that both pregnant patients and their unborn children were put at risk (Fenichell and Charfoos 90). It is also a known teratogen. Literally meaning “monster-making,” teratogens cause malformations in developing embryos. DES daughters—women who were exposed in utero when their mothers took the drug—are at increased risk for reproductive tract abnormalities (especially T-shaped or three-horned uteri), vaginal and cervical clear cell adenocarcinoma, breast cancer, endometriosis, miscarriage, ectopic pregnancy, and infertility. Less research has been done on DES sons, who may face increased risk of structural abnormalities, including undescended testes and microphallus, and testicular cancer. Pregnant women who took DES (known as DES mothers) have also experienced increased rates of breast cancer. Animal research and longitudinal cohort studies suggest that DES exposure carries third-generation health impacts; DES grandchildren may be at increased risk for hypospadias, delayed menstrual regularity, and higher rates of tumor growth.⁸

These health impacts were first brought to public attention in 1971, when the *New England Journal of Medicine* published a paper linking DES to a puzzling cluster of clear cell adenocarcinoma of the vagina in women under the age of twenty-two in the Boston area. Previously, only women over fifty were considered at risk for this form of cancer so rare that only seven cases had been documented in medical literature (Fenichell and Charfoos 85). Arthur Herbst, who coauthored the 1971 paper with fellow Massachusetts General gynecologist Howard Ulfelder and epidemiologist David Poskanzer, began to collect data in a registry of clear cell

adenocarcinoma, which is often called the Herbst Registry after its founder. Data gathered through the registry suggests that DES daughters have a 1 in 1000 chance of developing clear cell adenocarcinoma of the cervix (unexposed women are considered at no risk). After the publication of Herbst's study, the FDA issued an alert in 1971 that DES was contraindicated for use during pregnancy, but it did not withdraw approval for human use until 2000. However, diethylstilbestrol has been banned for use in chickens and lambs since 1959 and as a cattle feed additive since 1979.⁹

Throughout the 1970s, many women and some men affected by DES began to share their stories with one another and with the media, to create action networks, and to pursue legal cases against the pharmaceutical companies that produced and distributed the drug. The first DES suit was filed in 1974. In 1979, Joyce Bichler became the first DES daughter to win monetary damages from a drug company, Eli Lilly, for their role in manufacturing and promoting the diethylstilbestrol that caused her to develop clear cell adenocarcinoma of the vagina and cervix. Other exposed women continued to bring suit against pharmaceutical companies throughout the 1980s, testing legal theories of liability and class action. In the 1990s, groups like DES Action and DES Cancer Network lobbied for federal funding of further research into the long-term effects of DES exposure. As a result of these efforts, President George Bush signed the DES Education and Research Amendment into law in 1992. In 1998, President Clinton signed the DES Reauthorization bill. These pieces of legislation provided federal funding for DES research and education to be carried out by the National Cancer Institute and the Centers for Disease Control. The National Cancer Institute's cohort studies continue to research the long-term effects of diethylstilbestrol exposure on DES mothers, daughters, sons, and grandchildren.

Embodied Health, Political Identity

One way to tell the story of DES is through the medical-scientific data that projects like the Herbst registry and the National Cancer Institute cohort studies provide. But DES-exposed people have insisted on the importance of telling their own stories, which simultaneously make use of and resist scientific data and ways of knowing. This emphasis on personal storytelling is characteristic of embodied health movements. The DES embodied health movement has centered around the collective illness identity of the DES daughter, which “names and thus provides the possibility of understanding the effects” of women’s in utero DES exposure (Bell 31). Other illness identities have developed around DES exposure, including DES son, DES mother, and DES grandchild. But the identity DES daughter has been the focus of the DES movement and has inflected its multiform strategies, from forming activist organizations to publishing newsletters to political lobbying and letter-writing campaigns in support of research funding. In an EHM, in which activists collaborate with the scientific community to shape research and medical practice, collective illness identities have the potential to direct prevention, treatment, and research strategies that may result from these collaborations. This is in part because the contours of a politicized collective illness identity determine the kinds of stories that can be told about what it means to be ill as an individual and as a part of a particular illness community.

The centrality of DES daughters has had two important consequences for the stories of the DES embodied health movement. First, it privileges the illness experiences of people exposed to DES in utero as the focus of embodied politics. DES entered bodies and economies through multiple routes, and some of the health consequences of these other types of exposures have been documented. For instance, Fenichell and Charfoos note that workers involved in the drug’s initial manufacture experienced impotence and gynomastia—the development of female

characteristics, including breast growth, in men—after coming into contact with DES dust (19). Male workers exposed to DES-enhanced livestock feed experienced similar bodily changes. Studies in Puerto Rico and Italy suggest that consuming DES residues in meat may have triggered early puberty in girls and breast growth in young boys (Langston 119). Novelist Ruth Ozeki dramatized human exposure to diethylstilbestrol through cattle feed and beef in *My Year of Meats*, a novel that links the pharmaceutical industry to agribusiness and places both in context with the transnational migration of commodities, narratives, and people. But the dominant narrative of DES has not included people exposed to the hormone through consumption or through their roles in processes of production, focusing instead almost exclusively on reproduction.

Second, and relatedly, the collective illness identity DES daughter locates both illness and women relationally within the family. The less common “DES cancer daughter” further identifies women with illness and illness with the parent-child relationship. These phrases serve to distinguish women exposed as fetuses from women who took the pill as adults (DES mothers), who face a different kind of health risk. They also constitute a particular kind of rhetorical appeal for protection. It is a gesture toward what cultural theorist Lauren Berlant calls fantasies of “infantile citizenship,” which are often “condensed” into the figure of the little girl who is somebody’s daughter. “It is in her name as future citizen that state and federal governments have long policed morality around sex and other transgressive representation,” Berlant argues (*Queen of America* 58). The feminine, infantile citizen is defined in opposition to, and in need of protection from, adult male (sexual) immorality. For Berlant, appeals to protect the little girl as future citizen are misogynistic fetishes used to police adult women’s and minority sexualities.

If the identity DES daughter invokes fantasies of infantile citizenship, this is an interesting tactic for an embodied health movement driven by women on behalf of women, one with ties to the second wave feminist movement. The rhetorical value of this kind of appeal is best understood by placing “DES daughter” within the context of the toxic discourse emerging in the late 1970s and early 1980s in the United States, as the DES embodied health movement was taking form. As described by Lawrence Buell, one of the primary motifs of toxic discourse is “moral passion cast in a David versus Goliath scenario.” Buell traces this topos to late nineteenth- and early twentieth-century muckraking and other urban workplace reform initiatives, which traded on the potent “threat of hegemonic oppression” posed by industry (40–41). Situated within this tradition, we can see that the moniker “DES daughter” positions women exposed to the hormone in utero as both morally righteous and under threat by a pharmaceutical industry that put them at unnecessary risk. It is a position strategically employed in DES narratives to portray women who developed cancer as a result of DES exposure as poisoned subjects who need—and, importantly, who *deserve*—protection under the law.

As we shall see, then, DES life narratives focus on themes of gender, relationality, and reproduction, and these central topics do complex work for embodied health politics. These are not static terms within the DES embodied health movement but shift depending on who is deploying them, when, and in what contexts. Looking at multiple DES narratives thus reveals heterogeneity and change over time within the movement. The readings that follow situate personal testimony about DES exposure as toxic life narratives within the DES movement and the broader anti-toxics political work that gained momentum throughout the second half of the twentieth century. I introduce the concept of alternate jurisdictions—different sites of autobiographical witnessing that respond to different experiences of trauma and raise important

questions about ethics and justice in testimony—as a means of reading DES narratives, especially those that explicitly engage the law as a strategy for DES activism. Embodied health movements seek ways for people to work through and around challenges to their embodied knowledges and experiential ways of knowing. Autobiographical testimony is one site of this contest.

Early DES Narratives: *DES Daughter and Daughters at Risk*

In 1981, ten years after Herbst and his colleagues published their paper in *The New England Journal of Medicine* establishing the link between diethylstilbestrol and clear cell cancer, two book-length life narratives of DES exposure were published. Joyce Bichler's and Stephen Fenichell and Lawrence Charfoos's early DES daughter life narratives each offer a heroic plot promising victory for the passionate underdog who takes the pharmaceutical industry to court to hold them accountable for the toxic legacy of DES. With the aid of the legal system, DES daughters like Joyce Bichler can tell “a true story of tragedy and triumph,” in which a moral victory helps to compensate for their physical and psychological injuries. What is the relationship between law and literature? How do subjects tell their stories in these different jurisdictions? How do witnesses perform justice through the production of testimony? These are central questions for embodied health movements as life writing extends, reworks, and subverts juridical forms of testimony and adjudication.

DES Daughter: The Joyce Bichler Story (1981) recounts the first successful lawsuit against a major manufacturer of diethylstilbestrol. It is a first-person autobiographical narrative of Joyce Bichler, a young woman who developed clear cell adenocarcinoma of the vagina and cervix as a result of the DES her mother took while pregnant. Doctors decide that the best course

of treatment for Joyce, as for many DES cancer daughters, is a full hysterectomy and a vaginectomy. After recovering from her surgeries, Joyce brings a civil suit against Eli Lilly under a legal theory known as joint liability: even though she cannot prove that her mother took Lilly-brand DES, Joyce successfully argues that major pharmaceutical companies, including Eli Lilly, acted in concert by pooling their research and resources in their quest for FDA approval of DES. She is thus able to sue the company as a representative of the pharmaceutical industry on the grounds that each company that collaborated in seeking approval for the drug is equally liable for its effects. *Bichler v. Eli Lilly & Co.* was an important test of this theory that would prove effective in future DES suits and would shape the narrative of the DES movement by helping establish a clear us-versus-them dynamic, pitting individual DES daughters against not just specific drug manufacturers but all of “big pharma.”¹⁰

DES Daughter is divided into two parts. Part I describes Joyce’s medical condition and treatment within the context of her journey into womanhood: it begins with Joyce’s first menstrual period and concludes just after her marriage. This section of the book foregrounds Joyce’s personal suffering and its impact on her family; it is about “all that [she’s] been through” (84). This includes not only the pain of the cancer but also the indignities of being a patient and the trauma associated with the removal of her uterus and vagina. Part II focuses on the legal trial. In this section of the narrative we see Joyce’s perspective shift away from her personal experience with illness toward a collective identification with other DES daughters. When the *New York Post* writes a story about her suit, Joyce is initially uncomfortable with the publicity that “on one level...seemed like an invasion” (108). However, thinking about “all the other DES daughters in New York that might be reading the same article” ultimately strengthens her resolve to win her trial and publicize the DES issue (ibid.). This imagined community is made real as the

trial prompts Joyce to contact the organization DES Action, through which she develops a support network of exposed women and their families. Many of these people show up in court to listen to Joyce's testimony, and she comes to see her lawsuit as a symbolic act on behalf of this broader community. "I knew we had to win the case," Joyce narrates, "as much for them and all the other DES daughters in America as for myself. I knew I had a duty to win" (ibid.). Through the public act of complaint an act which is both accusatory and testimonial—Joyce comes to recognize her cancer and resulting reproductive injury as "not an individual issue" but "a DES issue, a women's health issue" (98).¹¹ It is here that the moral dynamics of the DES daughter-as-poisoned-subject narrative emerge.

As I have suggested, the dominant DES narrative plays out an epic moral drama. In early DES life writing like Bichler's, one of the primary sites of this drama is a legal trial. In *DES Daughter*, the trial is explicitly figured as a "battle" between "little Joyce Bichler" and the representatives of a powerful and mercenary corporation (155, 97). During his closing arguments, Joyce's lawyer instructs the jury that the courtroom "is a battlefield. And this battle is one that truly pits the individual against the mighty" (167). Joyce, too, narrates her suit in the morally-laden terms of the ordinary individual fighting the behemoth:

Just because Eli Lilly & Co. was bigger, stronger, and more powerful than we were, we reasoned, and had lots of money, there was no reason why they should be able to walk away from the DES issue without being held in the slightest degree accountable and responsible for what they had done to so many people in this country... Win or lose, we were going to take on Eli Lilly & Co., in effect the entire pharmaceutical industry, and fight them for as long as we could. (121–124)

The reader, of course, is not at pains to wonder how the fight will play out. Like Joyce's lawyer, we expect that in narrative, if not necessarily in court, "truth and justice always won" (124). As Anne Hunsaker Hawkins argues, many autobiographical accounts of illness are in fact "variations on a long-standing heroic paradigm of the struggle of brave individuals confronting

what appear to be insurmountable forces” (1–2). We can see that Joyce’s narrative does indeed follow this heroic plot: cancer and the loss of her reproductive capacity lead Joyce to take on a vilified pharmaceutical industry, but through determination—and with truth and justice on her side—she overcomes these obstacles not only for herself but also for the politicized illness community of DES daughters.

Joyce’s heroic narrative and her illness identity are structured on every level by gender. In the heroic plot of autobiography, “a hero/heroine alienated from family or home or birthright sets forth on a mission to achieve elsewhere an integration of self that is impossible within the constraints (political, sexual, emotional, economic) imposed in a repressive world and to return triumphant” (Smith and Watson, *Reading* 91). Joyce’s encounter with DES has left her alienated from her birthright as a woman; it is the changes to her sexual and reproductive life resulting from her hysterectomy and vaginectomy that Joyce identifies as “the core of what DES had done to me” (148). Her hero’s mission is to defeat the pharmaceutical industry in a court of law. The narrative achieves a comic resolution: Joyce, surrounded by her husband and family, and with the promise of wealth from her legal victory, concludes, “I had survived” (181).¹²

This conclusion suggests that the subject’s fractured sense of self has indeed been reintegrated after the trauma of her illness. The trial, while grueling, has allowed Joyce to reframe her personal trouble as a social ill and given political meaning to her experience. “If nothing else,” she thinks, “win or lose, we had an invaluable opportunity to let the American public know...The public had to know—had to be aware that this had happened and could happen again” (122). The legal trial functions within the narrative as what Jasbir Puar has described as “a recapitulation of a debilitated body” that is characteristic in narratives of neoliberal subject formation (“Cost” 179). Joyce’s trial has given her illness a greater purpose;

successfully completing her mission to inform the public and hold Eli Lilly accountable lends political, ethical, and narrative value to her illness and to her identity as “DES daughter.”

In order to achieve this recapitulation and narrate a heroic triumph over adversity achieved through legal action, Joyce must carefully navigate gender norms to portray herself as both a victim and a warrior, as feminine yet feminist. Joyce’s development as a character parallels her shifting understanding of DES from an individual to a political issue. Joyce is initially portrayed as innocent. She is sexually naïve and uses cloying euphemisms like “get into my pants” (14). She has never undergone a pelvic examination, and she worries about a doctor “poking around in [her]” (18). When she learns of her cancer she describes herself as “crying hysterically” (27). She is, in short, *girlish*.¹³

She is also politically inexperienced. Joyce’s feminist political consciousness only emerges in the second part of the narrative, which takes place after her marriage to husband Michael. It is through the ordeal of the trial that she comes to understand her illness as “a broader feminist issue that directly concerned the well-being of all women” and criticizes the women on Eli Lilly’s defense team for “working against their sisters” (149; 126). This narrative of character development allows Joyce to inhabit the positions of both feminine victim and feminist crusader: both her sexual and political awakenings are ensconced within a heterosexual relationship that, as characters in the narrative repeatedly suggest, would have been reproductive if it weren’t for DES. It is thus Eli Lilly’s negligence, not Joyce’s sexuality or her feminist politics, that undermines her ability to participate in normative femininity. This is a crucial distinction on which *DES Daughter*’s heroic plot turns.

The gendered dimensions of DES’s dominant heroic narrative are thrown into relief by another early life narrative focused on a groundbreaking legal case. *Daughters at Risk* (1981) is

characterized as “a personal DES history.” It tells the story of DES alongside a personal narrative of DES daughter Anne Needham, whose exposure led to clear cell adenocarcinoma and the surgical removal of both her uterus and vagina. Anne’s narrative is told in the third person, and the book is authored not by Needham herself but by two men connected to her legal case against White Laboratories, a manufacturer of DES. The authors are Lawrence Charfoos, Anne Needham’s lawyer, and Stephen Fenichell, a journalist who covered *Needham v. White Laboratories* and has since made a career out of writing about business ethics and corporate negligence. *Daughters at Risk* thus represents several life stories rolled into one: Anne Needham’s, whose “personal history” is referenced in the book’s title; that of Charfoos, who appears as a substantial character in the narrative and whose legal practice focused on medical malpractice; and diethylstilbestrol itself. The book is divided into three parts: Part I discusses Anne’s medical case. Part II relates Anne’s recovery, during which she decides to sue White Laboratories; it thus functions as a fulcrum between the medical case represented in Part I and Anne’s legal case, which is the subject of Part III. Interspersed throughout Anne’s narrative are chapters detailing the history of DES, including early scientific studies questioning its safety and efficacy, congressional hearings, and other legal cases against manufacturers of the drug. The narrative also offers extensive quotations from the court record of Anne’s trial.

It is through these excerpts of the court record that Anne’s own voice enters the narrative repeatedly. It’s not clear whether or to what extent Anne Needham might have participated in shaping the book, or whether she had given the authors permission to write her narrative. We can safely assume that the representation of Anne’s life is shaped by conversations with her attorney Lawrence Charfoos and by her legal testimony. *Daughters at Risk* is thus an example of what G. Thomas Couser calls “auto/biography”: a narrative that mobilizes both biographical and

autobiographical perspectives and “focuses on the relation between the writer and a significant other” (*Vulnerable Subjects* ix). Auto/biographical relationships are often personal, but these life narratives may also emerge from professional relationships such as those between doctor and patient or, as in *Daughters at Risk*, lawyer and client. Whatever the occasion of life writing, relationality in narrative makes subjects vulnerable. Some subjects enter auto/biographical relationships more vulnerable than others. Conditions such as extreme age or youth, illness and impairments, or other power imbalances between writer and subject may diminish a subject’s “capacity to take part in, examine, respond to, or resist” a writer’s representation (ibid. x). Writers of auto/biography speak *for* and *about* their subjects, and it may not be clear how much those subjects have participated in shaping either the narrative’s representation of the life or its politics.

This is a central issue in *Daughters at Risk*, where Charfoos’s professional ties to Anne Needham gave him particularly intimate access to her life story. Following Couser, I want to distance myself from the role of adjudicator of these ethical dilemmas. Rather, I ask how Charfoos’s (and, to a lesser extent, Fenichell’s) professional roles and commitments might shape the representation of Anne’s life, particularly as it relates to the gendered politics of the DES embodied health movement.¹⁴ As we would expect in toxic discourse, the narrative of *Daughters at Risk* centers on a moral contest fought on uneven grounds. Like Bichler’s narrative, published the same year, this drama plays out through the scene of the legal trial. The trial is figured as a “fight” not only against White Laboratories but against all corporations whose negligence threatens public well-being (292). When Anne visits her lawyers’ Chicago office, “as she walked between the giant buildings in the Loop, all housing major corporations, she felt as if she were taking on all of them” (141). Yet, in this David versus Goliath plot, Anne is not an active

protagonist as in Joyce in Bichler's *DES Daughter*. The legal case is presented as "a question really of public concern, not of private interest...But Anne as the victim, sitting silently in her plaintiff's chair, would remain the focus of the trial, even if she was only able to watch" (200). As in the construction of the text itself, Anne's role in the trial is presented as passive. She is silent; it is up to her lawyers to tell her DES story.

This begins before the trial, when one of Anne's lawyers calls her to a meeting to "create what he considered a viable plaintiff" (173), to shape Anne and her narrative into the kind of complaining subject likely to win compensation in a civil suit. Testimony given during the trial itself demonstrates how a viable plaintiff—like a viable auto/biographical subject—is always gendered. Anne's mother, an expert psychiatrist, and Mr. Charfoos all emphasize the trauma associated with the removal of Anne's reproductive organs at the trial. They testify that "she would have been the mother" of a family but for the surgery that "affected her ability to enter into *normal* relationships" (272, emphasis mine). Charfoos explains to the jury that Anne's hysterectomy "interferes with a normal relationship...and the next stage that is normal and God-given...to every woman in history: She will want children...She will not have her children. She will not have his children" (276, ellipses in original). Later, he characterizes "the removal of the children, the removal of the grandchildren" as a "disability"—one that warrants, in his estimation, \$40,000 in damages (277). As presented by Fenichell and Charfoos, Anne's reproductive organs were only ever a proxy for family they might have produced. Without them, Anne suffers a debilitating loss of womanhood.

In spite of this, Anne is consistently presented as normatively feminine in her appearance and behavior. The narrator describes her as "modest" and "delicate" (73; 4). She has "never been a feminist" (141). Her hairstyle and clothing are frequently described in detail, including on each

day of the trial. Anne herself is represented as always conscious of these things; before the surgery to remove her cancer, she begs the doctors not to leave a scar above her bikini line (122). Thus, Anne must be presented as simultaneously attractive and scarred, as maternal but not a mother, as a good girl who “won’t be a woman anymore” after her surgeries (80). The narrative reveals Anne’s legal claim to compensation as dependent on a specific calculus of femininity: Anne must be feminine enough to warrant sympathy for the irreparable damage to her identity as a woman.

Throughout the course of the narrative, Anne develops a politicized collective illness identity that links her to other DES daughters. When she reads an article “by a woman who called herself a DES daughter,” she is impressed by “the life of this parallel woman,” by their shared experiences and feelings of resentment (122–123).¹⁵ If Anne is at first only minimally involved in her legal case, during the trial she comes to see DES as “her issue,” one she shares with “hundreds of other women like her all around the country” (141; 292). Her fight is their fight—“There are a lot of girls out there with the same disease as me,” she tells a reporter (283). Moreover, the narrative puts DES in a broader political context by linking it to other environmental toxins, noting that Anne’s trial helps set a precedent for other consumer protection suits “in an age of toxic chemicals, air and water pollution from multiple sources, acid rain, and dangerous drugs” (288). This is an early move to situate DES within an emerging toxic discourse (Lois Gibbs’s *Love Canal* will be published within the year) that would play a significant role as the DES movement developed in the 1990s and into the 2000s.

While the DES movement can be characterized as feminist in its politics and strategies, *Daughters at Risk* carefully avoids a feminist analysis, portraying Anne as a heroic but apolitical woman. Politics, we are told, “seemed so abstract.” In fact, “Anne had never had much in the

way of political ideals or convictions. She had never been a feminist. She had been against the Vietnam War when that had been fashionable, but she really had just been following the lead of other people” (141). After her illness and her trial, Anne wants to go back to being “the average American girl” (291). But if she cannot realize her previous goals of becoming a mother and working as a nurse on a maternity ward, neither can she join other young people “casually rejecting the suburban ideal. Other young women, for a wide range of reasons, were electing to defer marriage and children. But unlike so many of her contemporaries of that time who didn’t want to settle down and have children in towns like Park Forest, Anne had no real choice” (291). But Fenichell and Charfoos offer no critique of either compulsory reproductivity or feminist choice rhetoric.

The vision of a DES embodied health movement presented here is thus more conservative than, even as it echoes, Bichler’s narrative. Fenichell and Charfoos seem more concerned with the specific details of a legal model of redress, rather than in offering the law as one tool for social action among many that the DES movement would employ. With its detailed review of DES medical literature, excerpted Congressional testimony, and accounts of other cases against manufacturers of diethylstilbestrol, the book reads like an instruction manual for future DES trials. Although the book concludes with Anne losing her case against White Laboratories on appeal, she vows to continue her fight, and readers are left anticipating the same comic resolution offered in *DES Daughter*.

In its narrative of triumph over adversity, *Daughters at Risk* narrativizes neoliberal ideologies of personal development that were consolidating at the same time as the DES embodied health movement.¹⁶ In life writing about disability, this personal development plot often takes the form of the “Supercrip” story. *Daughters at Risk* offers a version of this script—

in which physical impairment is resituated as a moral challenge over which the strong (read: worthy) will ultimately prevail—centered around the removal of the uterus as the site of victimization and the adversity over which subjects like Anne and Joyce must triumph. The heroic plot of the legal drama redeems the DES daughter of her debilitated body and brings her back within the fold of productive womanhood, even without the promise of reproductivity.

Yet the privileging of reproductive bodies is unstable in this auto/biographical narrative. Fenichell and Charfoos describe Anne’s fear that she “won’t be a woman anymore” after her hysterectomy, that “any man she married might eventually draw away because she couldn’t have a child” (80; 102). During the trial, witnesses testify to the trauma Anne must experience because she is unable to bear children. But Anne Needham is represented primarily through the words of others. Excerpts of Anne’s own testimony during her deposition and the trial do not mention a desire for children. Instead, she witnesses to the physical pain of her skin graft, the difficulty of wearing the mold that shapes her new vagina, the embarrassment of incontinence, and the “emotional drain” of knowing she has had cancer (267–270). This is not to say that the historical person Anne Needham did not experience the loss of her reproductive capacity through the removal of her uterus as traumatic.¹⁷ Only that her own narration of the story—still mediated by Fenichell and Charfoos—does not corroborate the heroic plot centered on the lost womb offered by the larger narrative of *Daughters at Risk*.

Given this slight gap, we should turn our attention to the circumstances of auto/biographical representation. If Charfoos and the rest of Anne’s legal team attempted to shape her into a “viable plaintiff,” in what ways have Fenichell and Charfoos shaped the character Anne Needham into a viable autobiographical subject? This question becomes all the more urgent when we compare the role of gender within the DES movement as represented in

the two early DES narratives I have considered here. In particular, we can see the way the neoliberal mandate of flexibility functions as a double-edged sword for woman-identified subjects. Emily Martin warns of “one of the bleakest potential consequences of these new models of the ideal flexible body—that, yet again, certain categories of people (women, people of color) will be found wanting” (xvii). The ideal of flexibility helps to explain why *Daughters at Risk* seems to have carefully excised the feminist politics undergirding the DES movement in order to better position Anne Needham and other plaintiffs as deserving subjects of redress under the law.¹⁸ Joyce Bichler, leveling charges of misogyny against doctors and lawyers, threatens to “perform—or act out—inflexibility” because she does not “adapt and perform as if the crisis had never happened” (McRuer 17). If Joyce’s outspoken feminism risks rendering her inflexible, it is precisely Anne Needham’s relative silence that makes her a flexible subject of Fenichell and Charfoos’s narrative.

As these issues surrounding auto/biographical representation suggest, gender and testimony are central concerns of the DES embodied health movement. Together, *DES Daughter* and *Daughters at Risk* raise potent questions about the relationship between two concepts in feminist philosophies of testimony: testimonial justice and autobiographical jurisdictions. In challenging medicine-as-usual, the DES movement responds to testimonial injustice. Marking a transition from an era in which medical expertise was often considered virtually infallible and in which the vast majority of medical practitioners were men, DES daughters resisted what they felt was the dismissal of their embodied knowledges by both researchers and practitioners. Efforts by DES advocacy organizations to initiate and conduct their own research were intended to ameliorate what they identified as “a gap between their intimate, firsthand knowledge of their bodies” and the knowledge validated by the medical establishment (Bell 23).

Joyce Bichler's experiences seeking medical attention for the condition that would eventually be diagnosed as clear cell cancer illustrate how the gender and relative youth of DES daughters undermined their credibility with some medical experts. One doctor assumes she is there to be fitted for a diaphragm and gives her a lecture about birth control, despite her protestations. Another is convinced that Joyce's bleeding has been caused by a botched abortion and "it was several minutes before [she] finally convinced Dr. Collier that [she] had not had any abortion" (27). Another doctor, who identifies Joyce's symptoms as those of cancer, "asked [her] a lot of personal questions about [her] personal life that made them sound like accusations" (33). In each of these encounters, Joyce's own bodily experiences are disregarded in favor of the doctors' own assumptions about young women's sexuality. Joyce is thus subject to repeated testimonial injustices that undermine her "capacity as a giver of knowledge, as an informant," a capacity that is "essential to human value" (Fricker 5). DES activists' initiatives to produce new knowledge through collaboration between exposed people and medical researchers have worked to restore these women's capacity to inform and thus reaffirm the human value of both women and ill persons as social classes.

The ethics of truth-telling and truth-hearing are at stake as well in what Leigh Gilmore calls "alternate jurisdictions" for self-representation. If the legal term "jurisdiction" describes the "authority and the power to judge; administration, rule and control; and, at its most local level, the contexts in which this happens," Gilmore argues that life narrative functions as an extra-judicial venue in which truth and consequences are assessed and knowledge about truth-telling is produced (*Limits* 43). The law is a space where certain subjects under certain circumstances—including people of color, undocumented people, women and transgender people testifying to sexual trauma—are particularly vulnerable to testimonial injustice. For these subjects, life

writing may provide a safe(r) context for telling a story of a life. But Gilmore's use of the legal term jurisdictions also signals how, as Kelly Oliver explains, in an oppressive culture, "testimony of personal experience is put on trial in a way that renders all testimony juridical as well as personal" (99). That is, even while life narrative exists outside the law, it is still subject to discourses of doubt and veracity, accusation and adjudication. "Because testimonial projects require subjects to confess, to bear witness, to make public and shareable a private and intolerable pain," argues Gilmore, "they enter into a legalistic frame in which their efforts can move quickly beyond their interpretation and control, become exposed as ambiguous, and therefore subject to judgments about their veracity and worth" (*Limits* 7). The concept of autobiography as an alternate jurisdiction suggests how the law functions as a metaphor in debates about self-representation.

Conceptions of testimonial justice and jurisdictions of truth-telling converge in literatures of litigation such as *DES Daughter* and *Daughters at Risk*, in which a legal case provides the occasion for autobiographical testimony in the form of life writing. Here, the legal imperative to "tell the whole truth and nothing but the truth" confronts the autobiographical narrator's need to "address readers whom they want to persuade of their version of experience" (Smith and Watson, *Reading* 7). Although both Bichler and Fenichell and Charfoos offer stories in which DES daughters' testimony sways juries in their favor, Joyce and Anne remain acutely aware of the challenges to their credibility *as women* that emerge throughout the course of their legal cases. For example, when Anne is deposed by White Laboratories' counsel, the coterie of male lawyers probes her about her sex life: "the tone began to change into something harsher, like a sneer, and he kept asking about men and sex, and Anne got the strong impression that this man was trying to make her out to look like a streetwalker or something, as someone kind of loose"

(145). Anne recognizes this as “a technique of humiliation” (ibid.), one that depends on strong norms of women’s sexual purity. Joyce finds herself impugned not for her apparently out-of-bounds sexuality but for her emotions. During the trial, the defense counsel implies that Joyce is “an embittered and hysterical woman” who “should not be taken seriously. It was a common ploy; men who fight for their rights are considered assertive and forceful, whereas women are seen as emotional and aggressive” (165). Even if Joyce and Anne are ultimately judged reliable witnesses in courts of law, they are still subject to testimonial injustices within the justice system.

As an alternate jurisdiction, DES daughters’ life narratives have the potential to serve as a corrective to the sexist bias apparent in their legal cases. In Bichler’s narrative, the narrating subject Joyce controls which elements of the narrative we as readers have access to and, importantly, in what order. The division of the book into two parts—the first discussing Joyce’s medical treatment and recovery, the second her legal trial—bifurcates the experience of witnessing for both the character and the reader such that the autobiographical account in Part I appears to verify the legal testimony recounted in Part II. We believe the testimony the narrated subject Joyce gives during the trial because the narrating subject Joyce has *already* borne witness for us in the first half of the book. Fenichell and Charfoos use a similar strategy, with the history of DES that is embedded in Anne’s narrative serving to further support the legal case against drug manufacturers like White Laboratories.

It is important to remember that even as they recount legal cases—or even reproduce legal testimony directly—these testimonial projects function outside the framework of the law. Gilmore argues that life writing can serve as “an alternative jurisdiction for self-representation in which writers relocate the grounds of judgment, install there a knowing subject rather than a

sovereign or representative self, and produce an alternative jurisprudence about trauma, identity, and the forms both may take” (*Limits* 143). In these early DES daughter narratives, the autobiographical is a space where a knowing subject can manipulate the grounds of judgment to bolster her claim to veracity. Life writing and the law work in tension and in tandem to further the DES embodied health movement’s aims of increasing awareness and challenging the scientific status quo. If the drama of the courtroom offers a form of redress congruent with neoliberal forms of subjecthood, life writing as an alternative jurisdiction for testimony may have the potential to challenge or reconfigure neoliberalism’s self-as-project paradigm, which minimizes the continued role of prejudice and structural inequality in shaping life stories. However, all testimony is juridical, and life writing comes with its own codes of conduct and litmus tests of authenticity.

Twenty Years Later: *DES Stories*

By the close of the twentieth century—nearly thirty years after the first Surgeon General’s warning against the use of DES during pregnancy and twenty years after the FDA banned the use of the hormone for all livestock intended for human consumption—the DES movement had consolidated and had shifted focus from the narrative of personal triumph through legal action represented in early the DES life writing I have considered here. If gruesome stories of cancer in teenage girls and corporate greed captured media attention and public interest in the 1970s and 1980s, by the early 1990s the first generation of DES daughters had reached middle age. With erroneous assertions from some medical professionals that any DES-related health impacts would have manifested by the time exposed individuals reached age 30, the sense of crisis was flagging. However, groups representing people exposed to diethylstilbestrol, including

DES Action and the DES Cancer Network, recognized the ongoing need for DES awareness and further research. Even into the 1990s, half of those exposed to the drug were believed to remain unaware of their exposure and its risks (Braun 94). Many questions also remained about the long-term effects of DES. Were DES cancer daughters at risk of recurrence later in life? What were the long-term health risks for those exposed to aggressive cancer treatments in their teens and twenties? Would a third generation—now being called DES grandchildren—face health consequences? Could the effects of DES be magnified by exposure to other estrogen therapies or endocrine-disrupting chemicals in the environment?

As DES organizations lobbied Congress for federal funding for further research into these and other questions, as well as continued educational efforts, women who were active in the movement began to circulate narratives that reflected and furthered these changing goals. Playwrights Darci Picoult and Alice Cohen wrote DES plays *My Virginia* (1991) and *Philomela's Tapestry* (1993), both of which were performed at DES organizing meetings. Judith Helfand, a DES daughter who was active in letter-writing campaigns and DES workshops, produced a documentary about her and her family's DES experience. The autobiographical film, called *A Healthy Baby Girl*, aired on PBS in 1997. While her cancer diagnosis and its treatment spanned months, Helfand's documentary tracks the ways DES shapes her familial and romantic relationships for more than five years. Likewise, the collected testimonies of men and women affected by DES that appear in Margaret Lee Braun's *DES Stories: Faces and Voices of People Exposed to Diethylstilbestrol* (2001) portray an ongoing, intergenerational crisis that remains unresolved and unresolvable through legal and regulatory structures that seemed to hold so much promise for the narrators of *DES Daughter* and *Daughters at Risk*. Through collective appeal for further research into the long-term effects of DES, they move away from an individualistic

narrative and gesture toward a broader community of people exposed to toxins and seeking environmental justice.

DES Stories is a collection of photographic and textual portraits of DES-exposed people and their families. The collection depicts 51 DES-exposed people and 24 non-exposed people in 40 portraits. Each portrait consists of a photographic representation produced by Nancy Stuart, autobiographical testimony produced by the subject, and a third-person editorial narrative written by editor and DES daughter Margaret Lee Braun, who co-founded the DES Cancer Network. The book also includes basic information about DES and its health risks, a DES timeline, and a list of resources. The testimonies are preceded by a foreword written by estrogen researcher Theo Colburn, who pioneered the endocrine disruptor hypothesis;¹⁹ an artist's statement by photographer Nancy Stuart; and two statements by Braun. The publisher has issued a disclaimer, which appears next to the copyright information and includes this statement: "The stories in the book are reported anecdotally, by persons exposed to DES and their families, and may not accurately reflect all known information about DES." Braun also cautions that the collection does not purport "to be a statistical cross-section of the DES population" (xx).

Still, *DES Stories* offers a selection of narratives meant to portray the diversity of the "faces and voices" of DES, to "represent a range of DES consequences, and a range of feelings about being DES-exposed" (Braun xx). The process of editorial curation creates an image of the representative subject affected by DES. DES is depicted as primarily a women's issue: 34 DES daughters and 5 DES sons are pictured. All pictured DES-exposed children, their parents, and their spouses appear to be white; four of the five adopted children pictured appear to be or are identified as East Asian or black. Most of the editorial comments list the profession of one or

more of the portrait subjects, and nearly all of those identified hold or once held white-collar jobs, including jobs in business, banking, education, and health care.

This seems to be a fairly accurate representation of what is known and suspected about DES exposure in the United States. It is estimated that more than 90% of DES mothers and daughters are white, and at least 70% of DES daughters have completed some college (Bell 186 n9). But these statistics are only estimates, and they likely reflect not only who had access to the kind of prenatal care that DES represented in the 1940s-1960s but also DES daughters' access to preventive and specialist medicine in the 1970s, 80s, and 90s that might have alerted them to their exposure and its attendant risks.

Moreover, these demographic estimates reflect and inflect the kinds of *stories* that can be and would be told about who is affected by diethylstilbestrol. When Judith explains in *A Healthy Baby Girl* that her mother “was the typical DES mother: white, middle class,” she both draws on and shapes the discourse around diethylstilbestrol. In a testimony collection, the process of collecting stories produces what Kay Schaffer and Sidonie Smith call an “‘ur’ narrative of victimization” (45). The voices chosen to represent a human or civil rights issue in an edited volume come to be seen as representative; their stories can easily become *the* story. The proliferation of women’s “faces and voices” represented in the anthology reflects the politicization of DES as a women’s health issue in the 1970s and early 1980s during the “second wave” of feminism in the United States. Certainly, DES-exposed daughters are known to be at risk for serious health problems and changes to their reproductive organs that may cause infertility or high-risk pregnancies for women who do conceive. But DES sons, too, have reported high incidences of testicular cancer and infertility. However, the risks to males exposed in utero have not been as thoroughly studied. Because less is known about DES sons, men have

been less likely to be aware of their exposure and to develop a politicized collective illness identity around it. Braun's collection is typical of the toxic discourse of diethylstilbestrol, reflecting both scientific fact and cultural ideas about who is affected by the drug.

In *DES Stories*, the ur narrative produced through “the accumulation of voices telling stories that conform to a similar structure” is of the trauma associated with the loss, or threatened loss, of reproductive capacity (Schaffer and Smith 45). Gaylene Fraser explains her “strong feelings of being incapacitated and infertile” when she realized she was DES-exposed, because “getting pregnant and being a mother was [her] life's dream” (in Braun 18). Pam Crist says that when women at work have baby showers, “I send a gift and don't go” (16). Andy Zatyko speaks of joy and astonishment when his DES-exposed wife becomes pregnant, because she had told him that they would probably never “have a natural child” (68). In the 39 editorial narratives about DES daughters and sons, fourteen subjects are described as having biological children, eight as having adopted children, ten as infertile, and two as having no children. The desire for children is always presented within the context of heterosexual marriage. Nineteen editorial narratives describe their subjects as married, and four portraits show DES daughters with their husbands. No non-marital or homosexual partnerships are mentioned.

One of the themes of the book is breaking silences around DES (Braun xiv, xvii), and many of the autobiographical and editorial narratives address communication between DES mothers and their children about their exposure and its impacts. DES is portrayed as a relational issue, one that both creates and disrupts bonds between (heterosexual, nuclear) family members. This is reflected in Nancy Stuart's portraits, nearly two-thirds of which feature families—mostly mothers with children—rather than individuals (Fig. 1-3). Following Marianne Hirsch, who argues that “photography's social functions are integrally tied to the ideology of the modern

family” (7), we might say that photographic collections like Braun’s can be read as a family album of the poisoned subject. Albums tell stories of relationality, binding within their pages lives that may be separated by space, time, and ideology. This means, too, that the family album “has the effect of naturalizing cultural practices and of disguising their stereotyped and coded characteristics...[I]t perpetuates familial myths while seeming merely to record actual moments in family history” (Hirsch 7). So, while Stuart’s relationship-centric family portraits may well be an accurate reflection of the subjects’ DES experiences and are undoubtedly central to the political work of *DES Stories*, they also perpetuate the myth of familiarity itself. Positioning DES daughters in their portraits among mothers, fathers, brothers, and children defines women relationally within the context of the family and reinforces the family as a heteronormative space.

The testimony collection-as-family album describes the ties that bind life stories together into a coherent narrative of illness, trauma, and reparation. This effect is heightened in *DES Stories* as Braun herself identifies as what Arthur Frank suggests we call a *witness* to DES-related illness. Braun’s own DES stories, presented in the Forward and Preface, establish the common themes that resonate throughout the testimonies collected in her volume. Foremost among these is the story of DES exposure as threatening or causing infertility and thus fundamentally incapacitating exposed women and men. This narrative appears in a substantial number of witnesses’ testimonies and structures the editorial commentaries that accompany nearly every portrait.²⁰ But the narrative is first introduced in Braun’s own testimony, in which she likens DES to a war. “Like a 19-year-old pulled off the battlefield,” she writes, “I woke up in a hospital bed forever changed. But, instead of losing my limbs, I had lost my organs, my functioning, my health” (xiii). The casualties of the “DES wars” include “the efforts it takes

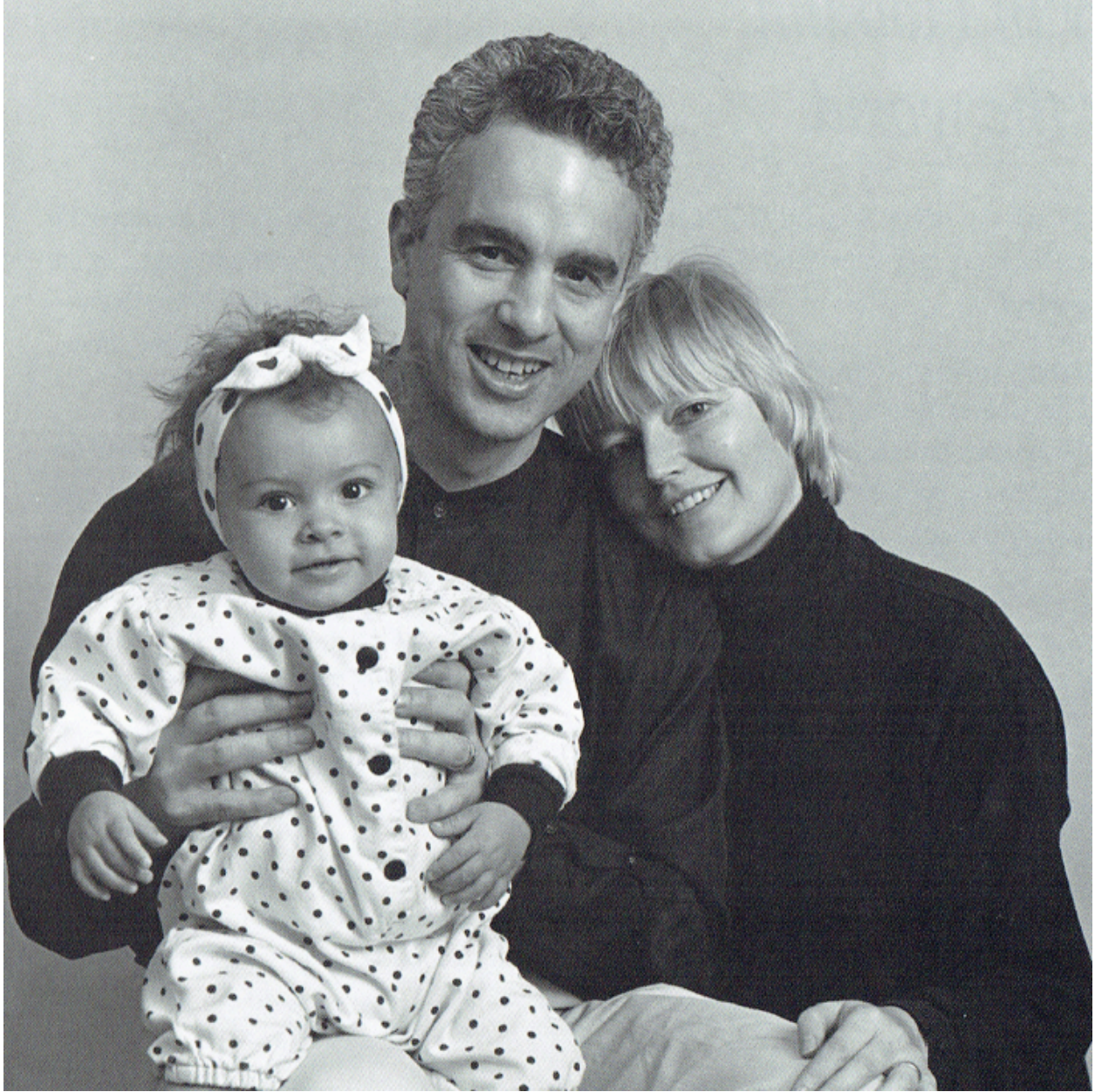


Figure 1. DES daughter Gaylene Fraser with husband, Rob, and daughter, Alexandra
Photo Credit: Nancy M. Stuart, from *DES Stories: Faces and Voices of People Exposed to Diethylstilbestrol*, by Margaret Lee Braun



Figure 2. DES daughter Judith Helfand, with mother, Florence Helfand
Photo Credit: Nancy M. Stuart, from *DES Stories: Faces and Voices of People Exposed to Diethylstilbestrol*, by Margaret Lee Braun



Figure 3. DES son Bill Kenny with mother, Mary Kenny, and sister Kathleen Sanderson
Photo Credit: Nancy M. Stuart, from *DES Stories: Faces and Voices of People Exposed to Diethylstilbestrol*, by Margaret Lee Braun

some DES daughters to have a healthy baby...the deep, daily worry over reproduction, a process that in the ordinary scheme of things is part of the ebb and flow of life...the children and grandchildren who will never be” (xiv; xix). These inaugural narratives set the tone for audiences’ engagement with the testimonies that follow. Thus, when researcher Theo Colburn reminds us to “never forget that DES has undermined the quality of life and potential of all of the

people in this book” (x), it is easy to read childlessness or infertility as a traumatic loss or a debilitating impairment, which it may not be for many people, including those whose portraits and testimonies are featured in the book.

Here we see emerge one of the problems that Schaeffer and Smith identify as arising when editors collect testimony into anthologies like *DES Stories*. First, in offering only a very limited glimpse of subjects’ lives, they tend to “‘fix’ the life and identity of the tellers in their victimhood,” so that the story of trauma becomes the overriding story of the life (45). A witness’s DES story comes to be seen as her only story. Moreover, these collections “encourage empathetic identification...at the potential cost of reducing differences to sameness” (ibid. 47). Reading photographic anthologies as a kind of family album suggests the ways these projects link disparate subjects through the bond of the illness experience. If the family photo album records shared experiences and memories, the portraits in a testimony collection imply a commonality that glosses over the ways race, gender, class, and ability shape individual experiences with DES exposure. By fostering audiences’ identification with witnesses, the collection’s album-like quality also helps readers ignore the role social factors played in determining who would be affected by DES in the first place. The human rights injunction “never again” forges a path into the future that bears a specific and often limited critical relationship with the past. In reminding readers that the tragedy of diethylstilbestrol must not be repeated (Colborn x), *DES Stories* forecloses important questions about environmental and reproductive justice, such as why working class women and women of color had limited access to what was once considered by many to be crucial prenatal care. Emphasizing sameness through repeated story structures collapses the hierarchies that helped to produce the DES crisis as a racialized, classed, and gendered phenomenon.

Another function of testimonial anthologies is to shape the agenda and ideology of a movement by presenting a chorus of voices calling for action or offering a new interpretation of the issue. In *DES Stories*, two clear political goals emerge for the DES embodied health movement as it entered the twentieth century: to advocate for further research into the long-term effects of DES exposure and to reinvigorate the DES narrative by linking it firmly to other forms of environmental toxic exposure. As indicated in the caption to each portrait, most of those represented in the anthology were exposed to diethylstilbestrol between 1950 and the mid-1960s, putting them in their 30s and 40s by the time of the book's publication—well past what has often been considered the high-risk period for clear cell cancer for DES daughters in their late teens and early 20s. But the men and women whose faces and voices are represented in *DES Stories* describe a host of other health-related concerns and questions, often emphasizing that they just don't know to what extent DES has affected their health. Witnesses suggest that their exposure may have contributed to multiple sclerosis, lupus, duplicated ureter, squamous cell cervical cancer, third-generation birth defects, breast cancer, difficulty urinating, low sperm count and motility, elevated risk of testicular cancer, and gender dysphoria. DES may not be a factor in these health issues, many acknowledge, but “it seems worth looking into” (Rachel Breitbart in Braun 88). “I would be happy to know more,” says David Mock (12). DES son David Halvorsen laments that “there's not much going on with DES sons” (76). Sue Froh would “like to see statistics on how many DES daughters have children with birth-related defects. More reproductive problems than we realize may be linked to chemical exposures” (66). Braun addresses many of these same issues in the “DES research agenda” outlined in the Appendix. “Basic, clinical, epidemiologic, and psychosocial research are critical to identify potential health risks, and for learning all we can about lifelong risks from exposure,” she writes (99). Her

research recommendations include studying DES sons, monitoring DES grandchildren, following DES daughters for long-term clear cell cancer risk, and studying the effect of hormone treatments on DES-exposed women (ibid.).

DES Stories advocates for this research agenda in part by positioning DES within late twentieth-century concerns about environmental toxins and casting DES-exposed people as “canaries in the coal mine,” harbingers of toxic threats (xxi).²¹ This narrative appears both in the editorial material and a number of witness testimonies. It begins on the first page of text, with Braun’s claim that “DES has become a significant model for how environmental estrogens may disrupt the reproductive systems of wildlife and humans” (viii). The Foreword by World Wildlife Fund scientist Theo Colborn lends both scientific credibility and the clout of a widely known environmental protection organization to this claim. Colborn puts DES in relation to the endocrine disruptor hypothesis that she helped pioneer:

Today, a much larger global experiment is taking place with not one, but a number of synthetic chemicals that offspring and mothers are sharing through their blood before birth and the mothers’ milk during breast feeding. To date, several hundred or more widely used contemporary industrial and agricultural chemicals have been shown to interfere with the natural chemical messengers that control development and function—as witnessed in wildlife, and proven in the laboratory. Just like DES, these chemicals in the environment interfere in a host of ways to disrupt the signals in the womb that tell the unborn how to develop according to the genes inherited from his or her mother and father... The story of DES provides a glimpse of what should be considered before we allow new chemicals to come on the market. (ix–x)

In keeping with the strategies of embodied health movements, DES-exposed people are also positioned as lay experts, adding an aspect of populism to Colborn’s warning that their stories foretell our chemical future. DES daughter Marjon Floris hopes “to let people know that a chemical has done harm to people all over the world. Chemicals are advertised as if we can’t live without them. Pesticides, solvents, food additives, contaminants. What are we doing?” (in Braun 22). Likewise, DES daughter Susan Wood, whose sister died of DES-related cancer, argues that

“DES is not an isolated incident. Hormone exposure is a big question mark—whether you get it through DES, estrogen replacement therapy, spilling in the wetlands, or endocrine-disrupting chemicals in industrial products. On a larger scale, DES is what’s happening in our environment” (60). “It’s like Agent Orange,” says DES mother Lillian Epstein (86).

If the early DES life narratives I discuss in the first part of this chapter employed a relatively straightforward version of the David versus Goliath topos, *DES Stories* broadens and complicates the staging of this moral drama. Certainly, many witness testimonies comment on the culpability of doctors and drug manufacturers, but as DES son David Mock explains, “It’s much more complicated than ‘those are the villains’” (12). Instead, DES is recast as part of the ongoing tensions between the drive for technological progress and the precautionary principle of risk assessment,²² between a desire for economic growth and for conservation, that characterize contemporary debates about environmentalism.

This move to situate DES within a growing conversation about environmental toxins suggests the prominence to which this toxic discourse had risen by the end of the twentieth century. Beyond individual battles against drug companies, beyond even “a national women’s health issue” (Fenichell and Charfoos 164), the rhetoric of toxicity forges ties between DES and a host of potent political issues emerging in turn-of-the-millennium risk society. It suggests that DES life narratives should be read in conversation with the other stories of environmental degradation and toxic exposure that have proliferated over the past thirty years. In considering DES narratives alongside literature from other embodied health movements, this dissertation continues the work of putting the diethylstilbestrol crisis and its dominant narratives into a broader context of toxic, environmental, and subject-making discourses.

Traumas of “the DES Wars”

Theorists of life writing have suggested that crisis is often the impetus of the autobiographical act (eg. Starobinski; Kerby; Egan; Fuchs). Life narratives of illness in particular are structured by crisis and frequently tell stories of trauma. For Anne Hunsaker Hawkins, “the self of pathological writing is the self-in-crisis” (17). In the 1990s, G. Thomas Couser coined the term “autopathography” to describe illness narratives, which he sees as a way for subjects to “talk back” to the medical establishment, “writing about their *own* bodies, rather than leaving the job to medical professionals” and their genres of the clinical chart or the case study (*Memoir* 44; see also *Recovering Bodies*).²³ The recent rise in such narratives “should be understood in the context of the civil rights movements of the last quarter century,” including feminist, anti-racist, and disability rights movements (Couser, *Signifying Bodies* 4). This conception of the illness narrative as a form of experiential knowledge in service of collective identity politics aligns with the goals of embodied health movements. Telling stories of illness can not only describe but *perform* the challenges to existing medical or scientific practices that characterize EHMs by relocating the source of knowledge about illness from the observing researcher/physician to the subject who experiences illness.

Representations of illness as trauma shape the narratives of embodied health movements and the politics of collective illness identities considered in this dissertation. DES life narratives describe classic physiological and psychological symptoms of trauma. In *DES Daughter*, Joyce and her family members experience post-traumatic symptoms as a result of their experience with DES. Joyce testifies—both in court and in her narrative—about nightmares, the constant fear that her illness has returned, the fear that she is inadequate for her husband, her feelings of abnormalcy or “freakish”-ness.²⁴ In this way, Joyce testifies to a state of traumatic embodiment,

of living in a body whose sexual and reproductive functioning requires her to face the effects of her cancer “every night of my life” (149). Joyce also sees that her parents have become “exhausted and worn” after what they had “suffered” throughout their daughter’s illness (146-147). On the stand, Mrs. Bichler describes a “tremendous sense of guilt” for her role in her daughter’s illness (147). Anne Needham’s mother, too, testifies to the responsibility she feels for having taken DES and its disruption of her family’s dynamics.

In these narratives, the effects of DES exposure resonate far beyond the immediate crisis of cancer or the high-risk pregnancies many of the witnesses in *DES Stories* describe. Witnesses characterize DES exposure as an experience that reverberates through time, illustrating Cathy Caruth’s claim that trauma constitutes “a narrative of belated experience” and “its endless impact on a life” (7). They testify to the continued effects of diethylstilbestrol on their relationships, from their sexual and reproductive lives, to problems of communication between DES mothers and their children, to fears of potential health impacts in DES grandchildren.

Anne’s struggles to sustain her place within a nuclear family in *Daughters at Risk* are exemplary here. Anne ends two romantic relationships throughout the course of the narrative. While Anne’s boyfriend John remained her partner through her surgery, they eventually split amicably, in part because Anne was “feeling insecure about her own identity as a woman...She knew that being unable to have children made her uncomfortable about settling down” (139). She eventually moves in with another man who is not interested in her medical history, but the strain of the trial—from which he prefers to remain separate—ends their relationship. Her mother is wracked with guilt over having taken the drug that led to Anne’s cancer, and Anne finds that she harbors a certain amount of resentment toward her. Mary Needham also testifies in court that the cancer has disrupted the broader family dynamics. Anne, she says, is saddened by

the birth of her nieces and nephews because “she would have been the mother” figure to them, as she has mothered all of her siblings (272). Anne’s hysterectomy also complicates her relationship with her father, who is almost entirely absent from the narrative. Anne is haunted by a story she has heard that when Mary had a hysterectomy years before, Mr. Needham told his wife that she “[wouldn’t] be a woman anymore” (80). According to both her mother and her father, Anne’s inability to have children means that she has failed to fulfill her role within the family. Through its effects on the physical bodies of exposed women, DES disrupts the familial body— not simply through “the removal of the children, the removal of the grandchildren” (Fenichell and Charfoos 277), but in the Needhams’ unmet expectations of their daughter’s function in reproducing the nuclear family.

For Anne, the suit against White Laboratories for manufacturing and distributing the DES her mother took holds out the possibility that she herself will be exonerated of these perceived failures. Although she is anxious about testifying, she feels relieved that “in this court would be the proof that it was in the pill that the source of the trouble could be located—not in her” (184). Telling her story may be frightening, but it also promises to relieve some of trauma’s lingering pressures on Anne’s sense of self. Belief in testimony’s healing promise is common among DES narratives and reflects broader cultural ideas about the value of telling stories of trauma in general and of illness in particular. Nancy Stuart suggests the productive potential of witnessing through photographic portraiture, indicating that posing for the camera serves as a form of therapeutic testimony. “By looking into the camera,” she writes in her artist’s statement for *DES Stories*, “each participant in this project breaks through the anonymous wall around DES. They become healers and storytellers themselves” (xi). Stuart’s understanding of autobiographical presentation as a form of what Suzette Henke calls scriptotherapy—a therapeutic act of “writing

out and writing through traumatic experience”(xii)—is supported by many theorists of trauma, including Dori Laub. Laub argues that “repossessing one’s life story through giving testimony is itself a form of action, of change, which one has to actually pass through, in order to continue and complete the process of survival after liberation” (“Truth and Testimony” 70). This process of repossession is crucial, argues Susan Bell, when “lives are interrupted by illness” (9).

Narrative may help to heal wounds or ruptures caused by the material and social experiences of illness, to suture the life back together.²⁵

Narrative may offer the possibility of healing to both those who tell stories and those who hear them—and hear themselves in them. Margaret Lee Braun explains that she began the project for *DES Stories* because she “wanted to find [her] own story in others’ experience” (xix). Through narrative, trauma’s gaps and inconsistencies can be integrated and understood. Jason Tougaw explains that trauma “need[s] testimony to frame it, to put it *inside* ‘the range of associatively linked experiences,’ *inside* ‘the range of comprehension, of recounting and of mastery’” (quoting Laub and Felman 170, emphasis in original). Anne Needham experiences this herself, when reading a magazine article about another DES daughter helps her recognize her own deep-seated anger toward her mother for having taken the drug that caused her illness. “It was only then that what had happened to her really started to hit,” recounts the narrator. “Up until that point, the feelings she had been suppressing were safely buried” (Fenichell and Charfoos 122-123). It is only through her encounter with another’s story that Anne is able to name and confront her own emotions connected to her cancer. Only once she has been given a name for her feelings and for herself (this is the first time Anne encounters the term “DES daughter”) does Anne find an outlet for her anger in suing the pharmaceutical company. The

testimony of the unnamed DES daughter featured in the magazine ultimately compels Anne's legal testimony and the auto/biographical witnessing of *Daughters at Risk*.

Women's Bodies, Reproductive Bodies, Able Bodies

Anne's self-recognition in the other spurs her to tell her own story, and the magazine article serves as a precedent that shapes the way Anne can conceive of and therefore narrate her own DES experience. One of the core arguments of this dissertation is that telling stories of illness within the context of the collective illness identities produced through embodied health movements produces master or ur narratives of traumatic experience. The flip side of collective identities' political organization is a norming project, one that produces a familiar and repeated narrative of victimization that may erase differences among the DES-exposed and their experiences. Beyond collapsing difference in favor of homogeneity, as the politicized collective illness identities of EHMs coalesce around familiar narratives of harm and redress, they police the boundaries of what are considered "normal" forms of embodiment, trauma, and subjecthood beyond the DES movement. This can be seen in the ways DES narratives position those exposed as both poisoned subjects impaired by the drug and as "typical American girls." DES daughters like Joyce Bichler and Anne Needham must credibly claim to be impaired enough to deserve legal (monetary) compensation, but these claims to impairment revolve around auto/biographical subjects' aspirations to normative forms of womanhood that are tied to reproduction. As plaintiffs (both legal and autobiographical), they are positioned within the bounds of acceptable femininity even as they claim that their femininity has been damaged through exposure to diethylstilbestrol.

DES daughters' simultaneous claims to impairment and normativity center on reproductivity. The narratives I consider in this chapter portray the threat or reality of hysterectomy or structural abnormalities of the reproductive tract as a traumatic loss of woman- and motherhood for DES daughters. This master narrative privileges reproductive bodies within heterosexual marriages as the unquestioned norm; the trauma of DES becomes the trauma of this violated heteronorm. Susan Bell explains how biological reproduction may function as a barometer for measuring "true" womanhood, a litmus test that subjects DES daughters—who "are more likely than women not exposed to DES to suffer infertility and pregnancy loss"—to particular scrutiny (72).

The expectations and bodily experiences of DES daughters frequently do not conform to the dominant cultural expectation in the United States of a seamless progression that begins with a decision to conceive and continues smoothly to pregnancy and the birth of a healthy infant (Bell 2004). The dominant narrative connects biological performance—reproduction—to adult womanhood (G. Becker 2000, 73). A woman becomes a 'real' or 'complete' adult only when she has given birth to a child (Layne 2003). The dominant cultural narrative assumes that all women want to and will become mothers. (ibid.)

This cultural imperative is given voice in DES narratives, which focus on non-reproductivity as one of the greatest injuries of DES exposure, despite data suggesting that 80% of DES daughters will complete at least one pregnancy resulting in full-term live birth (Braun 94). In *DES Daughter*, Joyce fears that her partner will not be able to "love a deformed woman," and she identifies disruptions to her sexuality as "the core of what DES had done" to her (73; 148). Anne experiences similar concerns that her surgeries have unsettled her identity as a woman and made her unfit for long-term romantic relationships. The often-frustrated desire for "natural" (that is, biological, non-surrogate) children is arguably the most common theme of the testimonies in *DES Stories*.

One possible explanation for this linkage between trauma and infertility is the existence of sexual violence as the paradigm for women's trauma. Following second-wave consciousness-raising about rape in the 1960s and 1970s, and during a period when debates about recovered memories of childhood sexual abuse were on the rise, traumas arising from sexuality were particularly visible and legible in the 1980s. Even as Joyce comes to realize that her "greatest fear was not that [she] would wake up without a uterus or a vagina, and not be able to make babies, but that the doctors wouldn't be able to help," anxieties about reproductivity become a recurring expression of these fears after her surgery (64). For Joyce, the inability to reproduce signifies a mortality that may come too soon.

If the dominant paradigm suggests that reproductivity is the greatest aim and greatest tragedy of DES daughters, the scene of reproduction offered in these narratives is itself highly circumscribed. In all of the DES narratives I have considered here, reproduction is represented as the sole province of heterosexual, nuclear families. In fact, despite claims by some activists and researchers that DES exposure may be connected to homosexuality and gender dysphoria,²⁶ and despite the use of DES to facilitate pre-operative gender transition, the stories of gay, lesbian, and transgender people are not acknowledged as part of the DES legacy as represented in *DES Daughter*, *Daughters at Risk*, *DES Stories*, and other DES life narratives.

When Warren Lehrer, featured in *DES Stories*, suggests that DES exposure may have impacted his gender identity development, he must be reabsorbed into the paradigm of the heteronormative family. He testifies, "[F]or a time, around puberty, I remember wishing I was a girl. I had a secret doll collection...and I didn't relate to other guys. I just thought would fit in better as a girl, I grew out of it, but I can't help but wonder" (44). The text accompanying Nancy Stuart's portrait of Warren informs us that he is married and would like to have a child, although

he worries about infertility. Both his own testimony and Braun's editorial commentary can be read as distancing the adult man Warren from his claim that as a child he might have preferred to be a girl. Instead, like most of the subjects in the anthology, he is identified with heterosexual marriage and reproduction.

This stubborn reentrenchment of the hetero-nuclear family is to an extent a product of the heroic paradigm of toxic discourse's David versus Goliath moral drama. This plot structure primarily represents an individualistic model of struggle that relies for its moral force on a protagonist who is both representative and exceptional. Leigh Gilmore explains this paradox: "If you are an autobiographer, then you stand in the place of the representative person. Your position there enables the kind of identification that characterizes autobiography. If you act, then, as the mirror of the self (for me), then in my identification with you I substitute myself for you, the other" (*Limits* 22). On the other hand, a protagonist is expected to demonstrate himself to be above average, whether through deeds or in his intrinsic character. However, the obligation to exceptionalism carries inherent risks to the competing demand for representativeness. "If I am barred from [identification] by your nonrepresentativeness," Gilmore continues, "I withdraw my identification and, quite likely, the sympathy that flows from it" (22).

Some disability critics caution that life writing itself—with what David Mitchell sees as a "devotion to narcissistic self-revelation" (312)—is a form more suited to representing normate subjectivities than disabled ones.²⁷ Autobiography too easily "upholds the myth of 'rugged individualism'" that disguises disability as an individual pathology rather than as a social problem (Mintz 7–8). This view suggests that there may be a fundamental discord between the us-versus-them moral dynamic characteristic of some forms of life narrative and the collective political work of embodied health movements. Even though "the politicized collective work of

embodied health movements...turns attention away from individual bodies as sites of risk to the risky environments in which the patients live” (Bell 4–5), life narrative may work in the opposite direction by attending to the subject’s agency in overcoming obstacles and achieving a comedic resolution. The disability studies critique also highlights how non-representativeness prevents some subjects from being easily interpolated into the morally-laden narrative of triumph over adversity. To return to DES’s heteronormative subject, then, the impairments and traumas associated with the identities DES daughter or DES son already render autobiographical representativeness uncertain and threaten the identification on which rests both legibility and sympathy. As Gilmore explains, “trauma narratives often draw skepticism more readily than sympathy because they expose the conflict between identification and representativeness” (*Limits* 22). As poisoned subjects, DES life narrators may suffer a representativeness deficit that is counterbalanced by other forms of normative self-representation.

If we unpack the series of movements I have been tracking here, it becomes clear that DES narratives are not merely trading in norms of femininity but, more important, reflect and reproduce interlocking social attitudes about gender, sexuality, and ability. If DES daughters’ attempts to seek redress depend on claims to physical impairment, and if impairment is largely or primarily identified with reproductive difficulties, then biological reproduction becomes a positive sign not only of adult womanhood but of able-bodiedness. Moreover, if reproduction is located securely within heteronormative families, anyone who falls outside the “charmed circle” of reproductive, heterosexual coupling becomes identified with *dis*-ability. Queer/disability theorist Robert McRuer theorizes and historicizes this relationship between norms of heterosexuality and ability. Following Adrienne Rich, McRuer describes “a system of compulsory able-bodiedness, which in a sense produces disability [and] is thoroughly interwoven

with the system of compulsory heterosexuality that produces queerness...[C]ompulsory heterosexuality is contingent on compulsory able-bodiedness, and vice versa” (2). Insofar as its prevailing narrative reinforces the cultural imperative that women become mothers, the DES movement is complicit in the interlocking system of compulsory heterosexuality and compulsory able-bodiedness that McRuer describes.

This is not to criticize individuals who testify to their experiences with DES-related injuries, nor to undermine the real gains of the DES movement: financial and political support for research; feminist analysis of scientific knowledge production and doctor-patient relationships; lawsuits that compensated individuals impacted by DES and held industry accountable to the public interest; and increased awareness among medical professionals and lay people, leading to early detection of DES-related illnesses. Neither is my intention to fix DES witnessing statically in the past. Indeed, DES-exposed people continue to adapt old messages and strategies to reflect new scientific research and activate the possibilities afforded by new representational technologies.²⁸ Rather, this critique approaches the DES movement with ambivalence, as sometimes life-affirming, sometimes exclusionary, and ever evolving. It recognizes the pressures of witnessing to trauma, which are intensified when testimony puts forward embodied, gendered knowledges. Such testimonial injustice places additional demands on witnesses and the social movements that would mobilize their testimony toward structural change.

In the face of challenges to their authority to determine the meaning of their own illness experiences, life narrators strategically navigate gender norms to assert the truth-value of their claims to recognition and redress. Positioning themselves as poisoned subjects, they shape the meanings not only of DES exposure but also femininity, motherhood, and ability. Thus, DES

testimony suggests questions about epistemic justice that are raised by all of the EHMs I discuss in this dissertation: How do the poisoned subjects of toxic life narrative mitigate the threat of testimonial injustice? How do those strategies impact future claims for epistemic justice? How do different forms of life narrative facilitate certain kinds of claim-making?

Notes to Chapter 1:

¹ Thalidomide was marketed as a sedative that was safe to use for the treatment of morning sickness during pregnancy. Instead, the drug turned out to have teratogenic effects, and thousands of “thalidomide babies” were born with phocomelia, or maldevelopment of the limbs. Only about half of those children are believed to have survived childhood. The first documented case of in utero thalidomide exposure was in 1956. The child’s father, who worked for the drug manufacturer Chemie Grünenthal, had brought home samples of the drug for his pregnant wife. It was not until 1961-1962 that the effects of the drug became widely known and thalidomide was subsequently withdrawn from markets in Germany, Brazil, Japan, Italy, and England. Thalidomide never received FDA approval—largely due to the efforts of a single woman at the Administration, Dr. Frances Oldham Kelsey, whose previous research had demonstrated that anti-malarial drugs could cross the placenta—but it was still distributed to more than one thousand physicians in the United States to prescribe to their patients for investigational use. On the history of thalidomide, as well as Kelsey’s role in blocking FDA approval, see Langston (90–95) and Stephens and Brynner. An interesting pair of thalidomide life narratives are David Mason’s 1976 *Thalidomide: My Fight* and Louise Medus’s 2009 *No Hands to Hold and No Legs to Dance On*. Mason, an art dealer in London and father of a thalidomide baby, used his Fleet Street connections to wage an extended public relations and legal campaign against the British thalidomide manufacturer Distillers, ultimately securing tens of millions of pounds in settlement money. Mason’s narrative chronicles this fight. His daughter Louise later wrote her own narrative, challenging mainstream representations of thalidomiders as piteous. Medus also describes the physical and sexual abuse she experienced growing up in a group home for disabled children, as well her difficult relationships with partners, family, and caregivers who challenged her testimony about the abuse and her competence as a homemaker and mother.

² On the history of menopause, see Seaman. On the development of DES and its early application as menopause treatment, see Langston and Fenichell and Charfoos.

³ The Food and Drug Administration was originally named the Food, Drug, and Insecticide Administration, a body of the USDA that formed in 1927 out of another USDA program, the Bureau of Chemistry. The organization was restructured as the FDA in 1930.

⁴ Nancy Langston reviews a significant body of medical literature from the late 1930s suggesting a DES-cancer link (Langston 32–39). Barbara Seaman carefully documents Dodds’s warnings (36–40).

⁵ At least four major challenges to the Smiths’ claims about DES were published in *The American Journal of Obstetrics and Gynecology* between 1950 and 1953: Crowder, Bills, and Broadbent (1950); Robinson and Shettles (1952); Ferguson (1953); and Dieckmann et al. (1953) (see Fenichell and Charfoos 59–63).

⁶ Stories abound in DES testimony of women who unknowingly took the drug as part of what they believed to be a regimen of strictly prenatal vitamins, and there seems to have been some crossover between these two common prenatal treatments. According to the advocacy organization DES Action, some prenatal vitamins were supplemented with DES, such that an unknown number of women received the drug without a prescription and without documentation. At least one manufacturer, the Grant Chemical Company, advertised its desPLEX DES pills as containing vitamins B and C. DES awareness materials, such as a 1980 resource guide produced by the National Women’s Health Network, have advised women seeking information about

possible DES exposure to ask their mothers “if they took any medications or vitamins during pregnancy” (8).

⁷ In a 1957 advertisement, the Grant Chemical Company claimed that its desPLEX product had a ninety-six percent delivery rate and made for “bigger and stronger babies, too.” Nancy Langston offers one of the most detailed scholarly discussions available of the relationship between human and livestock applications of DES. See *Toxic Bodies*, 63-75.

⁸ While the gender-neutral term “DES grandchildren” is used to describe the generation twice removed from DES exposure, the children of DES mothers are almost always referred to as “daughters” or “sons” in DES literature. I follow that convention here because this gendering is central to my argument about the politics of DES’s toxic discourse, but I recognize that not all people with cervixes, for example, may identify as daughters, and not all people with penises and/or testicles identify as sons.

⁹ Margaret Lee Braun includes a detailed DES timeline referencing dozens of medical studies and media stories about the drug from the 1930s through the early 2000s in *DES Stories* (91–97).

¹⁰ *Bichler v. Eli Lilly Corporation* was significant in the development of modern US tort law, establishing manufacturers’ responsibility both for adequately testing and advertising the risks of their products (Peppin) and for cross-generational consequences of dangerous products (Feinman).

¹¹ *Plaintiff* derives from the Old French *plainte*, meaning “lamentation.” This is based on the Latin *planctus*, meaning “beating of the breast.” Thus, to complain in the legal sense actually suggests a physical expression of grief. This connotation dates back to at least the 1100s in French jurisprudence. As I argue later in this chapter, DES daughters claim a poisoned subjecthood by testifying, through the body, to the trauma of living as a woman without a womb and without a ‘natural’ vagina.

¹² Personal narratives of illness and disability tend to follow strict, premodernist narrative conventions. Illness narratives, by and large, offer a linear narrative with a clear resolution. Most often this resolution is comic; that is, the protagonist ends the narrative in a better position (physically, socially, and/or economically) than she found herself at the beginning of the story (Hawkins 106; Couser, *Recovering Bodies* 14, 293).

¹³ Joyce in fact describes herself at the time of her diagnosis as “simply a little girl just turned eighteen” (27).

¹⁴ I have yet to discover significant epitextual material that sheds light on the conditions of *Daughters at Risk*’s narrative production.

¹⁵ I have attempted, to no avail, to locate a probable source for the early DES daughter life narrative mentioned in *Daughters at Risk*. The publication is referred to only as “a women’s magazine” (122). If indeed this episode occurred as depicted, the article was likely published in the fall of 1974 or 1975.

¹⁶ Scholars like Julie Guthman and Becky Mansfield have shown how injunctions to personal development and responsibility reflect gendered and racialized expectations about consumption and self-care. I explore the personal development claims associated with neoliberalization in greater detail in chapter 3.

¹⁷ The “I” of life writing (or, in the case of *Daughters at Risk*, the third-person auto/biographical subject) may encompass the historical subject; the narrating subject, who tells the story of the life; the narrated subject, or the protagonist of the life story; and the ideological subject, which

“is the concept of personhood culturally available to the narrator when he tells his story” (Smith and Watson, *Reading* 71–76).

¹⁸ One theory I have regarding the magazine article that is credited with introducing Anne to the term “DES daughter” is that the “women’s magazine” in question is a feminist publication, such as *Ms.*, which might cast doubt on the narrative’s claim that Anne “had never been a feminist.”

¹⁹ Endocrine disruptors are environmental chemicals that mimic the body’s endogenous hormones. When exposed to these chemicals, the body responds in similar but not identical ways as to its own hormone production. The result can be disruptions to fetal development, sexual maturation, reproductive function, fat deposition, energy metabolism, and, potentially, cell growth. Some research suggests that endocrine-disrupting chemicals may play a role in breast and other cancers. See Steingraber; Seaman; Langston. I will return to the politics of endocrine disruption in chapter 4.

²⁰ Witnesses who testify to DES exposure as a threat to gender identity include Susan Simpson (8), Judy Weisman (10), Pam Crist (16), Gaylene Fraser (19), Bill Kenny (30), Richie Hare (36), Warren Lehrer (44), Andy Zatyko (68), and Gail Hyman (78).

²¹ The canary in the coal mine is a prevalent image in contemporary toxic discourse and is especially significant in the MCS movement. See chapter 2, note 15.

²² Risk assessment, or risk analysis, often boils down to establishing “acceptable” levels of risk. The precautionary principle states that when an action may cause harm to human or environmental health, precautions should be taken, even if the risk has not been fully established through scientific methods. More broadly, precaution dictates that those who wish to use and stand to benefit from new technologies or practices should bear the burden of proof. It asks for demonstrations of safety *before* widespread application of new technologies, rather than proven risk after the fact. In the case of DES, as with many environmental hazards, some researchers and medical professionals immediately cautioned against the widespread use of the drug, citing cancer risk and questioning claims that the drug prevented miscarriage. DES is one in a long line of examples of “late lessons from early warnings” that demonstrates the benefits of a precautionary approach (Brown, *Toxic Exposures* 241). See also Steingraber (290); Heise (134).

²³ Couser has lately abandoned his earlier coinage in favor of “autosomatography,” or the “some body memoir” (see *Signifying Bodies*), which discards the prefix “patho” in order to place less emphasis on the medical condition and foreground instead the experience of living in a particular body (*Memoir* 44). For my part, I think both terms have their place, and they do not seem wholly interchangeable. I respect the critique levied by disabled life writers that Couser says ultimately swayed him to drop the term “pathography,” which seems to align with a medical model of disability that treats disability as an individual problem to be “fixed” by medical experts. But some life narrators are undoubtedly writing from and to this perspective. Even as DES narrators like Joyce Bichler challenge the male-dominated medical establishment for viewing female patients as irrational or infantile, they do not by and large challenge biomedicine as a dominant framework from which to interpret their bodies. *DES Daughter*, for example, is fundamentally a story about being a patient, such that “autopathography” seems like a fairly accurate description of Bichler’s project. I’m not sure that “autosomatography” fits this narrative quite as well.

²⁴ Upon first learning that she would undergo a vaginectomy, Joyce feels “appalled at the thought. It was so mutilating, so freakish...[I]t was unnatural and bizarre and they were going to do it to *me*” (59). She also describes feeling like a “side show” act when her doctor asks if young medical residents and interns might observe her pre-operative consultations (56). On the

“enfreakment” of disability, see Hevey; Thomson, *Extraordinary Bodies*; Alaimo. On the reproductive “freak,” see Beauchamp, Davidson.

²⁵ Telling stories of trauma may not always prove therapeutic. As Sidonie Smith and Julia Watson note, writing-as-recovery can easily become writing-as-self-monitoring, “a Foucauldian self-surveillance that conforms the writing subject to prescriptive norms” (*Reading* 147).

²⁶ Like other endocrine-disrupting chemicals, DES is believed by some researchers to contribute to a variety of forms of gender and sexual variance (eg. Hood). A 1995 study reported a small but significant increase in lesbian and bisexual attraction among DES daughters over non-exposed women (Meyer-Bahlburg et al.). Organizations like DES Action and the social media-based DES Daughter Network publicize possible links between DES exposure and “gender issues,” including homosexuality, bisexuality, transsexuality, intersex, gender identity disorder, and transgender.

²⁷ See chapter 2, note 3.

²⁸ Two examples of very recent DES witnessing that point toward shifting representational strategies are Alice Eve Cohen’s memoir *What I Thought I Knew* and Dominique Le Metayer’s web-based DES Daughter Network. Cohen, whose testimony appears in *DES Stories* and who has produced solo performances about DES, writes of bringing a wrongful life suit after the birth of her daughter. Because of the effects of her DES exposure, doctors believed that Alice was unable to become pregnant; as a result, she only learned of her high-risk pregnancy after six months and a misdiagnosis of an abdominal tumor. Cohen’s memoir complicates the normative narrative of infertility represented in the earlier DES narratives I discuss here. Le Metayer’s suite of platforms for her DES Daughter Network includes a blog, website, Facebook page, Twitter account, and Pinterest board, all organized around the proposition that “social media increases awareness and brings the DES community together.” Le Metayer attempts to mobilize “The 4 ‘C’s [sic] of Social Media for the DES cause”—connect, contribute, collaborate, and change.

Chapter 2

Frames of Disability in Multiple Chemical Sensitivity Testimony

They admitted that they had initially thought they were coming to “talk to another nut.” But as they left, they both agreed that they had just talked to a true victim.

-Linda Baker, MCS witness¹

What does it mean to be a “true victim?” How do you distinguish a victim from just “another nut”? These questions are at the heart of debates over a contested environmental illness known as multiple chemical sensitivity (MCS). MCS describes a condition wherein people experience extreme physical reactions to minute levels of a wide array of chemicals. Exposure to perfumes and artificial fragrances, adhesives, inks and paints, pesticides, detergents, and natural gas may trigger a bewildering array of symptoms, such as headaches, nausea, vomiting, aching limbs, respiratory distress, fainting, seizures, temporary paralysis or blindness, sores, and psychological symptoms like depression, anxiety, paranoia, and hallucinations.² With no medical consensus about how or why low-dose exposures produce such symptoms, MCS is often discredited as psychosomatization or toxic hysteria. When people who identify as multiply chemically sensitive communicate their experiences and theories of chemically-induced illness, they issue a profound challenge to these biomedical expectations. In the face of pervasive skepticism about their condition, these “MCSers” mobilize a variety of interpretive frameworks to show that they are not just “another nut” but are instead “true victims” who are disabled by toxic exposure.

This chapter considers two collections of MCS testimony in which chemically sensitive people theorize their embodied experiences with this chronic and debilitating illness. The narratives and images featured in Rhonda Zwillinger's 1998 testimonial and photographic collection *The Dispossessed* and the narratives of Alison Johnson's 2008 *Amputated Lives* witness to MCS as a "true" disability. The witness, according to Arthur Frank, "offers testimony to a truth that is generally unrecognized or suppressed" (137). To do so, the illness witness becomes "a living testimony," such that "illness stories are not only *about* the body but *of* and through the body" (Frank 140, emphasis in original). In the testimony collections considered here, MCS witnesses make sense and meaning of their bodies as living testimonies by negotiating the "multiple and contradictory frames of significance" through which disability is surveilled, interpreted, and controlled (Quayson 18).

I mobilize Ato Quayson's concept of "frames" of disability as a critical rubric to unpack the ways witnesses theorize MCS as a disability through the production and organization of testimony. Quayson suggests that we think of a picture frame as a metaphor for disability's relation to the normate.³ Disability is structured by overlapping conceptions of the "normal," "ideal," and "able." Frames of significance determine what can be "seen" as disability, determining which aspects of disabled persons' lives and bodies are "in the picture." The picture frame also calls forth disability as not only socially constructed but as specifically constructed in domains of the aesthetic—including both photograph and narrative, representational forms that appear in Zwillinger's and Johnson's anthologies. Just as a picture frame draws the eye toward the image as a bounded aesthetic object, cultural frameworks for understanding disability subject persons with disabilities to the gaze of the normate. Yet the frame constitutes, even as it delimits, the aesthetic object.⁴ When persons with disabilities manipulate the "network of symbols"

through which disability acquires its cultural meanings (Quayson 18), they do not only reconfigure how disability can be understood; they actively shape what disability *is*. Quayson's metaphor powerfully suggests the integral relationship between symbol and materiality.

The rubric of “frames” is particularly useful for reading MCS testimony because Zwillinger's and Johnson's anthologies are each centrally concerned with the material consequences of representational networks. In these curated anthology collections, chemically sensitive people render their experiences with illness and disability in visual and narrative forms, constructing and re-constructing the image of MCS. To theorize their embodied experiences, MCS witnesses situate themselves in relation to the multiple and contradictory frames through which physical and mental disabilities signify. In doing so, they not only make an argument that MCS should be taken seriously as a disability; they also change the frames of reference for understanding relationships between bodies, environments, and toxicity. Zwillinger's and Johnson's collections thus stand as examples of the “new disability memoir,” challenging normativizing rhetorics of disability that celebrate disabled people's triumphs over adversity and encourage pity for or horror of disabled bodies and subjectivities (Couser, *Signifying Bodies* 172–178).⁵ Instead, the narratives collected in these MCS anthologies link individual stories of pain and debility to politicized claims for both rights and justice. Witnesses put pressure on cultural understandings of illness and disability as they operate within environmental contexts.

I treat *The Dispossessed* and *Amputated Lives* as collective, curated life narratives, each of which offers a broader narrative arc that can be read coherently despite internal disjunctions and discrepancies. The ur narratives constructed in these MCS anthologies strategically medicalize the environmentally ill body in order to frame chemical sensitivity as a disability deserving of compensation and accommodation. *The Dispossessed* articulates an MCS identity

constructed through the imbrication of the human body and its environments. Witnesses claim an MCS identity by framing their illness in a diagonal relationship to biomedicine. *Amputated Lives* demonstrates how testimonial injustice shapes MCS embodied health politics within and beyond that collection. Johnson's witnesses attempt to mitigate challenges to their capacities as knowers by combining disability rights discourses with the rhetoric of flexible bodies. In the repeated telling of stories with familiar structures and tropes, mental illness becomes a foil against which MCS is positioned as a "real" illness exacerbated by disabling social conditions. Moreover, in articulating environmental illness as an economic crisis of the American nation, Johnson's anthology embraces the promise of "the new image of 'the able-disabled'" in which "those people with disabilities who can best approximate the activities and appearance of nondisabled people... will be allowed to participate most fully in the activities of their society" (Wendell, "Unhealthy Disabled" 165). Taken together, these two anthologies of MCS life narrative show how multiple chemical sensitivity's poisoned subjects reframe the contest around their illness to position themselves as true toxic victims in relation to shifting discourses of disability.

The Dispossessed: Crises of the Chemically Sensitive Self in Space

The Dispossessed: Living with Multiple Chemical Sensitivities (1998) is a testimonial anthology featuring 44 black-and-white photographs of 64 people with severe sensitivity to chemicals. These portraits are the work of the collection's editor, Rhonda Zwillinger, who herself identifies as an "MCS sufferer."⁶ Each photograph is accompanied by a short personal narrative, often of no more than a paragraph. Together, Zwillinger's photographs and witnesses' testimonies document the ways MCSers create what Michelle Murphy calls an "elsewhere within here," a social-theoretical space where their condition can be understood and managed.

The Dispossessed represents MCSers' attempts to theorize their condition as a disability at a moment when disability was taking on new valences in the American public imagination. Conceived in the early 1990s,⁷ Zwillinger's project was created in the wake of the passage of the Americans with Disabilities Act, the 1990 federal law prohibiting discrimination on the basis of physical and mental disability. The ADA required for the first time that employers provide accommodations for people with disabilities, and witnesses like Jim R. deploy language of disability and workplace accommodation to testify to their MCS experience (5). In her introductory narrative, Zwillinger specifically invokes the ADA's guarantee of "reasonable accommodation" in support of rights for chemically sensitive workers (11). Steve Kroll-Smith and Hugh H. Floyd argue that MCS represents "a strategy for understanding a body that is becoming disorganized and unpredictable by providing it with a rational story to account for its untoward changes" (4). Visual and narrative testimony in Zwillinger's collection draws on shifting rhetorics of disability to create such a story.

Multiple chemical sensitivity is known as a "contested illness," or a condition with "contested causation," because its causes are the subject of significant scientific and public debate (Brown, *Toxic Exposures* 172). Lay people and dissenting experts challenge "dominant epidemiological paradigms" when they claim that low-level exposure to environmental chemicals are the cause of MCSers' symptoms (ibid. xiv). As ill people and their allies seek to legitimize contested illnesses, they seek recognition and treatment both within and outside of the dominant paradigm. This tension is represented within and across testimonial narratives in *The Dispossessed*. Some witnesses describe the benefits of "alternative" therapies, such as the sauna detox program described by Katherine D. In the portrait accompanying her testimony, Katherine is barely visible within the shadowy interior of her sauna (74). Elaine S. writes of the "special

clinic” that helped her heal, where patients “live on oxygen in a porcelain room” (50). Therapies like these are not generally recognized as legitimate by a medical establishment that often views chemical sensitivity as a psychological, rather than a physical, ailment.

Witnesses also situate their condition in relation to more traditional biomedical frameworks, even as they engage in diagnostic and treatment practices that challenge the foundations of those approaches. For Nina Z., this is a process of re-education within the context of the medical model in which she had been trained. “As a trained psychologist,” she writes, “I viewed my symptoms as psychological. Fortunately, I found a doctor who told me that my condition was not emotional; I had been chemically poisoned” (55). Erica E., a doctor, explains, “I now practice the kind of medicine in which I believe from my home—a union of traditional and alternative modalities” (44).

Witnesses like Nina Z. and Erica E. do not theorize their illness experiences *outside of* existing medical models but instead create spaces within and around biomedicine—an “elsewhere within here”—in which MCS can be understood and managed as a physiological condition. Borrowing vocabulary from Lauren Berlant’s studies of sentimentality, we might call this a juxta-medical space—one that exists to the side of, always bumping up against, traditional biomedicine. Berlant’s term, “juxta-political,” “seeks to understand the flourishing of the social to one side of the political as something other than a failure to be politics” (*Female Complaint* 25). The juxta-medical, then, represents not failure but ambivalence, not opposition but adjacency. The juxta-medical is a space “of ordinary survival, not transgression,” of “disappointment, not refusal” (ibid. 24–25).

MCS witnesses call such juxta-medical spaces into being through their living testimony. For example, when chemically sensitive people like Karen A. and her sons say they “are able

only to eat organic food” or use only “organic cotton bedding and clothing,” like Christie B. and John B., they describe what is probably the most common treatment for allergy: avoidance (Zwillinger 20, 38). People with the medically-recognized condition of IgE-activated food allergy may avoid touching others, eat only food they have prepared themselves, or wear protective gear such as gloves or masks to reduce contact with trace amounts of the dairy, fish, or nuts that could trigger anaphylaxis. Thus, when Karen, Christie, and John say that they manage their condition by consuming organic goods, they “call upon already-available caretaking performances operating within the biomedical dominant and reconfigure them” (Murphy 114).⁸ They engage a recognized epidemiological paradigm (allergy) to make sense of alternative consumption practices as a form of medical treatment. Taken together, these testimonies about MCS treatment present the condition not as a rejection of biomedicine but as a shifting set of practices for managing symptoms that include traditional medicine, alternative therapies, and care-taking routines.

In the previous chapter, I considered how the testimony anthology *DES Stories* produces an un-narrative of victimization that “reduce[s] differences to sameness” through the repetition of common themes and story structures (Schaffer and Smith 45–47). Collating MCS testimonies into collections with their own overarching narratives carries these same risks. On the other hand, the uniformity and anonymity that Schaffer and Smith caution against also have the power to draw attention to the repeated practices that produce identity and/as politics in embodied health movements. The act of repetition emphasizes narrative over narrator, and the multiplicity of stories invites audiences to locate shared experiences represented in witnesses’ testimony. In its insistent focus on the lived experience of MCS through the spaces and practices of everyday

living, *The Dispossessed* frames chemical sensitivity as a disability produced in the meeting of bodies and environments.

A theme that runs throughout the book's narratives and substantial peritextual material is the imbrication of human bodies with the natural and built environments they inhabit.⁹ More than half of the testimonies in *The Dispossessed* describe witnesses' living situations; some discuss nothing else. Zwillinger's photographs, too, are striking for their depiction of chemically sensitive people in their environments—in foil-lined rooms, outside Airstream trailers, next to detoxifying saunas, or seated in the cars in which they live. The Epilogue captures the collection's overarching argument that MCS is a structural problem created by disabling environments and maintained through social neglect. In it, sociologist Steve Kroll-Smith argues that the collection “documents a powerful, tragic diaspora of people uprooted and forced far from their homes by a debilitating disease and an unresponsive society” (83). As its title suggests, then, one of *The Dispossessed*'s central concerns is how location and dislocation work to disable people with chemical sensitivities.

One of the ways that MCS narratives depart most clearly from conventional medical accounts of the body is in situating the human body within the natural and built environments it inhabits. If MCS is fundamentally about having “a body that cannot live in putatively benign and safe places” (Kroll-Smith and Floyd 4), then chemically sensitive people must manage both their bodies and their environments in order to avoid potential incitants. Michelle Murphy calls this “building yourself a body in a safe space,” indicating the ways that bodies, spaces, and the very concept of safety are co-constructed. Since theorizing MCS means theorizing the body in its environment, people who understand themselves to be chemically sensitive reimagine the

boundaries of the self. The illness identity “MCSer” always describes the imbrication of human and habitat.

The photographic and textual testimony in *The Dispossessed* demonstrates how the chemically sensitive self comes to be defined through the relationship between self and space, body and abode. More than half of witnesses’ narratives describe their living arrangements. Randy H. testifies to “living in [his] car and sleeping in the front seat,” where he is pictured in the accompanying photograph (56–57). The camera is positioned outside the open driver’s side door, its panel reflecting the sunlight, with Randy H. framed by the black outline of the open window (Fig. 4). Susan M.’s page-long narrative consists of an elaborate description of her carefully designed, chemically safe house. With its separate living space, concrete floors, metal siding, foil-backed sheetrock walls, cross-ventilation, incandescent lighting, high desert landscaping, and wheelchair accessible sinks, it “fits [her] special needs quite well” (30–31; Fig. 5). Some witnesses, like Martin L., incorporate Zwilling’s images into their self-narration, implicitly endorsing the photographs’ focus on space and environment. “I have lived outside for almost 15 years, being unable to tolerate any indoor environments,” he writes. “I am pictured here parked in the desert with a travel buddy who also has MCS” (60). Martin and his unnamed buddy are pictured seated in the beds of their respective trucks, parked a few feet apart in a desert landscape (Fig. 6).

A majority of Zwilling’s portraits not only depict human subjects in their living environments but actually feature living spaces themselves as photographic subjects. The images thus stand in sharp contrast to Nancy Stuart’s studio portraits of DES-exposed people discussed in chapter 1, which appear austere by comparison. Zwilling’s often visually-cluttered images work in conjunction with witness testimonies to make the space surrounding her subjects hyper-

visible. The carefully-chosen building materials, foiled walls, metal doors, and wheelchair accessible design described by Susan M. can all be seen in the photograph accompanying her testimony (Fig. 5). While Susan appears in the immediate foreground, the camera looks past its human subject to the living space beyond her. But Susan's narrative encourages us to see the bare floor, metal countertop, and electric stove not as so much dead matter but as space that is alive with "vapor" and "electromagnetic fields." Together, the words and images offer "proof" of what cannot be seen. Zwillinger's photographs function as truth-effects, which appear to verify that Susan M.'s testimony—and therefore her illness—are 'true.'

As it represents the illness experiences of more than 60 MCS witnesses, *The Dispossessed* also represents a multitude of environments, all of them potentially threatening to Zwillinger, her subjects, and others like them. Multiple chemical sensitivity epitomizes the rhetoric of toxic proliferation that characterizes contemporary toxic discourse. MCS narratives emphasize that there is no safe place to be chemically sensitive. As Karen A. writes, "We want to rent a 'safe' place to live, but there is no 'safe' housing" (20). For those with the most severe chemical sensitivities, theirs is truly a "world without refuge" (L. Buell 38). Several of *The Dispossessed's* witnesses describe being constantly on the move, in search of an environment that will not exacerbate their condition. For Tom S. and Geralyn L., who "have life threatening physical reactions to the minutest amount of man-made chemicals," this means living outdoors year-round, "traveling from state park to state park" (77). Mary S., who lives outdoors in a tent with her young son, laments, "The area of desert where Baby Kitt and I live will soon be leveled for a golf course, making us homeless" (35).

Such testimonies illustrate the book's driving argument that MCS is a form of dispossession from the material and social milieu of American life. The constant dislocation

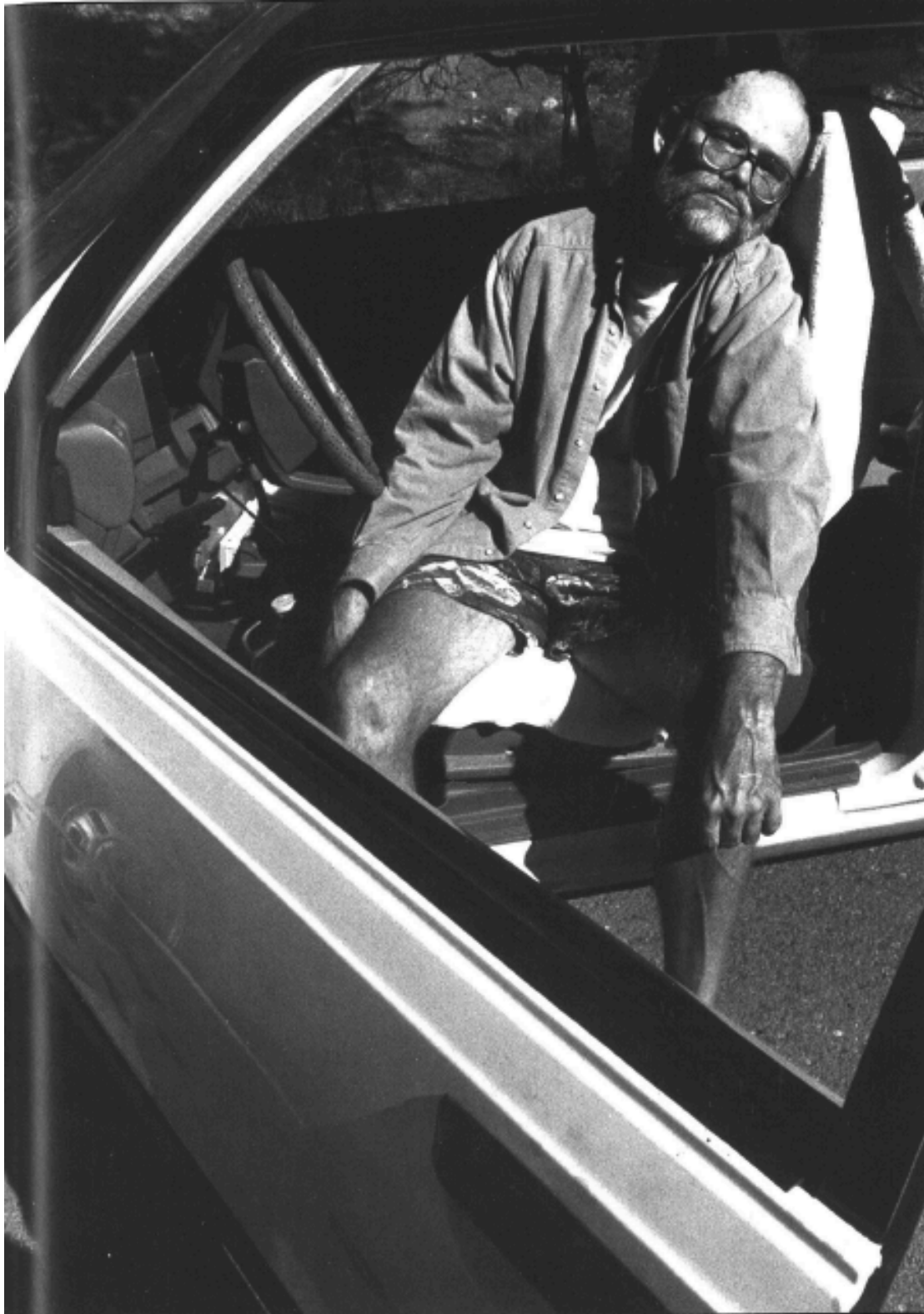


Figure 4. Randy H. (b. 1950) Prescott, Arizona
Photo Credit: Rhonda Zwillinger, from *The Dispossessed: Living with Multiple Chemical Sensitivities*



Figure 5. Susan M. (b. 1949), MCS and Disability Rights Activist Snowflake, Arizona
Photo Credit: Rhonda Zwillinger, from *The Dispossessed: Living with Multiple Chemical Sensitivities*



Figure 6. Martin L. (b. 1962) Tucson, Arizona
Photo Credit: Rhonda Zwillinger, from *The Dispossessed: Living with Multiple Chemical Sensitivities*



Figure 7. Jessica B. (b. 1940), Judith M. Prescott, Arizona
Photo Credit: Rhonda Zwillinger, from *The Dispossessed: Living with Multiple Chemical Sensitivities*

faced by many severely chemically sensitive people is a form of abjection, argues Murphy. If abjection “is the making and marking of a domain of impossibility” (Murphy 89), the MCS refrain of “no safe place” names the impossibility of inhabiting any environment and therefore of inhabiting safely one’s own body. Zwillinger’s images capture this impossibility visually. They emphasize through framing and lighting elements of MCSers’ environments that are both visible—building materials such as Susan M.’s mental countertops or Elaine S.’s foil-insulated shed—and invisible—vapors represented metonymically by face masks, which appear starkly white in the colorless photographs.

Indeed, across Zwillinger’s portraits, masks and oxygen tanks proliferate amid other trappings of everyday living. One way of interpreting these images would be to understand them as naturalizing (juxta)medical prostheses as mundane household artifacts. Yet one gets the feeling that Zwillinger has carefully arranged these objects to intrude on the family portrait, as in

the image of Jessica B. and Judith M (Fig. 7). In that photograph, a shining metal oxygen tank occupies the foreground, catching the light. A tray stacked with what appear to be pill bottles and a shining metal device that may be a home oxygen machine physically separate MCSer Jessica from her partner, Judith. This staging of the women in their living space visually resonates with Jessica's testimony that Judith experiences "compassion fatigue" caused by the stress of "long term daily care of a chronically ill partner" (23). Just as in her portrait of Susan M., Zwillinger here uses the visual form to make materially manifest what otherwise cannot be read on the body. The paraphernalia of illness in Jessica and Judith's portrait functions not only as a truth effect that testifies to Jessica's physical experience of ailing but also to MCS's social and somatic reverberations beyond Jessica's own body.

The proliferation of medical devices in Zwillinger's photographs also demonstrates that, like other forms of contemporary toxic discourse, *The Dispossessed* participates in a long and troubled tradition of gothification. Zwillinger's photographic style resonates aesthetically with the work of photographer Diane Arbus, whose black-and-white portraits of disabled and transgender people have been criticized for fetishizing these subjects as "freaks."¹⁰ Both artists use composition and lighting to evoke trauma as a threshold between the everyday and the extraordinary. Arbus describes trauma as one of the defining characteristics of freaks, whose bodies are a visual reminder that "most people go through life dreading they'll have a traumatic experience" (3). For Zwillinger, documenting chemically injured people is a means of drawing attention to the "collective trauma" caused by an ongoing chemical "holocaust" (11). The prominent placement of glinting oxygen machines and starkly white face masks in Zwillinger's portraits suggests MCS as an experience of trauma insofar as these objects disrupt or distract from the photographs' human subjects. Like Arbus's photographs of people living in institutions

for those with mental disabilities, Zwillinger's visual and narrative theme of cultural dispossession promulgates the perception that disability is necessarily isolating. This common narrative myth decontextualizes disability so that disability comes to be seen as "as a personal tragedy...and not the product of either chance or social processes" (Dolmage 43; see also Mitchell and Snyder, "Representation").

A comparison between Arbus and Zwillinger only goes so far. Whereas Arbus's relationships with her subjects was always aestheticized,¹¹ Zwillinger identifies as an "insider" (8). Her stated aim of "bring[ing] this epidemic to the forefront of the American consciousness" represents an important move to politicize MCS and toxic proliferation more generally as structural problems (11). Still, her photographs necessarily bear the weight of what Buell describes as the "ambiguous legacy" of American gothic imagery (44), which has long been invested in the en-freakment of disabled people. Arbus's work featuring people with disabilities and physical differences, which scholars have situated in relation to visual rhetorics of not only freakishness but also indigence and criminality, is only one example of this legacy.

I do not in any way intend to equate Zwillinger's photographic witnessing with Arbus's fetishizing artwork. But drawing a limited comparison between the two photographers' styles is useful in that it animates Ato Quayson's claim that "disability returns the aesthetic domain to an active ethical core" (19). Such a comparison might prompt thorny questions about toxicity as it functions as both an aesthetic and ethical category: What is the relationship between trauma as a characteristic of poisoned subjectivity and the enfreakment of disability? How does the topos of gothification impact the ways disability signifies within the frame of toxic discourse?

Navigating Identity Prejudice: *Amputated Lives*

MCSers, like other poisoned subjects, must navigate the unstable boundaries of the normal in order to claim recognition for toxic impairments. For both individual witnesses and those who take on the task of curating testimonial collections, this also means navigating the demands of different testimonial contexts. In Alison Johnson's MCS collection *Amputated Lives* (2008), witnesses make a case for their status as poisoned subjects by drawing on multiple overlapping discourses of disability and identity. Johnson and other MCSers represented in her anthology identify as disabled in order to make claims of identity prejudice and seek accommodation. In claiming a disability identity that would open routes of access to services and systems of redress for chemically sensitive people, *Amputated Lives* strategically defines disability in limited ways. It thus bears a complicated relationship to discourses of disability studies and disability justice, suggesting some of the challenges of locating the ur narrative of toxic exposure within these paradigms.

Amputated Lives compiles testimony from more than thirty people who identify as chemically sensitive alongside Johnson's extended analysis of late twentieth-century toxicity. The book is divided into two parts. In Part I, Johnson, who identifies herself as an MCSer, analyzes the origins and impacts of MCS in the contemporary US context. This section is organized around five major toxic events that exposed thousands of Americans to toxins and triggered many cases of chronic, debilitating chemical sensitivity: the outbreak of sick building syndrome at the EPA's Waterside Mall headquarters, the *Exxon Valdez* oil spill and cleanup, the (first) Gulf War, the 9/11 terrorist attacks, and Hurricane Katrina. Johnson quotes expert and witness testimony about toxic conditions and health impacts created by each of these events.

In Part II, people with multiple chemical sensitivity share their personal stories of environmental illness, in which they testify to the conditions of their toxic exposure, their illness experiences, and long-term impacts on their health and lifestyles. The thirty individual narratives stand alone, without editorial commentary, and do not appear to be arranged in any particular order. Instead, Johnson makes sense of these narratives by quoting extensively from witness testimonies in her analysis in Part I. Readers are therefore primed to interpret the individual illness narratives through Johnson's own framing of MCS as a disability structured by widespread skepticism about the condition. Witness testimonies and the overarching narrative Johnson constructs through the interpretation and curation of those testimonies thus mutually reinforce one another.

The master narrative of MCS that emerges from the multi-layered witnessing of *Amputated Lives* is of a single, preventable toxic exposure leading to chronic illness that undermines the narrating subject's ability to work and live as "productively" as in the past. Medical professionals, family members, and coworkers do not understand the condition of chemical sensitivity and suggest that the ill person is not physically sick but instead is either mentally ill or simply lazy. Witnesses use personal testimony to manage these challenges to their embodied knowledges by reframing of MCS as a physical disability against other forms of identification.

As she works to frame MCS as a disability in Part I of *Amputated Lives*, Johnson argues that lack of recognition of the condition is one of the primary difficulties facing chemically sensitive people. Throughout the collected testimonies, narrators describe being dismissed as "under stress," "psychosomatic," "hypochondriacs," "mentally unstable," or "delusional." The deep-seated skepticism they encounter reflects and reinforces existing ideas about the

intersection of environmental illness with gender, race, and class. MCS is a condition that has been strongly associated with women, who are thought to comprise up to 80 percent of people who identify as chemically sensitive (Gibson 477).¹² Moreover, despite high rates of toxic exposure among people of color and working class people of all races, MCS has typically been considered a disease of the white middle class (Radetsky 14–15; Alaimo 117–118).

Yet, many researchers dispute these common assumptions (eg. Caress and Steinemann; Kreutzer, Netra, and Lashuay; Meggs et al.). They argue that while people of all genders, races, and classes experience chemical sensitivity, MCS *diagnoses* are not evenly distributed throughout the population. Stacy Alaimo offers an analysis of MCS through an environmental justice lens that helps to explain how these disparities arise: given widespread skepticism in the medical community, “the route to the diagnosis category of MCS usually involves a fair amount of leisure time and other resources with which to conduct one’s own research and search for a sympathetic physician” (Alaimo 118). An EJ-oriented perspective suggests just how complex illness identity can be, since diagnosis itself is an effect of a complex alignment of intersecting social identities.

In turn, diagnosis creates disability as a gendered, raced, and classed phenomenon, often in very damaging ways. Disability theorist Anna Mollow, who herself identifies as chemically sensitive, argues that the perception of MCS as a white, middle class phenomenon masks the way that detractors have attempted to debunk the condition by associating it with feminine hysteria. “The feminization of [MCS] aids in discrediting those who claim to have it (‘hysterical women’),” she writes, “while its depiction as a disease of the white middle class distracts from the misogyny that informs such assumptions” (192–193). Deeply ingrained cultural ideas about

gender and mental illness shape medical and lay perceptions of MCS and permeate narrative accounts of living with the condition.

None of this is to say that physicians who do not accept MCS as a valid diagnosis are willfully cruel or even incorrect. Rather, I think it is important to recognize that even to acknowledge the testimony of people who identify as multiply chemically sensitive is to profoundly challenge the medical establishment.¹³ Beyond the question of whether the biomedical establishment does or should recognize MCS as a legitimate diagnosis is how this ingrained disbelief impacts access to resources for those who undeniably experience debilitating symptoms, symptoms which they believe to be caused by exposure to minute doses of chemicals. Skepticism about the condition can have material consequences and can produce conditions of testimonial injustice that deprive MCS witnesses of recognition as authorities on their own embodied experiences with illness. To understand these impacts, we should attend to the elision that occurs between the illness identity MCSer and the subject to whom it is attached.

More than one-third of the witnesses in Part II of *Amputated Lives* testify to doctors, coworkers, or family members challenging their identification as chemically sensitive and thus the value of their embodied knowledges. A woman named Sue testifies that doctors would roll their eyes and refuse to make eye contact with her after she identified herself as chemically sensitive (219). Kelly Colangelo, Phylliss “Dolly” LaJoie, and Sfc. Roy Twymon all describe being referred for psychiatric care when seeking medical care or social services for their physical ailments (269, 219, 213). When Dolly did see a psychiatrist, he told her that she was “delusional” (219). One man describes his physician’s outsized reaction to the patient’s self-identification as chemically sensitive: “He went ballistic and said, ‘So you’re one of those people. Let me tell you what, you just lost all your credibility with me.’ He turned in a negative report to the Social

Security board, which then denied me Medicare coverage” (Sfc. Terry Dillyhon in Johnson 137). In this account, the physician’s rejection of multiple chemical sensitivity as a legitimate diagnostic category leads him to reject the witness generally as a giver of knowledge. Skepticism here constitutes a form of testimonial injustice, which, as Miranda Fricker powerfully argues, is a form of *injury* that harms witnesses as subjects of knowledge. Moreover, while the proximate harm of such testimonial injustice may be epistemological, it also has important material effects. In the testimony quoted above, Sfc. Dillyhon suffers a loss of both his credibility and his chance at Medicare coverage.

The link between contested illness and social identity—particularly identities that are presumed to be visible on or through the body—suggests that the testimonial injustice to which MCSers like Sfc. Dillyhon are subject is rooted in and experienced as identity prejudice. Identity prejudice, which describes bias “against people *qua* social type,” is

the central case of testimonial injustice: the injustice that a speaker suffers in receiving deflated credibility from the hearer owing to identity prejudice on the hearer’s part, as in the case where the police don’t believe someone because he is black. Thus the central case of testimonial injustice can be defined (if rather telegraphically) as *identity-prejudicial credibility deficit*. This definition captures the kind of testimonial injustice that is connected with other forms of social injustice that the subject is likely to suffer. (Fricker 4, emphases in original)

Accounts like Sue’s or Sfc. Dillyhon’s above suggest that MCSers experience prejudice against their illness identity that devalues their testimony. Because their diagnosis is unbelievable, people who name themselves as having MCS become in-credible witnesses.

But the devaluation of MCSers as producers of embodied knowledges is shaped already by stigmatizing beliefs about who inhabits that illness identity. When MCS is described as a condition of white, middle class women, this demographic pigeonholing is then used to discredit people who complain of heightened chemical sensitivities as not only mentally ill but

“hysterical” (Mollow 192–193). Beyond simply misapprehending MCS as psychosomatization rather than a physiological condition, the label “hysteria” stigmatizes both chemical sensitivity and mental illness as feminine weakness. As Barbara Ehrenreich and Deirdre English explain in their groundbreaking *Complaints and Disorders*, medicine has long supported misogynist ideologies that “describe women as sick, and potentially sickening to men” (5). Often these designations have taken on classed significance as well. Through the technologies of medicalization, especially the medicalization of psychology, certain kinds of women patients come to be seen “as silly, self-indulgent, and superstitious” (ibid. 79). “Hysteria” is a term used to name and shame people who monitor and diagnose their own bodies as suffering from the inexpert anxiety of the privileged. It functions as a double-bind: hysterical people are too concerned with their bodies yet they cannot “read” them correctly. The lack of diagnosis of physical disease is taken as a sign of mental illness. When applied to environmentally-based illnesses like multiple chemical sensitivity, “the label ‘hysterical’...empties the illness of its environmental relevance” (Hosey 80). This process shifts the onus of illness away from systems of power and onto disordered subjects.

The accusation of “hysteria” to discredit complaining subjects and derail politics demonstrates why disability in particular calls for an intersectional analysis that takes into account the complex interactions of overlapping identities, each with their own histories, privileges, and identity-credibility matrices. “The presence of disability,” explains Tobin Siebers, “further feminizes the female other, further racializes the racial other, and further alienates the alien other. In each case, the association of disability with a particular group justifies exclusion from the community of rights-bearing people. Disability, then, is a significant factor in the right to have rights” (*Disability Theory* 180). The case of MCS demonstrates further that disability is a

significant factor in the right to produce viable or valuable knowledge. Identity-prejudicial credibility deficits can compound on one another, and disability may function to amplify existing barriers to testimonial justice. In the case of MCS, this is exacerbated by the politics of resentment, which causes observers to “wonder whether someone whose disability is not obvious is faking or exaggerating it; the trustworthiness of people who claim to be disabled but do not look disabled is always in question” (Wendell, “Unhealthy Disabled” 170). As a feminized condition; a disability; and a chronic, invisible, and contested illness, MCS produces complex, multi-faceted identity-prejudicial credibility deficits, which are refracted through individual subjects’ racial and gender identities. These identity politics are easily elided in an anthology collection like *Amputated Lives*, in which differences between witnesses are minimized in favor of shared experiences among the chemically sensitive.

For MCSers of all identities, the stakes of identity prejudice and accompanying testimonial injustice are high. One strategy for soliciting recognition in the face of testimonial injustice that appears again and again in witness testimony is to attempt to minimize identity prejudice by disidentifying with marginalized subject positions. This is particularly clear with respect to mental illness. As *Amputated Lives* witness Linda Baker testifies in the epigraph to this chapter, when investigators from the State Agricultural Department came to look into pesticide use in the school where she worked, “They admitted that they had initially thought they were coming to ‘talk to another nut.’” (158). Linda alludes to the damaging skepticism many MCSers face on a daily basis as they attempt to access services that would assist them in gaining workplace accommodations or finding appropriate medical treatment. But the narrative also makes clear a dichotomy that operates beneath the surface of many of the testimonies in Johnson’s collection as they engage such skepticism: “true victims” versus “nuts.” If nuts are

hysterical, true victims are rational. Being hailed as a true victim, as Linda is by state officials, signals that one's testimony is deemed credible.

The logic of victims versus nuts can be seen in Johnson's framing of MCS issues in the first part of *Amputated Lives*. In her introduction, she decries the fact that "some of those who insist that MCS is a psychologically based illness state that these people are suffering from agoraphobia, or fear of crowds. That's as cruel as saying to a paraplegic in a wheelchair, 'Too bad you don't like to walk'" (5). Here, the comparison to a person with paraplegia is used to testify to the embodied reality of MCS as a physiological condition, to make it visible through metaphor. But in this example the symbolic value of the wheelchair—the International Symbol of Access and arguably the single most recognizable sign for disability—is juxtaposed against agoraphobia, which by contrast appears immaterial and virtually illegible. In fact, Johnson misreads agoraphobia as a preference (as a "you don't like to") rather than as an impairment like paraplegia or chemical sensitivity.

The result of such comparisons is to remove mental illness from the realm of disability, as when Johnson describes a witness who was "told by one physician that she was a hypochondriac with no real health problems" (55). Johnson reports, by contrast, "It was very clear to me in the phone interviews I did with Dolly that she was a very sick woman" (ibid.). Johnson's goal in this passage is clearly to support Dolly's own assertion that her MCS is a valid and serious illness. But in denying that Dolly is a hypochondriac, Johnson also denies hypochondria and other mental illnesses the status of "real health problems." *Amputated Lives* thus reinscribes what Tobin Siebers critiques as a "caste system" that favors the physically disabled over people whose disabilities are of the mind (*Disability Theory* 78). On the one hand, MCS sufferers want their condition understood as physiological and environmental, which is an

important step toward accessing appropriate medical treatment and accommodation. Yet when this appeal takes the form of assertions that MCS is “real” over and against mental illness, it denigrates mental illness as less debilitating and less deserving of the accommodations MCSers seek for their own disabilities. In attempting to disrupt operant hierarchies of gender and visibility that frame disability, *Amputated Lives* reconfigures disability in a way that leaves mental illness outside the frame of recognition.

Amputated Lives also reframes discourses of class and labor structuring MCS, complicating the class politics of a condition often identified with the middle class. A few of the collected testimonials appear to blame toxic exposures on blue-collar workers, the poor, and the poorly educated. When Linda Baker explains the results of her investigation into pesticide use at the school where she used to work, the school janitor becomes the focus of her frustration:

A janitor who had no specific training in pest control and who by his own admission could barely read had applied the pesticides. Actually, his failure to keep the school clean had triggered the complaint that led to the business manager telling him to spray the building heavily. After he received this order, the janitor went to the school board office, grabbed three cans of pesticide left by pesticide salesmen, and applied them indiscriminately in the building. (158)

The narrative places responsibility for Linda’s toxic exposure with the janitor, whose limited literacy and “failure to keep the school clean” are offered as signs of incompetence that are also heavily laden with class-based stigmas. In another narrative, when Wanda Phillips and her husband were shopping for a FEMA trailer built in the aftermath of Hurricane Katrina, they are surprised to find that “some had bullet holes in them, and some of the trailers had undergone fire damage...[S]ome people in New Orleans had used the trailers to make crystal meth and they had exploded and burned” (131). Since Wanda and her husband, who own a home in rural Mississippi, do not end up living in one of the burned trailers, the comment seems extraneous, serving only to distance them from a New Orleans that is represented as dangerous and degraded.

Like Linda Baker's comments on the school janitor's reading ability and cleanliness, the reference to methamphetamines is freighted with not-so-subtle class and race codes. These disidentifying moves shift the focus from the political and economic conditions that have made toxic exposure the norm and instead single out individuals for a class-based critique that obviates structural analysis or coalitional politics in the face of pervasive toxins.

On the other hand, Johnson clearly attempts to establish MCS as an issue that spans socio-economic classes by including a broad spectrum of class and professional experiences in the narratives she curates. She also links class and citizenship in a structural critique of contractors' deliberate use of immigrants and undocumented laborers during the dangerous post-9/11 cleanup efforts. These laborers now have little or no recourse for seeking compensation for what Johnson claims are widespread injuries resulting from exposure to toxic dust "as caustic as drain cleaner" (85). Johnson critiques a nation that relies on politically abjected non-citizens to "get...America's financial hub running again" and draws an implicit parallel between the nonrecognition of undocumented labor and the nonrecognition of chemically sensitive people (ibid. 85). Johnson's approach to the politics of toxic exposure, which offers a more intersectional analysis than some of the testimonies she includes in her anthology, highlights how some attempts to minimize identity prejudice may contribute to the marginalization of the most vulnerable subjects within and beyond MCS communities.

Across class lines, work constitutes the primary ground on which witnesses in *Amputated Lives* claim justice as disabled people. Half of the narratives in Part II feature witnesses who testify that they quit or were fired from their jobs because of their condition. Johnson's anthology may even underrepresent the threat of job loss for people with chemical sensitivity. In one study, two-thirds of MCSers reported losing or being forced to quit their jobs as a result of their

condition (Gibson et al. 503). Many witnesses testify to both the material and emotional difficulties they experience after losing a job or being forced to stop working because of their disability. Rachel Hughes explains, “Because I have not been able to work for years, I have now spent all my savings, have had to sell my car and my home, and can no longer afford to rent my painting studio” (140). For some, like Bonnie Giebfried, her former work provided financial support and personal fulfillment, both of which are lost when she cannot continue in her job as an emergency medical technician. “That has been a big loss in my life because it was a profession I loved,” she testifies. “I am also struggling financially now” (166). In her own contributions to the volume, Johnson focuses on the loss of self-worth that some MCSers experience when they can no longer work. “The stories in Part II,” she argues, “illustrate how chemical sensitivity can destroy a productive life all too quickly” (5).

Productivity is imagined here in principally economic terms. “Work,” Johnson reminds us in no uncertain terms, “is the key to our existence” (11). The workplace is a frequent site of contest over rights and recognition for Johnson’s chemically sensitive witnesses. Institutional forms of recognition—in particular the right to workplace accommodation protected under the Americans with Disabilities Act and access to Social Security Disability Insurance (SSDI)—figure repeatedly in these MCS narratives and are central to witnesses’ claims for justice. As Bobbie Lively-Diebold explains, “I met the criteria for being handicapped and filed papers to be declared so. This allowed me to apply for reasonable accommodation under the Americans with Disabilities Act of 1990” (176). Victoria Savini testifies that she was able to continue working after adjustments to her work environment. “Because of [the] simple accommodations that my employer provides, I am able to keep working,” she explains. “It’s so important for other employers, including the federal government, to realize that people like me can be extremely

productive in a job if the employer is willing to do some simple things that allow us to continue working instead of treating us as though we are the ones at fault” (147). Those who cannot secure adequate accommodation, either because employers are not willing to “do some simple things” or because of the severity of their illnesses, may seek assistance from federal programs that provide disability benefits. Jill Sverdlove, for example, writes that she is “legally disabled and surviving on Social Security disability income” (210). Mike Potter “had to take early retirement at age forty-eight and get Social Security Disability Insurance” (151).

Access to legal forms of recognition and compensation is far from guaranteed, however. Causation is not a prerequisite for claiming SSDI, which requires only that claimants demonstrate their impaired ability to function. However, claims to Social Security benefits and workplace accommodation for MCSers have nevertheless been vigorously and successfully challenged in the courts (Murphy 104 n41). This is due in no small part to the perception that people who identify as chemically sensitive are hypochondriacs, phobics, or malingerers. Many MCSers seeking legal recognition, either to claim SSDI or to access the workplace accommodations theoretically afforded them under the ADA, ultimately make legal claims of mental, rather than physical, disability (ibid.). The politics of such claims are contested, as individuals and communities weigh the economic benefits of accessing these structures against institutional failures to recognize MCS as a legitimate physical condition within the dominant epidemiological paradigm. MCSers’ shifting dis/identifications with mental illness bring into sharp focus the import of what Siebers calls “complex embodiment” for understanding environmental illness as disability. Complex embodiment represents a development beyond the binary medical model/social model that recognizes “the body and its representations as mutually

transformative” (Siebers, *Disability Theory* 25).¹⁴ It also fleshes out, as it were, intersectional analysis by insisting on the imbrication of the social and the corporeal (ibid. 29).

While some testimony in *Amputated Lives* rejects the label of mental illness in a way that reconstitutes the caste system of disability, it would be overly simplistic to read such gestures as merely a symptom of “stigmaphobia” (McRuer 82). In “‘stigmaphobic’ sectors of identity communities...you find people scrambling desperately to be included under the umbrella of the ‘normal’—and scrambling desperately to cast somebody else as abnormal, crazy, abject, or disabled” (Bérubé viii). Poisoned subjectivity is a hierarchy-producing framework, and claims for recognition and redress for toxic injury are subject to the paradox of autobiographical representation theorized by Leigh Gilmore and discussed in chapter 1. But, as both *The Dispossessed* and *Amputated Lives* testify, cultural “frames of significance” directly impact how disability is recognized and accommodated by biomedicine, under the law, and in the workplace, and cultural understandings of disability have material consequences. If at times MCS witnesses reject labels of mental illness to claim the status of “true victim,” in other contexts the condition may only be legible as disability when identified with mental rather than physical impairment. Navigating the waters of testimonial injustice may require MCSers to reframe their living testimony—to performatively enact different orientations toward their illness identities at different scenes of witnessing.

Multiple Chemical Sensitivity’s Neoliberal Futures

The motif of a world without refuge that structures MCS as a toxic discourse suggests that no one is exempt from toxic exposure and its effects. Zwillinger’s and Johnson’s aggregated collections each make both minoritizing and universalizing moves to shift the frame around

MCS. The repetition of personal testimony emphasizes individual illness experience. Taken as whole, each collection also positions readers as potential victims of everyday toxins. As curators of MCS testimony, and as witnesses in their own rights, Zwillinger and Johnson draw explicit connections between individual stories of illness and widespread chemical hazards. While relatively few people currently experience acute chemical sensitivity, Zwillinger warns that toxic proliferation constitutes a “collective trauma” that “will surely reach critical mass” (11). Johnson levies the same argument through the metaphor of the canary in the coalmine, a prevalent image in MCS literature.¹⁵ In the preface to *Amputated Lives*, she describes MCSers as “proverbial canaries in the mine alerting us that the rapid proliferation in chemical products in our environment may be endangering us all” (np). People who become ill in response to minute levels of environmental toxins, Zwillinger and Johnson suggest, serve as a warning that such toxic exposures will soon threaten even those who do not yet seem to react to the incitants that pervade our lives. This is a move to universalize chemical sensitivity as eventually affecting everyone. That is, *The Dispossessed* and *Amputated Lives* bring audiences within the sphere of disability, rather than exempting exceptional subjects from that category, as do so-called Supercrip narratives and other rhetorics of disability that uphold an abled/disabled binary.

The universalization and politicization of MCS constitutes a challenge to some of modernity’s most alluring fictions. The underlying problem theorized by these testimony collections is the proliferation of (often untested and undisclosed) human-made chemicals throughout all aspects of human culture. The problem is not the canary, but the coalmine. In other words, chemical sensitivity should not be treated as merely an individual problem requiring individual medical treatment. Instead, argues Stacy Alaimo, truly addressing MCS “would entail a staggeringly thorough overhaul of nearly all military, industrial, manufacturing, agricultural,

domestic, and consumer practices” (114–115). Alison Johnson specifically links ignorance of the problem of chemical exposure to corporate profits:

It’s hardly surprising that industry doesn’t want anyone to believe that chemical exposures could produce a debilitating condition like MCS. The consequences for corporations would be enormous if members of the public increasingly began to wonder if installing new carpet, using pesticides in their house or yard, or buying particleboard cabinets or furniture might affect their health. (8)

Yet the ur narrative produced by these testimony collections relies on the interrelated vocabulary of capitalism, nationalism, and citizenship that undergird the practices of production and consumption Zwillinger and Johnson criticize.

This is particularly clear throughout *Amputated Lives*, which is structured along the lines of major American toxic disasters. Testimonies included there from Gulf War veterans and 9/11 cleanup workers especially hail readers as Americans through patriotic rhetorics of liberty, duty, and sacrifice (John Sferazo 109-110, Sfc. Roy Twymon 214-215). Productivity is used as a barometer for the impact of chemical sensitivity not only on individual health but on the health of the nation. Johnson expresses concern that “chemical sensitivity can destroy a productive life all too quickly” and thus “has the potential to be a huge drain on public finances” (6). MCS presents a biopolitical problem that threatens national interests. “At some point,” she writes, “America’s leaders must realize that their refusal to take toxic exposures seriously is in the long run a costly mistake that engenders not only potentially large legal settlements but also creates a group of citizens whose health is so impaired that they will need public assistance to get through life” (106). While less pronounced, Zwillinger mobilizes similar discourses of efficiency to argue for attention to the needs of chemically sensitive people. After detailing the economic costs of poor air quality in workers’ compensation, lost productivity, and lawsuits, she argues that “it is in

the corporate technological industries' best interests to learn more about this illness" (10). Doing so will "keep the MCS worker working" (ibid.). In disabling workers, MCS disables industry.

These moves to rationalize disability demonstrate that (to paraphrase Berlant, following David Harvey) under neoliberalism disability may come to be defined as the inability to work (*Cruel Optimism* 95).¹⁶ Zwillinger's and Johnson's concerns with the efficiency of American capitalism suggest what David Mitchell and Sharon Snyder name a new "ablenationalism...in which some aspects of disability have entered into the discourse of American exceptionalism as a normative claim" ("Minority Model" 42).¹⁷ Ablenationalism theorizes "the ascendancy of a more neoliberal contemporary concept of disability...based on advocacy of assimilation through social accommodation—that is, the entry of a normalized disabled body into the social sphere of active citizenship promoted by democratic social orders" (ibid. 42–43). This assimilation of the disabled body is part and parcel of the neoliberal valorization of flexible bodies that organizes compulsory able-bodiedness (McRuer 18).¹⁸

In emphasizing MCSers' continuing value to the corporation and the nation, Zwillinger's and Johnson's testimony collections reproduce one of the central tenets of neoliberalism's ideology of the body: that, "[p]ossessed of agile responses, and flexible specificity, our adroit, innovative bodies are poised to anticipate any conceivable challenge" (Martin 37). Rather than posing a radical challenge to the endless expansion of capitalism, under the regime of flexible bodies debilitating chemical exposures become once again a problem lodged in individuals, who either respond flexibly or are consigned to the realm of the unproductive. Under neoliberalism, "disability itself is seen as a personality flaw," because disabled people are always already presumed to have bodies that are limited and limiting (Dolmage 159 n9). The turn to ablenationalism in these MCS narratives suggests a trend that will become more apparent in my

analysis moving forward: The formation of the poisoned subject has become increasingly attached to neoliberal forms of subjectivity and governmentality in the twenty-first century, even as contemporary poisoned subjectivity emerged through feminist- and working class-identified embodied politics of the 1960s and 1970s.

Notes to Chapter 2:

¹ Quoted in Alison Johnson's *Amputated Lives*, 158.

² Multiple chemical sensitivity overlaps with an array of contested illnesses, including Gulf War syndrome, sick building syndrome, food intolerance syndrome, twentieth century disease, and toxin-induced loss of tolerance (Alaimo 114; see also Radetsky). These environmental illnesses are characterized by acute adverse reactions to low-level exposure to multiple everyday chemicals. MCS may manifest in a wide variety of symptoms affecting multiple bodily systems (respiratory, nervous, etc.) within a single patient (Radetsky 13). MCS is distinct from other familiar forms of sensitivity to chemicals: classical toxicity (such as lead poisoning) and IgE-mediated allergy (such as common food, pollen, and pet dander allergies) (Ashford and Miller 34). Although there is no consensus about the mechanisms or underlying causes that produce the wide array of symptoms associated with the condition, MCS is generally thought to arise through a two-pronged process of exposure. An initial sensitizing exposure—usually to a relatively large dose of chemicals such as when spraying one's home with insecticides—precipitates the condition. Later, repeated triggering exposures cause debilitating symptoms once the body has been rendered highly sensitive by the earlier, sensitizing exposure. These triggering exposures may produce acute illness in response to even trace amounts of toxins, and symptoms may be triggered by any number of chemicals, including but not limited to the chemical(s) that caused the sensitizing exposure.

³ *Normate* is a term coined by Rosemarie Garland Thomson that designates an ideally powerful subject position. The normate can be identified “by peeling away all the marked traits within the social order,” leaving, in the contemporary US, a straight, cis-gendered, able-bodied, white male who possesses other markers of cultural capital, including (a certain kind of) college education and white-collar employment (Thomson, *Extraordinary Bodies* 8). The concept of the normate extends “beyond the simple dichotomies of male/female, white/black, straight/gay, or able-bodied/disabled so that we can examine the subtle interrelations among social identities that are anchored to physical differences” (ibid. 8).

⁴ We might think of the frame as *paratext* that constitutes the threshold of the image. On this construct, the picture frame is specifically analogous to what Gérard Genette calls the peritext (see note 9). While peritext may at times seem extraneous, it offers important signals about and can powerfully shape interpretation.

⁵ I acknowledge that I am playing a bit fast and loose with terminology here. Neither these anthologies nor the individual testimonies collected within them is technically memoir, if one understands memoir as a genre that arose historically in conjunction with the novel, that is dialogical, and that narrates a set of connected experiences (Couser, *Memoir* 15; Quinby 299; Smith and Watson, *Reading* 274). But, as Couser notes, memoir is also a subgenre of life narrative that is usefully understood along two continua—autobiography-biography and memoir-novel—which distinguish the relational and ethical work of the genre, respectively.

⁶ Zwillinger self-identifies as an “MCS sufferer” and uses that term to describe others represented in her collection, but this language is not widely used in the MCS testimony I have encountered. I will be using the terms “MCSer” or “chemically sensitive person” throughout this dissertation to refer to individuals who identify themselves as experiencing this condition. While I agree with Liz Crow, Susan Wendell, and other feminist disability critics who want to lift the taboo within some disability communities on speaking about suffering as part of the experience

of impairment and disability, I am reluctant to identify an illness community of which I am not a part primarily through the experience of pain.

⁷ According to Zwillinger's narrative of her project's development, work on *The Dispossessed* began in 1993. A smaller number of images than appears in the book were displayed that year in an exhibit in an Amsterdam museum (Zwillinger 8).

⁸ Murphy rightly notes that women, who are expected to engage in elaborate grooming and body-monitoring practices, tend to be more practiced at such caretaking performances than men. Makeup, hair removal, weight management, birth control technologies, and women's routine reproductive health screenings are all forms of body management. Murphy's analysis suggests a possible explanation for the apparently higher rates of MCS among women than men. Women may be more likely to recognize adverse reactions, seek diagnosis, and engage in practices of treatment and prevention because we tend to be savvier managers of our own (and others') bodies through a lifetime of training in feminine grooming and domesticity.

⁹ The French structuralist Gérard Genette coined the term peritext to describe materials that appear within a volume but are distinct from the literary work itself, including formats, publishers' emblems, cover pages, dedications, prefaces, epilogues, and other spatial and material apparatuses. Together, the peritext and the epitext (the physical and social apparatus outside the volume) make up what Genette calls paratext—the threshold between text and world. Sidonie Smith and Julia Watson explain the paratextual threshold: "Paratextual materials—peritexts and epitexts—may appear to be 'neutral' aspects of the presentation of a text, but ...[they] affect its interpretation and reception by variously situated reading communities" (*Reading* 100). In the case of *The Dispossessed*, introductory essays by doctor Gunnar Heuser, a chemically-injured nurse named Lynn Montandon, and editor Zwillinger, as well as an epilogue by sociologist Steve Kroll-Smith, make deliberate claims for how the photographs, testimonies, and subjects represented within the volume should be understood.

¹⁰ "Freaks" is Arbus's own word for her subjects. The authors of *Picturing Disability* note the common use of "freak" to describe hippies and beatniks in the 1960s when Arbus was working. "In that context," they write, "it was not necessarily as negative as it is today" (Bogdan 134 n6). See David Hevey's "The Enfreakment of Photography" for a critique of Arbus's work.

¹¹ Although Arbus knew many of the people she photographed relatively well and maintained relationships with them for years, she always saw them as people with whom she might be close but never intimate. Comments she made about her subjects indicate that she believed "freaks" belonged to the world of "legend" or fantasy (Arbus 3). This stands in stark contrast to Zwillinger, who does not romanticize the trauma and isolation that she evokes in her photographs.

¹² Those who agree that women are indeed more susceptible to chemical sensitivity offer both physiological and cultural explanations. A number of biological sex differences have been implicated, including body size, fat deposition, estrogenic activity, paternal antigens, and alcohol dehydrogenase levels (Gibson 476; Freeza et al.; Miller). Gendered expectations about personal grooming and domestic maintenance may also play a role. Women remain the primary consumers for households and families, and are themselves the primary users of cosmetics, fragrances, and household cleaners that may trigger MCS reactions (and contain parabens, petrochemicals, endocrine disruptors, neurotoxins, and known carcinogens) (Murphy 98–99).

¹³ As Michelle Murphy notes, individual doctors may credit patients' accounts of illness or offer an MCS diagnosis, but to do so falls outside the official positions of the major professional

associations and has certainly not been the norm in the United States. Murphy cites position statements from the American Academy of Allergy and Immunology, American College of Physicians, American Medical Association, and California Medical Association challenging the field of clinical ecology or the diagnosis of MCS (88 n2). In 1994, a joint position paper by the American Lung Association, American Medical Association, Environmental Protection Agency, and Consumer Product Safety Commission rejected the idea that MCS is psychogenic in nature, although these agencies cautiously refer to MCS as a “diagnostic label” (20). Albert Donnay emphasizes that, despite a lack of medical consensus, “[d]ozens of federal, state, and local authorities accept MCS as a legitimate disease and/or disability that deserves reasonable accommodation in housing, employment, and public facilities” (383). It would be misleading to paint a picture of MCS as a diagnosis entirely on the fringe of the medical establishment. In fact, it is precisely the contested status of the condition that makes access to medical, legal, and social support so uncertain for many MCSers and creates markets for testimony collections like Zwillinger’s and Johnson’s.

¹⁴ See note 18 to the Introduction.

¹⁵ The image of the canary in the coalmine is suggested in the titles of other MCS literature, like the popular newsletter *Canary News* and Lynn Lawson’s autobiographical introduction to her book *Staying Well in a Toxic World*, which is called “Notes from a Human Canary.” Some MCSers even use the term “canary” as an alternative to “MCSer” or “chemically sensitive person” (eg. “Safe Canary Nest” np). With these allusions, chemically sensitive people compare themselves to the canaries that nineteenth-century coal miners used to warn them of dangerous buildups of methane and other gasses before they became life-threatening to humans. The metaphor suggests that people who currently experience MCS should be an early warning to others about the risks of chemical proliferation.

¹⁶ Berlant links her work on slow death and crisis ordinariness to what she calls Harvey’s “polemical observation...that under capitalism sickness is defined as the inability to work” (*Cruel Optimism* 95). Harvey’s argument is that under capitalism, people are expected to function as variable capital. As such, unproductive, undisciplined (in a Foucauldian sense), ill, or otherwise pathologized people do not admit the extraction of surplus value from their labor. His point is actually broader than what Berlant elaborates, for Harvey sees the relegation of the ill to either the institution or the underclass as part of the reconstruction of race into “distinctly capitalist” formations (106).

¹⁷ Mitchell and Snyder are here repurposing Jasbir Puar’s concept of homonationalism, “the dual movement in which certain homosexual constituencies have embraced U.S. nationalist agendas and have also been embraced by nationalist agendas” (Puar, *Terrorist Assemblages* xxiv). Ablenationalism describes a disability politics, especially prominent in the United States, which has followed other civil rights-based models in demanding access to majority social privileges without a critical analysis of who has access to the dominant community’s norms or whether and under what circumstances those norms might be sustaining or life-affirming. “So, for instance, curb cuts made wheelchair accessibility feasible, audible signals at intersections and Braille signage accommodated those with visual impairments, and lighting-based signaling systems in the home or hotel provided those with hearing impairments with the means to more adequately respond to cues in a hearing world. Yet the emphasis in each of these instances did not necessarily result in a meaningful integration of differences. Rather, accommodation provided those bodies with levels of already integrable disability into normative frameworks that did not

significantly upset or disrupt environments suited to a narrow range of abilities” (Mitchell and Snyder, “Minority Model” 47). Ablenationalism produced a class of “able-disabled” people who are defined against an abjected, non-normative class of unproductive or unassimilable disabled people. We can see this aspect of ablenationalism at work in MCS narratives’ assertion of the mental fitness of chemically sensitive people.

¹⁸ McRuer draws on Adrienne Rich’s concept of compulsory heterosexuality to theorize the connections between the production of sexual and bodily normativity through what he calls compulsory able-bodiedness. He argues that, “despite the fact that homosexuality and disability clearly share a pathologized past and despite a growing awareness of the intersection between queer theory and disability studies, little notice has been taken of the connection between heterosexuality and able-bodied identity. Able-bodiedness, even more than heterosexuality, still largely masquerades as a nonidentity, as the natural order of things” (1). I discuss McRuer’s contributions to ideas about neoliberal flexibility in chapter 1.

Chapter 3

Toxic Life Narrative in the Alternative Food Movement

Though seldom articulated as such, the attempt to redefine, or escape, the traditional role of consumer has become an important aspiration of the food movement. In various ways it seeks to put the relationship between consumers and producers on a new, more neighborly footing, enriching the kinds of information exchanged in the transaction, and encouraging us to regard our food dollars as “votes” for a different kind of agriculture and, by implication, economy.
-Michael Pollan¹

In a June, 2010, essay in *The New York Review of Books*, local food guru Michael Pollan outlined the broad goals and internal tensions of a growing set of political, economic, and gastronomical trends he calls simply “the food movement”—really a loosely-related body of movements advocating related agendas of organic agriculture, workers’ rights, animal welfare, and food sovereignty (“Food Movement” np). The food movement Pollan describes here privileges consumers as the primary stakeholders in a food economy and reframes consumption as a political act. A more ethical consumerism, the argument goes, will change the food system through market mechanisms.

Within the discourses of toxic proliferation and poisoned subjectivity I have been tracking, the most prominent strand of what I will be calling here the “alternative food movement” represents a neoliberalization of toxic discourse that exists in tension with the grassroots collectivism of embodied health movements.² Mainstream alternative food advocates have turned away from food justice paradigms that seek structural changes to conditions of food

production in favor of a toxic discourse that locates both risk and politics in practices of consumption. If industrial food threatens to bring carcinogenic or endocrine-disrupting chemicals into consumers' bodies as pesticide residues, eating alternatively offers protection to those who can afford it. This chapter interrogates the imagined role of consumers in advancing anti-pesticide agendas within the alternative food movement by looking at autobiographical texts by two of the movement's most public faces: Michael Pollan's *The Omnivore's Dilemma* and Barry Estabrook's *Tomatoland*.

These writers' journalistic explorations of industrial food production are characteristic of alternative food's popular literature in blending autobiographical and exposé forms to address a set of interlocking environmental, epidemiological, and economic concerns. The alternative food movement is not only or even primarily concerned with environmental toxins, but its attention to agricultural chemicals cannot be disentangled from other movement goals, such as those regarding public health outcomes, animal rights, or localism. The literature of alternative food reaches beyond, even as it constitutes, toxic discourse. In focusing primarily on alternative food's journalistic exposés as forms of toxic life narrative, this chapter in many ways represents the limit case of my dissertation's central concerns.

The status of mainstream alternative food as an embodied health movement is also ambiguous. While alternative food discourses invoke bodies to promote political identification, the bodies most at risk—agricultural laborers, the vast majority of them Mexican migrants, many undocumented—are not placed at the center of the movement's claims toward bodily crisis, as represented by Pollan, Estabrook, and other mainstream voices. Instead, the movement mobilizes a discourse of cultural trauma in which the risks of industrial food production threaten the bodily integrity of the middle class consumer of both text and food. In *The Omnivore's Dilemma*, wage

labor is simply erased; farmers are imagined as owner-operators, and consumer health and pleasure are the ultimate barometers for the ethicality of a food system. In *Tomatoland*, the specter of endocrine-disrupting and teratogenic pesticides—prompting gruesome accounts of eyeless, limbless, and severely impaired babies born to migrant farmworkers—haunts the narrative as a warning about *consumer* safety. Toxic threats to reproductive and working bodies are mobilized to discipline consumer choice with the aim of compelling corporate responsibility.

In the face of what they portray as the industrial food system's chemical abuses and corporate negligence, alternative food advocates encourage readers to practice a form of consumerism they deem both ethically and aesthetically superior. Even as they draw on toxic discourse's framework of a moral drama played out on a David versus Goliath scale, neither Pollan nor Estabrook gives serious attention to the possibility of collective political action that would bring about a radical shift in the policies of free trade, privatization, and deregulation that have made exposing farmworkers (and, yes, consumers) to dangerous chemicals just one of the costs of doing business. Rather, they propose individual solutions to what they acknowledge are structural problems, encouraging readers to vote with their consumer dollars in the belief that industrial agriculture will be forced to meet middle class consumers' increasing demands for food that is "not only good to eat, but good to think" (Pollan, *Omnivore* 289). Ultimately, this logic blunts structural critiques that are embedded within alternative food politics. In particular, the political vocabulary of "alternatives" shores up neoliberal ideologies that privilege good consumerism as good politics.

Alternative food narratives are inheritors of a multifaceted history of food politics in the United States. In contrast to early anti-pesticide action by the United Farmworkers' Union, in many ways an important predecessor in its use of testimony to link producers and consumers of

food, the narratives of today's mainstream alternative food movement represent a consumer-oriented approach that favors individualism over collective action. This kind of “not in my body” politics has helped to transform the alternative food movement from a radical critique of industrial agriculture into a prestige movement that allows the economically privileged to insulate themselves from toxic harms while leaving the most vulnerable constituencies to continued exposure.³ Building on food systems scholars' critiques of the economic logic of alternatives,⁴ I consider how life writing has helped to advance market-driven solutions in the form of a flexible, ethical consumerism embraced by mainstream alternative food activists. These are, at heart, issues of testimonial justice that shape toxic discourse and the direction of environmental critique of industry writ large.

Alternative food narratives bring together the interrelated issues of sex and gender, ability and disability, production and reproduction implicit in contemporary toxic discourse to suggest a set of questions that resonate across all of the embodied health movements considered in this project: What are the stakes of claiming identities around toxic exposure? How and on whose behalf is toxic testimony mobilized? Which bodies, identities, and testimonies are valued or marginalized by the vocabularies of normativity, ability, and productivity that have long been central to environmentalist critiques of toxic proliferation?

Defining Alternative Food as an Embodied Health Movement

Like any social movement, alternative food is a heterogenous network of institutions and activists with overlapping but non-identical agendas.⁵ Inevitably, scholars parse the various strands of alternative food politics differently. Jill Lindsey Harrison identifies four realms of what she calls alternative agrifood activism—“the farmworker justice movement, antitoxics

critics of conventional agriculture, alternative farming organizations (including sustainable farming and small farm advocates), and food reformers (a diverse category that includes nutritionist ‘what to eat’ diet reformers, gourmet ‘foodies,’ and antihunger, food justice activists)” (*Pesticide Drift* 145). Patricia Allen, on whose work Harrison is building, sees sustainable agriculture and community food security as the most prominent among a proliferation of agrifood movements (21). Michael Pollan singles out environmental and epidemiological concerns as having “the strongest claim to public attention” within a movement “unified as yet by little more than the recognition that industrial food production is in need of reform because its social/environmental/public health/animal welfare/gastronomic costs are too high” (“Food Movement” np).

For my part, I follow food systems scholar Julie Guthman in using “*alternative food* as a shorthand to describe institutions and practices that bring small-scale farmers, artisan food producers, and restaurant chefs together with consumers for the market exchange of what is characterized as fresh, local, seasonal, organic, and craft-produced food” (*Weighing In* 3, emphasis in original). Within this definition lies a recognition that, in large part due to the amplification of voices like Pollan’s, thornier issues of food *justice* have given way to alternative food as a prestige movement focused on finding market-driven solutions to the concerns of consumers. Food systems scholars have begun to articulate a forceful critique of these politics. Alternative food’s predominant “narrative linking the production and consumption of local organic food to positive economic, environmental, and social changes,” critics assert, assumes “a group of ‘like-minded’ people, with similar backgrounds, values, and proclivities, who have come to similar conclusions about how our food system should change” (Alkon and Agyeman 2–3). That those conclusions tend to serve the interests of the white, middle class consumers who

have been the public face of alternative food comes as little surprise. Emerging critiques call out the mainstream alternative food movement for its neglect of issues of race and class justice within the industrial food system. These critiques align with this dissertation's larger project of approaching testimonial injustice within environmental discourses through an intersectional feminist analysis. Together, environmental and testimonial justice analytic lenses can reveal how personal testimony is used within alternative food literature to represent relationships between producers, consumers, and toxic risk.

As we have seen, embodied health movements are defined by three key characteristics (Brown et al. 52–55). Alternative food clearly meets the second and third of these criteria. Proponents of organic, local, and sustainable food production challenge the dominant trends in agricultural and nutrition science (often with explicit opposition from the two government bodies that drive food policy in the United States: the FDA and the USDA).⁶ They also collaborate with members of the scientific and healthcare communities—from ecologists to food scientists to nutritionists—to further their research and policy agendas. Scholars have shown how discourses of bodily health and wellness drive food movement agendas, from farm-to-school initiatives to weight-loss claims,⁷ and alternative food is not alone among embodied health movements that do not focus on a specific medical condition.⁸ While it is quite clear that alternative food constitutes a health social movement, somewhat muddier is the question of whose bodies and experiences are shaping movement goals. As I have suggested, if today's mainstream alternative food movement places bodies at the center of its analysis, there is a profound disconnect between the bodies represented as having experienced illness or disability as a result of industrial agriculture and the bodies that local, organic food is meant to protect. Alternative food differs in this respect from, say, the DES movement, which is driven by and seeks to ameliorate the embodied

experiences of constituencies directly impacted by exposure to the drug. Approaching alternative food through the rubric of embodied health movements helps to elucidate how collective political identities have structured and advanced the dominant narrative of alternative food politics throughout the late twentieth and early twenty-first centuries.

In particular, I am concerned here with the role of testimony in shaping perceptions of the risks posed by agro-industrial chemicals. Who is represented as being at risk? In what ways are the effects of these chemicals represented as adverse or risky? On whose behalf are claims for rights or justice around pesticide exposure made, and how are those claims articulated? Questions about toxic risk are crucial to understanding contemporary alternative food politics. Food movements have addressed pesticide exposure throughout the twentieth century, and alternative food is one of the primary sites—and certainly the most public face—of anti-pesticide politics today. In the next section, I offer a brief history of pesticide discourse in the United States, considering how different lineages of pesticide politics have shaped the toxic discourse of today's alternative food movement.

Pesticide Discourse

The publication of Rachel Carson's *Silent Spring* (1962) is often touted as the principal catalyzing event of anti-toxics activism and the renewed vitality of the environmental movement in late twentieth-century United States. Greg Garrard claims that "it is generally agreed" that *Silent Spring* is "the founding text of modern environmentalism" (*Ecocriticism* 1–2). Buell calls Carson's book the "effective beginning" of toxic discourse and develops his schema of four defining toxic topoi around a reading of the work and the woman embraced by environmentalists "as harbinger, prophet, and foremother" (35; 44). Like Buell, historian Linda Nash notes how

Carson's legacy influenced the agenda and strategies of environmental justice advocates and challenged biomedical understandings of the spatiality of disease. Ursula Heise locates *Silent Spring* within her history of the literature of the "world risk society," and Rob Nixon sees Carson as addressing the challenges of representing the "slow violence" of environmental crises.

The importance historians and environmental critics place on *Silent Spring* has also meant a privileging of Carson's narrative of the pesticide industry as "a child of the Second World War" (16). Under the influence of Carson and the sociological theories of risk put forward by Ulrich Beck and Anthony Giddens, World War II has arguably become the second most important event (following only *Silent Spring*) in narratives of the rise of toxic risk. Both World Wars I and II fueled rapid scientific and industrial development, including the synthetic pesticides Carson decries in her now-classic exposé. The federal government released excess supply of these chemicals into consumer markets after WWII. With the help of a growing advertising industry that drove new consumer demands in the booming post-war economy, this military technology became a commercial and household product, helping to mitigate the economic impact of leveling off in war-related industries. These conditions led directly to the widespread use of DDT and other synthetic pesticides at mid century. Carson hammers home this history in her book with frequent references to World War II and repeated invocation of nuclear discourse. The received narrative points to the war and *Silent Spring* as the origins of toxic proliferation and toxic anxieties, respectively.

These admittedly simplified but widely repeated narratives about the rise of synthetic pesticides and accompanying toxic discourse can be both revealing and concealing. The focus on these two historical moments is most compelling with respect to the rise of toxic discourse throughout the second half of the twentieth century. Adequately situating alternative food within

this discourse requires a longer view, however. While *Silent Spring* was truly a watershed moment in US environmentalism that would shape the future of anti-pesticide politics, the constant harkening to the book within environmental criticism's origin stories misleadingly suggests that *Silent Spring* is the *source* of these politics. In actuality, Carson's book was so successful in part because it built on previous scientific work and tapped into latent public interest in pesticide poisoning. While still recognizing what was new about the glut of synthetic organic pesticides that flooded consumer markets in the wake of WWII,⁹ as well as the backlash these developments engendered from Carson and those who came after her, some scholars have pursued a more robust history of anti-toxics politics. Robert Gottlieb puts Carson's anti-DDT stance in context with earlier pesticide scares:

The pesticide explosion, including the development and use of chlorinated hydrocarbons such as DDT, largely dated from World War II, although a range of poisonous and potentially harmful insecticides—inorganic chemicals and heavy metal products such as lead arsenate—had been widely used prior to the war. These insecticides had also been controversial: a series of insecticide-related food poisonings during the 1920s, for example, generated significant public protest, including demands for product bans and stronger regulatory actions by the Food and Drug Administration. One best-selling book of the 1930s, *100,000,000 Guinea Pigs*, focused on the hazards of consumer and industrial products and specifically singled out lead arsenate for a possible product ban. (127)

Some scholars have positioned Carson as an intellectual daughter of early twentieth-century industrial hygienists and industrial toxicologists like Alice Hamilton (eg. Gottlieb; Sellers). Buell, too, acknowledges this history, citing Hamilton as part of a tradition of urban gothic that influenced *Silent Spring*'s darker imagery (43). Buell is not the only ecocritic to insist on a more complex historical account of the toxic landscape, but World War II and *Silent Spring* continue to cast long shadows that may unwittingly obscure other lineages.

Certainly, Carson's legacy has played an important role in shaping contemporary alternative food discourse. If *Silent Spring* reinvigorated popular environmentalism in the United

States, it also put pesticides at the center of environmentalist critique, laying the groundwork for the renewed interest in organic and low-input farming methods in the 1960s and again at the end of the twentieth century (Guthman, *Agrarian* 36–41; Allen 30; Conkin 192). But the first wave of the organic movement began decades earlier, in the 1930s and early 40s, responding not only to agricultural industrialization but also to the dust bowl (in the US) and the economic and ecological destruction wreaked by colonialism (in the UK) (Guthman, *Agrarian* 4). Moreover, the conditions of food production have been central to various US social movements focused on both consumer safety and workers' rights since at least the 1830s (Allen 30–32). At least as important to the development of today's food movements as *Silent Spring* is Upton Sinclair's *The Jungle*, for example, which critiqued the turn-of-the-century Chicago meat industry for its low wages, horrendous record of workplace injury, and complicity in a system of finely-tuned exploitation of immigrant labor. In addition to its central role in shaping the regulation of food production through the passage of the 1906 Pure Food and Drug Act, *The Jungle* also anticipates toxic discourse (L. Buell 42–44). Sinclair's muckraking style has clearly influenced the many exposés of industrial agriculture coming out of the alternative food movement in the twenty-first century, including Pollan's and Estabrook's.¹⁰ Understanding the contemporary alternative food movement as a site of anti-pesticide politics and a form of toxic discourse requires that we look beyond the Carson-centric narrative that characterizes—and at times limits—much environmental criticism. Instead, alternative food and its life narratives are products of multiple genealogies.

In particular, I would like to draw attention to the anti-pesticide activism of the United Farmworkers of America as a precursor to today's alternative food movement. Many scholars have discussed the importance of the UFW's anti-pesticide campaigns in the history of

environmental and food justice movements. According to Jill Lindsey Harrison, the UFW's pesticide work in the 1960s was the first time the issue of pesticide exposure "garnered a significant public spotlight" (*Pesticide Drift* 147). While other groups, including the Sierra Club and the Audubon Society, engaged in anti-pesticide work during this period, the 1965-1971 UFW campaign departed significantly from the work of environmental groups primarily concerned about DDT in the wake of *Silent Spring*. Rather, farmworkers, who already possessed first-hand knowledge of the effects of pesticide exposure,¹¹ linked growing public concern about environmental degradation to political and economic critiques of their working conditions. Instead of a narrow approach, the UFW engaged multiple strategies to reach a broad range of stakeholders with different political and economic interests in reducing the use of pesticides in food production. Two of those strategies bear particular attention in relation to today's alternative food literature: the well known consumer boycott of grapes and the use of personal narrative, which has received less attention both in histories of the UFW and in food systems scholarship.¹²

The UFW's grape boycott, begun two years into a targeted anti-pesticide campaign in the summer of 1967, signaled a shift in strategy with important consequences for the union and for future social movements. Organizers had been lobbying for new contracts with California grape growers that would improve both the economic and physical conditions of farm labor, increasing wages, protecting workers who refused to labor under dangerous conditions, and eliminating the use of certain dangerous pesticides (including DDT, which would finally be banned by the EPA in 1972). Faced with intense opposition, the UFW turned to "a new and untried strategy," pressuring growers at the retail end by coordinating a massive consumer boycott of table grapes (Pawel 31). By leveraging consumer pressure against retail stores—who in turn pressured

growers, switched to union-approved suppliers, or stopped carrying grapes altogether—boycott organizers eventually succeeded in securing new contracts with slight economic gains but which provided workers new protections from pesticide abuses.¹³

In order to convince shoppers to leave grapes rotting on supermarket shelves, union members and their supporters tapped into consumers' self-interests. Through a multi-faceted strategy that emphasized farmworkers' rights as an intersectional struggle, the UFW appealed to groups of consumers who felt either race- or class-based solidarity with its members (Pulido 108-109). In order for the boycott to succeed, organizers recognized that they also had to "spread the gospel" to middle class whites who may not have sympathized with either Chicana/o empowerment or the labor movement (Pawel 35). While organizers always continued to emphasize the health risks to food producers, they also linked the plight of farmworkers to consumers' health.

In her book *Environmentalism and Economic Justice*, Laura Pulido reproduces a leaflet from the AFL-CIO archives warning that "Only a Union Contract Can Protect Farmworkers & Consumers From Dangers of POISONOUS PESTICIDES" (106). A split image, with a crop-dusting plane at the top right and bunches of table grapes on the bottom left, collapses the space between the field and the supermarket, suggesting that pesticides are being sprayed directly on the produce section. Text below the image explains, "DDT has been scientifically connected to the death of fish, sterilization of birds, and cancer in mammals. Doctors and scientists are deeply concerned about the long-range effects of DDT on human beings, both in the living and on those yet to be born." This boycott advertisement amplifies the authoritative power of science through the imaginative work of the split image. Without making any direct reference to pesticide residues on foods, it makes a powerful claim about the effects of DDT on the health of

consumers, highlighting the vulnerability of pregnant women and children. By appealing to concerns about consumer safety—particularly the risks lingering pesticide residues posed to children and the unborn—“the UFW made farmworker illnesses something more than self-referential” (Nash 164–165). Linking consumers to workers through shared risk allowed farmworker pesticide exposure to function as a metonym for threats to consumer health.¹⁴

This strategy was implemented in part through the use of personal testimony in the boycott campaign. Such testimony would appear in leaflets “with a skull and crossbones, entitled ‘Choice Tidbits’—meaning stories of people who suffered from pesticide poisonings” (Pulido 107). Organizers would distribute these and other materials outside targeted supermarkets in an attempt to sow both sympathy and fear that would ultimately overpower growers’ resistance. Like the leaflet shown in Pulido’s book, stories about workers’ pesticide injuries circulated in supermarket parking lots were part of a larger strategy linking worker and consumer health that encouraged shoppers to see *themselves* as at risk.

We can see the coordination of “choice tidbit” and consumer safety strategies in its fullest effect in Cesar Chavez’ famous “Wrath of Grapes” speech, delivered on multiple occasions in the second half of 1986, during a renewed period of boycott.¹⁵ Chavez reiterates the links between farmworkers and consumers that had helped the first boycott to succeed, while maintaining focus on workers as bearing the brunt of the risks of pesticide exposures. Producers and consumers are “one family,” he claims, but “we” farmworkers are “closest” to pesticides and “were the first to recognize the serious health hazards of agriculture pesticides to both consumers and ourselves” (193).¹⁶ After explicitly warning consumers that pesticides affect bodies differently and “what might be safe statistically for the average healthy forty-year-old male might irreparably harm an elderly consumer, a child, or the baby of a pregnant mother” (194),

the speech launches into a series of brief narratives. These cases represent countless stories of pesticide injury, argues Chavez, stories he “personally learn[s] of daily”:

How can I explain these chemicals to three-year-old Amalia Larios, who will never walk, born with a spinal defect due to pesticide exposure of her mother.

What statistics are important to Adrian Espinoza, seven years old and dying of cancer with eight other children, whose only source of water was polluted with pesticides.

What headlines can justify the loss of irrigator Manuel Anaya’s right hand, amputated due to recurrent infection from powerful herbicides added to the water he worked with in the fields. (195–196)

These anecdotes represent a family—pregnant mother, child, and laboring father—into which the audience has already been interpolated in a move Chavez then repeats: “Now is the time for all of us to stand as a family” (196). If consumers must stand with workers against pesticides, it is because they may *fall* to pesticides like Amalia Larios, Adrian Espinoza, and Manuel Anaya.

Chavez’s use of these brief stories recalls a form of life narrative known as *testimonio*. *Testimonio* is an autobiographical form of witnessing originating in Latin America, in which the “I” that speaks does so not only on behalf of the historical author but also for an oppressed collectivity.¹⁷ In so doing, it affirms “the individual self in a collective mode” (Beverly, “Margin at the Center” 97). *Testimonio* often appears as a single first-person narrative that represents the stories of multiple subjects. The form is characterized in part through a multi-layered process of witnessing; testimonial texts exist in the “delicate realm of collaboration” between witnesses, transcribers, translators, editors, and narrators (Kaplan 210). “Wrath of Grapes” stands as a kind of *testimonio* in which Chavez bears witness to a collective farmworkers’ life narrative marked by debilitating exposure to agricultural chemicals. If, as John Beverly argues, *testimonio* has the potential to create intimacy or “complicity” between the narrator and the audience as witnesses, furthering human rights agendas (*Against Literature* 77–78),¹⁸ then the speech demonstrates

aptly how personal testimony works in tandem with the UFW's strategy of appealing to consumers' concern for personal safety to further the political agenda of the boycott.

In its anti-pesticide politics and its strategies, the UFW grape boycott is an important precursor to today's alternative food movement. Scholars like Guthman and Harrison have shown how declining union membership, changes in border policy, the regulation of the "organic" label at the state and federal level, and the rise of neoliberal trade policies have precipitated significant changes in alternative food activism since the 1980s. One of the goals of this chapter is to explore how the deployment of personal testimony reflects alternative food's shift not merely toward market mechanisms but toward ideologies of flexible consumer-citizenship. I address these issues in the next section, showing how the mainstream alternative food movement employs the same combination of consumer safety rhetoric and personal testimony that helped the UFW secure victory in the 1965-1971 anti-pesticide campaign. In this contemporary manifestation, however, farmworkers' bodies and rights are overshadowed by (if not entirely absented to) a discourse of cultural trauma in which consumers, rather than workers, are imagined to be put at risk by industrial food production.

Alternative Gastrography

Twenty years after Chavez delivered his "Wrath of Grapes" speech, and forty years after the start of the first grape boycott, the politics of industrial food production were brought once again under intense public scrutiny by a social movement that will perhaps always be thought synonymous with the name of its most visible figure. Michael Pollan's *The Omnivore's Dilemma: A Natural History of Four Meals* (2006) is a paradigmatic example of the literature of

the new alternative food movement, its author the most widely known evangelist of local, seasonal, sustainable, organic eating.

The book's "natural history" is delivered in three parts, each of which attempts to follow one of "the three principal food chains that sustain us today: the industrial, the organic, and the hunter-gatherer" (*Omnivore* 7).¹⁹ In each part, the narrator wields "the long lenses of ecology and anthropology, as well as the shorter, more intimate lens of personal experience" to describe the ecological and political ramifications of a food chain (6). He visits the sites of industrial, organic, and local food production, introducing a cast of colorful characters and finally consuming a meal produced through each food chain, which he evaluates for its aesthetic and moral pleasures. Pollan's fourth book, *The Omnivore's Dilemma* helped catapult alternative food politics into the mainstream and secured its author a place at the forefront of the movement.

While Barry Estabrook's renown may not rise to the level of Pollan's, he has earned his foodie chops as a former contributing editor at *Gourmet* and current advisory board member at *Gastronomica*. *Tomatoland: How Industrial Agriculture Destroyed Our Most Alluring Fruit* (2011) made the *New York Times* bestseller list, and the *Gourmet* article on slavery in the tomato industry that preceded the book garnered a James Beard award in 2010. *Tomatoland* is a journalistic exposé of industrial tomato farming, with a specific focus on the slicing tomato industry in southern Florida. Largely narrated in the first person, the book is framed by an explicitly autobiographical introduction and epilogue, which structure an overarching narrative of the protagonist Estabrook embarking "on the tomato trail" in search of "a great tomato" (ix, 193). The first part of the book explores the origins of the Florida slicing tomato industry and chronicles the fruit's decline into a watery, tasteless, and nutritionally poorer version of "the tomatoes available to any housewife during the Kennedy administration" (xii). The middle

chapters reveal widespread industry abuses: the prodigious use of toxic chemicals, dismal wages, and, most disturbing, complicity in modern-day slavery. Toward the end of the book, Estabrook introduces readers to individuals and institutions that are “building a better tomato” (153), including a grassroots labor organization, charter schools, and an artisanal tomato farmer.

The Omnivore’s Dilemma and *Tomatoland* are each many things, among them life narrative. The meteoric rise of alternative food culture in the early years of the twenty-first century has overlapped with the memoir boom,²⁰ and life narrative has helped to propel foodie culture, including the alternative food movement, into the public consciousness. It is with this understanding that I approach Michael Pollan and Barry Estabrook as life writers. One way to read these narratives is as a kind of “shtik lit.” While this type of life writing may at times rise only to the level of attention-grabbing stunt, G. Thomas Couser locates shtik between two respected autobiographical traditions: immersion journalism and the Thoreauvian “account of a deliberate, temporary deviation from normal life” (161-3). One certainly gets the sense that Pollan would be pleased to think of his experiments with self-conscious, local eating at the end of *The Omnivore’s Dilemma* as Walden-esque. Beyond “mere” shtik, *The Omnivore’s Dilemma* and *Tomatoland* offer personal journeys, narratives of discovery in which their narrators pursue a path of foodie enlightenment. In this way, they resonate with the conventions of the conversion narrative: both narrators wade into the dark corners of the industrial food systems in which they have long participated and emerge on the other side having experienced a “conversion to new beliefs and worldviews,” with a new sense of “communal identity” centered on more ethical and more pleasurable eating (Smith and Watson, *Reading* 91).

Reading these narratives as journeys of spiritual awakening is commensurate with what Guthman recognizes as a “missionary impulse” within the mainstream alternative food

movement. “Seeing their food choices as signs of heightened ethicality,” alternative food advocates like Pollan and Estabrook “see social change as making people become like them” (*Weighing In* 141). If Pollan “uses his own personal experience to write about a broader ‘us’ driving down the road and stuffing a McDonald’s Happy Meal into our collective face,” he also uses his experience to convert readers to the new alternative food orthodoxy and encourage them to “spread the gospel” (ibid. 6). Insofar as texts like these offer a conversation narrative, their missionary impulse cannot be separated from the autobiographical one. Having experienced a gastronomical awakening, the narrators offer their own life stories as part of a model for better eating.

This is most obvious in *The Omnivore’s Dilemma*, each part of whose narrative concludes with an archetypical meal consumed by Pollan with his family or friends, exemplifying the ethical and aesthetic pitfalls or pleasures of each food chain. The book culminates at Pollan’s moral and gustatory zenith: the “Perfect Meal,” the “Omnivore’s Thanksgiving,” a meal foraged and prepared entirely by the narrator and enjoyed with good wine, good company, and good conversation. Here Pollan glides easily between personal experience and collective pronouns, interpolating the reader into the Perfect Meal and its moral calculus. “Perhaps the perfect meal is one that’s been fully paid for,” explains the narrator. “[A] meal that is eaten in full consciousness of what it took to make it is worth preparing every now and again, if only as a way to remind *us* of the true costs of the things *we* take for granted” (409-410, emphasis mine). In this, the book’s final scene, Pollan makes a dual move that characterizes *The Omnivore’s Dilemma* and its politics: he conflates eating pleasurably with eating ethically and collapses the distance between narrator and audience.

The ethical stakes of *Tomatoland* are clearer: the Florida slicing tomato industry is made possible through slave labor and dangerous “bad actor” pesticides (Estabrook also makes aesthetic claims about tasteless supermarket tomatoes that closely mirror Pollan’s concerns. I will take up the issue of taste directly later in this chapter).²¹ Estabrook does not merely describe the dire economic, environmental, and culinary costs of this industry from a distance, with the reader as a witness-twice-removed.²² Instead, he performs the role of eyewitness, of participant-observer. The main body of *Tomatoland* is situated within an autobiographical frame that owes to a shared convention of immersion journalism or the adventure narrative: the autobiographical subject takes temporary leave of his everyday life to seek rarified knowledge in a dangerous, riskier world.

In his introduction, called “On the Tomato Trail,” Estabrook deploys a move similar to Pollan’s, attempting to bridge the distance between narrator and audience. “After months of crisscrossing Florida,” narrates Estabrook, “I began to see that the Florida tomato industry constitutes a parallel world unto itself, a place where many of the assumptions I had taken for granted about living in the United States are turned on their heads” (xvi). The rest of the book represents a tour through this parallel world, “a world *we*’ve all made, and one *we* can fix” (ibid. xvii, emphasis mine). The final sentence of the introduction serves as an invitation to the reader to join the narrator on his journey through this world that “we” have wrought. With the words, “Welcome to Tomatoland” (ibid. xvii), Estabrook brings the reader into the narrative, hailing us as fellow travelers in his quest for an ethically and aesthetically better tomato. This is a move to implicate the audience beyond the page, but it also serves to separate readers from the farmworkers who inhabit Tomatoland. We know that, like Estabrook, we are on an adventure tour, a “temporary deviation” from our normal lives.

These autobiographical narratives of alternative food—what I propose to call, following Rosalía Baena, “alternative gastrogeographies”—use the autobiographical form to different effect than the personal testimony leveraged by the UFW in its grape boycott, discussed earlier. The *testimonio* form wielded by Chavez “bears witness to collective suffering, politicized struggle, and communal survival” to shed light on the abuse of marginalized farmworkers (Smith and Watson, *Reading* 91). Pollan and Estabrook, as I will show, ultimately locate both suffering and politics largely with consumers. This marks a profound shift from earlier anti-agricultural pesticide activism and characterizes mainstream alternative food politics in the twenty-first century. This shift toward consumers is facilitated by the alternative food movement’s investment in autobiographical forms. Through personal narrative, Pollan and Estabrook generate a sense of immediacy about consumer health risks and provide prescriptive solutions for industrial food’s epidemiological, moral, and aesthetic shortcomings. Form and politics work together to advance a narrative of cultural trauma in which consumers, constituted as a body politic, are the primary subjects of traumatic injury.

The Omnivore’s Dilemma

Industrial farmwork is arguably one of the most physically taxing and least economically rewarding jobs in the United States. Many farm jobs are stoop labor, in which workers must crouch for hours at a time to pick low-growing crops by hand, causing such injuries as slipped vertebral discs, tendonitis, and chronic pain. Farmworkers may be required by growers to live on site in crowded accommodations that are poorly ventilated in the summer and improperly insulated for the colder months, or they may live an hour or more from the fields, to which they may be transported only by a subcontracted “crew boss” who hires them on a per diem basis.

Once in the fields, they may be exposed to pesticides that are already dangerous when used correctly. Too often, they are not. There are widespread reports of growers sending workers into fields too soon after spraying;²³ failing to provide workers with required protective gear; spraying pesticides directly on workers; and providing only English language pesticide training to workers who speak or read only Spanish, Triqui, or other Mixtec languages.²⁴ According to the Pesticide Action Network, known risks of exposure to common agro-industrial chemicals include dizziness, headache, nausea, trouble breathing, brain and nervous system damage, endocrine disruption, reproductive effects, cancer, and death. For all of this, most workers are paid on a piecework basis (by the pound, box, or bucket) and live well below the poverty line.²⁵ These health and economic concerns are exacerbated for immigrants, especially those whose immigration is unauthorized, who have less access to social and legal services they might leverage to improve their working and living conditions (Thomas 209). In a 2005 report on the National Agricultural Workers Survey, the US Department of Labor estimated that nearly 80% of farmworkers are immigrants, with more than half of those undocumented (3–6).

Given these widely-recognized and decidedly unappetizing facts about the conditions of industrial food production, it is notable that *The Omnivore's Dilemma* directs no attention to industrial farmworkers, with the exception of a single passing reference to pickers on an “industrial organic” farm whom Pollan identifies as Mexican (*Omnivore* 166). Where *The Omnivore's Dilemma* does attend to the human conditions of agricultural production, the narrative focuses on relationships between producers and consumers. As the narrator follows different food chains, he attempts to trace them back to their human face, to connect personally with the man (there are virtually no women in Pollan's world of agricultural production) responsible for growing the meal on his plate. For example, the narrator spends an afternoon

planting traditionally-grown corn with a likeable, if ornery, Iowa corn farmer. However, the combination of corn's fungibility and its incredible chemically-supported yields make it impossible for him to trace the corn used to make the ingredients in his son's Happy Meal back to any specific farm. According to Pollan, this creates a lack of accountability that makes industrially-produced food bad for consumers. That is, the unhealthfulness of processed foods containing corn products (like fast-food burgers, fries, and sodas) is attributed in part to unwholesome social-economic organization that separates farmers (in this case, read: farm *owners*) from eaters.

In contrast, the narrator promotes an agrarian ideal of small, family-owned farms supported directly by local consumers through farmers' markets, community-supported agriculture ventures (CSAs), and farm-to-table dining. In *The Omnivore's Dilemma*, this ideal is represented by Polyface Farm and its owner, Joel Salatin. In his investigation of organic food chains, Pollan visits the Virginia farm to labor and live for a week with the Salatin family. Part of what appeals to Pollan—where he locates Polyface's moral and gastronomical goodness—is how “remarkably short” a food chain it produces. “I had been able to follow it for most of its length without leaving the Salatins' property,” he explains approvingly (239). The narrator clearly sees a parallel between the ecological health of the farm's closed-circle ecology (cows eat grass, manure nourishes grass) and the moral health of its relatively closed familial economy, in which Joel Salatin runs the farm with the help of his wife and their grown children, two interns, and some neighbors to help out on slaughtering days.

All of this may indeed allow Polyface to run the kind of ecologically conscious and community-based business that Pollan admires. Yet, in idealizing Polyface as a model of new agrarian success, Pollan neglects the complicated realities of that tradition. As Julie Guthman

points out, “deeming the ‘small-scale family farm’ a proxy for social justice” erases the gender and racial dynamics that historically structured small-farm economies, as well as the history of racial exclusion in US land policy (*Agrarian* 174). We occasionally catch a glimpse of this history under the surface of *The Omnivore’s Dilemma*, as when Joel Salatin compares himself and his customers to “the Indians—we just want to opt out. That’s all the Indians ever wanted—to keep their teepees, to give their kids herbs instead of patent medicines and leeches” (132). Here, Salatin—and by extension Pollan, who reproduces and apparently endorses this view without comment—evinces a profound racial ignorance that characterizes the new agrarian ideal espoused by writers like Wendell Berry, whom Pollan cites repeatedly and with admiration.

Moreover, most family-owned farms today, including those that farm organically, hire laborers from outside the family, and, “once hired labor is admitted into the analysis, there is no evidence to suggest that working conditions and remuneration on small ‘family’ farms are better than on large ‘corporate’ ones” (Guthman, *Agrarian* 174; see also Holmes). In California, which is home to the largest percentage of organic farms in the United States, the majority of wage laborers on small-scale farms are Mexican migrants or US-born Mexican-Americans, just as on large-scale industrial farms (Guthman, *Agrarian* 176). All of this is to say that the interrelated issues of racial, migration, ecological, and labor justice are central to both industrial and organic, large- and small-scale farming. But Pollan chooses not to open this line of questioning at all, completely ignoring the role of hired labor in any of the food chains he pursues.

Instead, Pollan focuses most of his attention on consumers as an index for the physiological, ecological and ethical healthfulness of a food system. Even as he devotes most of his pages to describing food production, the narrator always turns back to consumers, as when he implicitly endorses Joel Salatin’s view that “the only meaningful guarantee of integrity is when

buyers and sellers can look one another in the eye” (240). Ultimately, *The Omnivore’s Dilemma* is at its heart a diagnosis of and corrective prescription for “Our National Eating Disorder,” which is the title of the book’s introduction. Industrial food is framed from the outset not as a primarily economic or ecological problem but as a form of pathological *consumption*. The “omnivore’s dilemma”—the problem of what to eat when your species has not evolved to require a specialized diet—understands “disordered” eating as a problem stemming from a surfeit of (poor) dietary choices. In some respects, what the narrator offers is an addiction narrative, in which he serves as a therapist or witness attempting to “convert” a nation degraded by out-of-control consumption.

Like the addiction narrative, Pollan’s alternative gastrography tells a story of personal moral uplift; *The Omnivore’s Dilemma* mobilizes the personal responsibility rhetoric of “healthism” to bolster his case for a new food culture. Healthism names “the preoccupation with personal health as a primary...focus for the definition and achievement of well-being; a goal which is to be attained primarily through the modification of life styles” (Crawford 368). It is a form of medicalization that disciplines bodies through moral imperatives. Discourses of healthism are at work whenever “appealing to health allows for a set of moral assumptions that are allowed to fly stealthily under the radar” (Metzl 2). When the narrator laments what he sees as a US food culture that is “apt to confuse protein bars and food supplements with meals or breakfast cereals with medicines” and to “eat a fifth of its meals in cars or feed fully a third of its children at a fast-food outlet every day,” and when he links these apparent failings to Americans’ fatness (3), he taps into the core ideology of healthism: that health is a personal, moral imperative.²⁶ “Healthism insists that the maintenance of good health is the responsibility of the individual,” as Deborah Lupton explains, “or the idea of one’s health as an enterprise” (70).

Pollan's brand of healthism holds individuals accountable for the physiological and ethical goodness of the foods they eat, while at the same time denouncing the corporate and governmental interests that make "bad" foods widely available and economically accessible to most consumers. Pollan's personal journey of gastronomic awakening serves as a model for readers in transcending these deep contradictions and achieving the heightened ethicality that healthism demands through "better" personal choices.

Most important for our purposes here, both Pollan and Estabrook borrow from earlier UFW strategies to position agricultural pesticide exposure in particular as a risk to consumers. In *The Omnivore's Dilemma*, pesticide risks are incorporated into the ideology of personal responsibility that characterizes healthism. That is, pesticide exposure is in the first place imagined as a problem of consumption rather than production and in the second place as a problem best served by individual, not structural, solutions. Pollan's approach to pesticide exposure plays out in a complex passage in which he weighs the health benefits of the organic chicken dinner he has just served his young son. "I happen to believe that the organic dinner I served my family is healthier than a meal of the same foods conventionally produced, but I'd be hard-pressed to prove it scientifically," he muses.

Remarkably little research has been done to assess the effects of regular exposure to the levels of organophosphate pesticide or growth hormone that the government deems 'tolerable' in our foods...[but] minimizing a child's exposure to these chemicals seems like a prudent idea...So I can wait for that science to be done, or for our government to ban atrazine (as European governments have done), or I can act now on the presumption that food from which this chemical is absent is better for my son's health than food that contains it. (177-178)

The narrator's calculations demonstrate perfectly the characteristic tensions of mainstream alternative food discourse, between the structural analysis inherent to embodied health movements and the solipsistic individualism of healthist ideology. While he criticizes stagnating

research agendas and government inaction, Pollan suggests that the health benefits of organic eating are a matter of personal belief and concludes that protecting children from pesticide exposure is ultimately a matter of personal choice. Yet that choice is not a neutral one. If serving one's child organic foods is "prudent," parents who buy conventionally-grown foods fail to do what is "better" for their families. Moreover, this failure is implicitly attributed to laziness: such parents have chosen to "wait" instead of "act now." It is hard not to read such subtle aspersions as class-coded, especially when read alongside the narrator's expressed disdain for both fast-food and fatness (which he uncritically links to one another).

The related themes of personal responsibility, individualism, and consumer politics are facilitated by Pollan's autobiographical narration. All life writing has the potential to serve as a model for audiences, and this is especially true of addiction or conversion narratives. As long as an audience has faith in the authenticity of the autobiographical performance, the protagonist's journey is represented as achievable and, often, as desirable. In performing autobiographically the role of investigative journalist, the narrator of *The Omnivore's Dilemma* generates a powerful set of truth-effects. As he reports on his research into the natural history, economic policy, and biology behind a food system, the narrator appears to verify at once the truthfulness of his autobiographical testimony and the fact of hidden truths beyond that which can be accounted for in the scene of witnessing—at the table or on the farm, for example. In the process of revealing more than what he can claim to have witnessed, the narrator leads us to believe that the whole truth of industrial food has been exposed; the audience's trust in the authenticity of his autobiographical performance reinforces our trust in his expertise as a journalist.

This makes the autobiographical exposé form particularly effective as a vehicle for advancing consumer politics, because it seems to represent the systemic forces that shape

consumption practices while also offering an authentic protagonist who contends with these forces through skillful navigation of the system. The narrator depicts a set of problems in the food system that he reveals to be structural in nature, yet he seems to successfully mitigate those problems through apparently simple individual action. This kind of message may be comforting to audiences who can imagine themselves driving to a nearby farm to pick up their family's meat and eggs or baking bread with wild sourdough yeast they forage themselves from the Bay Area air. The narrator does not address whether or how consumers without cars or Marin County addresses can achieve this same kind of moral and gastronomic self-sufficiency. As a politics, then, this vision for a path to a sustainable food future simply cannot capture the economic and ethical complexity of modern food systems.

Tomatoland

This same series of authenticating moves is at work in Estabrook's narrative. Yet, in sharp contrast to *The Omnivore's Dilemma*, *Tomatoland's* narrator observes up close the often brutal physical and economic conditions of farm labor and clearly traces these problems to corporate negligence, federal immigration policies, and poor government oversight. The book is best known for its chilling portrait of modern slavery in Florida, but a chapter on pesticide abuse, titled "Chemical Warfare," is equally powerful. In it, Estabrook visits Tower Cabins, a labor camp in Immokalee, Florida, where three tomato pickers employed by Ag-Mart Produce gave birth to children with significant congenital anomalies within six weeks of one another in the late 2000s. Through conversations with one of the mothers, Francisca Herrera, and the lawyer who helped her family successfully sue Ag-Mart, the narrator offers a startling portrait of the tomato industry: fields sprayed with dozens of toxic pesticides; workers, including pregnant women,

becoming coated in pesticide dust after a day in the fields; field bosses ordering workers to spray pesticides directly onto other pickers; corporate denial that pesticides pose any risks to human health whatsoever; and ineffectual regulatory agencies with conflicting mandates to promote industry while investigating its abuses. In a court deposition excerpted in *Tomatoland*, Herrera's husband testified that he and his wife worked without protective gear like gloves, which they could not afford. They would also be directly sprayed with pesticides two or three times a week during the time that she was pregnant with their son, Carlitos, who was born with tetra-amelia syndrome (Estabrook 58).²⁷ Ag-Mart eventually settled out of court, though they admitted no responsibility for Carlitos's injuries.

By engaging personal narrative—through the narrator's own journey of coming to knowledge about the tomato industry, but also by interviewing farmworkers and quoting extensively from legal depositions—Estabrook positions the reader as a secondary witness to the slow violence of pesticides. If a primary witness experiences the traumatic event first-hand, the scene of testimony may produce a secondary witness, one who becomes through the act of listening a witness to both the trauma and the process of witnessing itself. By witnessing *process*, the secondary witness becomes “a witness to himself,” recognizing himself recognizing the testimony of another (Laub, “Bearing Witness” 58; see also Laub, “Truth and Testimony”; Schaffer and Smith). The primary act of witnessing for a listening other, says Kelly Oliver, constitutes more than a claim for recognition. As in juridical contexts, to witness implies a set of demands, including demands for retribution, compassion, and redress, which reach beyond mere recognition and suggest the ways in which all subjectivity is constituted through the intersubjective process of witnessing (7–8). In engaging *Tomatoland*, the reader witnesses a multi-layered testimonial process that includes and exceeds formal sites of witnessing such as the

law. In serving as a medium for this secondary level of witnessing, Estabrook also turns the reader into a witness to *his* own process of witnessing. We observe him “identifying with...and taking responsibility for” his own role in receiving the testimony of farmworkers like Herrera (Schaffer and Smith 109). Like Estabrook, the reader must come to terms with her own response-ability; she is charged with the task of reorienting herself in a historical and ethical terrain that has shifted with the telling of stories of farmworker abuse.

Estabrook works to situate the reader in this new toxic terrain by strategically linking farmworker pesticide injuries to consumer health risks, creating a different site of identification for his audience. For the UFW, this tactic was part of an attempt to bring the message of worker pesticide abuse to a larger constituency whose combined buying power could influence retailers, and ultimately growers, to secure a new contract for farmworkers. When Chavez declared that workers and consumers were “one family,” he was imaginatively building a coalition in the name of farmworkers. Estabrook attempts a similar move, positioning consumers and workers as the “two groups [that] come out on the short end of the industrial tomato bargain” (34).

Tomatoland sheds a harsh light indeed on the industry’s abuse of its workers, yet at times farmworkers are imagined as little more than a vehicle for conveying the risks of industrial food. In a particularly telling passage lamenting the role of tomatoes in outbreaks of food-borne illnesses, the narrator claims that “[b]irds, reptiles, and infected fieldworkers are all vectors for salmonella” (33). Here, Estabrook engages in a medicalized nativism that dehumanizes the mostly Mexican migrant labor force he purports in other passages to champion, turning workers, like animals, into agents of disease representing a threat to consumer health.²⁸

This is a particularly disturbing trend in relation to the bodies of pregnant women and children. Estabrook focuses almost all of his attention to farmworker pesticide exposure on the

case of baby Carlitos, his mother Francesca Herrera, and the other Tower Cabins babies who were injured by pesticides during fetal development. Baby Jorge was born, the narrator explains, with “one ear, no nose, a cleft palate, one kidney, no anus, and no visible sexual organs. A couple of hours later, following a detailed examination, the doctors determined that Jorge was in fact a girl. Her parents renamed her Violeta. Her birth defects were so severe that she survived for only three days” (36). *Tomatoland* contains more than 30 mentions of birth “defects” or “deformities,” and another dozen references to chemicals causing reproductive problems. Agro-industrial pesticides can have a significant impact on fetal and infant development, as the stories of Carlitos and Violeta demonstrate. But it is also true that toxic discourse has long relied on a troubling tradition of grotesque representation as part of its political project.

The narrative’s representation of these children as victims of pesticide exposure poses two related ethical issues. The first is the subsuming of disability and reproductive difference together under the category of “defect.” The repetitive listing of Jorge’s absent body parts, culminating in the revelation of his actual identity as Violeta, is so clearly designed to shock and overwhelm the reader. Following toxic discourse’s tradition of gothification, Violeta becomes an embodiment of toxic degradation. Her impairment, her sexual illegibility, and her death have value insofar as they warn against toxic proliferation. Although the gothification of Carlitos’s and Violeta’s conditions are meant to indict Ag-Mart, this process reinforces existing paradigms for representing disability as either repulsive or piteous, paradigms in which environmentalism is heavily implicated.

Second, while chapters on farmworker abuse and activism are physically at the center of the book, *Tomatoland* ultimately turns toward “matters of taste,” as a later chapter is called. In these final chapters, Estabrook attempts to link the physical and economic toll industrial

agriculture takes on its workers to consumers' desire for better-tasting tomatoes. Estabrook's understanding of the relationship between corporate producers, consumers, and workers pits growers against the consumers and workers harmed by the industrial tomato system. "The system may work well for big tomato growers and their corporate customers," he writes. But,

Consumers occasionally get a tomato that makes them ill. And they are almost always seduced into buying by the beautiful red exteriors and then—in the produce aisle's version of bait-and-switch—they are rewarded with a mealy mouthful stripped of nutrients and devoid of flavor. 'A total gastronomic loss,' wrote James Beard in his book *Beard on Food*, published in 1974 but still true today.

The biggest losers in Tomatoland's hell-bent race to produce cheap commodity fruits are the men and women whose labor produces the food we eat. Day in and day out, they enter those poisoned fields and expose themselves to a witch's brew of toxic chemicals... Their horror stories turned my stomach—a total gastronomic loss in the fullest sense. (34)

In this passage, Estabrook establishes a hierarchy in which growers, who benefit from the system, occupy the top rung, and workers come out at the bottom, with consumers occupying a middle space. In one sense, this hierarchy is reflected in the structure of these paragraphs, which address growers, then consumers, then finally workers. But Estabrook also uses parallelism to ally consumers with workers, and it is *taste* that links consumer safety and mealy tomatoes to worker pesticide exposure as "bads" of the tomato industry. If the "axial principle of...risk society is the distribution of 'bads' or 'dangers'" (Lash and Wynne 3), one critique that has been levied at the world risk paradigm is that it cannot adequately account for the uneven distribution of these bads. Even while Estabrook clearly recognizes that the harms to consumers and workers are on different orders of magnitude, the persistent use of taste—with its intertwined meanings of both sensation and judgment—recalls alternative food's (highly racialized) class troubles. If the representation of Carlitos and Violeta as defect-ive threatens to turn real children into mere signifiers of a dysfunctional economic system, the focus on taste empties those signifiers of their environmental and economic import.

Cultural Trauma and Testimonial Justice

I follow other food systems scholars who have critiqued the alternative food movement for the narrowness of its individualistic politics and privileging of consumption practices.²⁹ This project's approach to alternative food at the intersection of life writing and toxic discourse points toward trauma as a productive rubric for thinking about the movement's implicit biases, as I suggest that shifting discourses of traumatic embodiment have been crucial to shaping poisoned subjectivity over the past thirty-five years. As alternative food literature turns industrial agriculture's abuses—not only worker pesticide exposure but also agribusiness involvement in oppressive border policies, animal abuse, and environmental degradation—into threats to consumers' reproductivity, waistlines, wallets, and cuisine, it generates a traumatic *mood* in which violence plays out not only on the bodies and psyches of those immediately affected but reverberates throughout a culture.

Kirby Farrell theorizes moods of cultural trauma in his study of the 1990s as a “post-traumatic culture.” For Farrell, trauma functions as a “trope,” a “strategic fiction” that “reflects a disturbance in the ground of collective experience: a shock to people's values, trust, and sense of purpose” (2–3). In the period Farrell describes, the traumatic mood “register[ed] the dissonance—the shock—of meeting long-denied realities that threaten our individual and collective self-esteem” (15). In this way, Farrell's theorization of cultural trauma clearly resonates with toxic discourse, which is structured by repeated, violent epiphanies of toxic proliferation that threatens human health and environmental integrity. Buell describes this “shock of awakened perception” as a shift from a simple pastoral imaginary toward a complex pastoral, which recognizes the apparently pristine natural world as infused with technology (36).³⁰ This initial shock gives way to a generalized anxiety as subjects perceive that they inhabit a “world

without refuge” in which toxic harms may seem to strike indiscriminately. Ulrich Beck may well have written that, in the world risk society, *toxins* are democratic.³¹

In the twenty-first century, the alternative food movement engages trauma’s tropes as it rehearses the motifs of toxic discourse to awaken consumers to the potentially destructive interventions of technology and corporate capitalism under industrial agriculture. *The Omnivore’s Dilemma*, all the way down to its title, suggests a collective experience of traumatic eating. The narrator diagnoses cultural trauma by identifying patterns of consumption that he deems pathological, without attention to whether and how actual people experience food production as damaging to their bodies or minds. Under the regime of modern industrial agriculture, he suggests, eating itself is a dilemma, fraught with anxiety. He diagnoses Americans with a “national eating disorder” defined by eating habits that are unstable, unrooted, confused, and susceptible to pendulum swings (2-3). “The more anxious we are about eating,” he writes, “the more vulnerable we are to the seductions of the marketer and the expert’s advice. Food marketing in particular thrives on dietary instability and so tends to exacerbate it” (301). As a form of toxic discourse, alternative food literature both describes and produces this sense of anxiety; as Farrell suggests, trauma functions culturally as *both strategy and a mood*.

Of course, the alternative food movement offers a prescription in answer to its diagnosis: ameliorative forms of consumption that can only be achieved by working through “traumas of pastoral disruption” (L. Buell 37). As the narrator of *The Omnivore’s Dilemma* explains of the national eating disorder: “Many people today seem perfectly content eating at the end of an industrial food chain, without a thought in the world; this book is probably not for them. . . [T]his is a book about the pleasures of eating, the kinds of pleasure that are only deepened by knowing” (11). If trauma is diffuse, prompted by and spread across a national eating culture, pleasure and

healing are available to those who know how to consume the right foods (and, perhaps, the right books to teach them how). By eating pleasurably, which is to say organically, readers will find their anxieties soothed as they reintegrate their new gastronomical knowledge through new patterns of consumption. Alternative food is imagined as an enclave where the knowing can seek refuge from a toxic food landscape. In *The Omnivore's Dilemma*, the narrator's performance of increasingly ethical forms of consumption (industrial, industrial organic, beyond organic, local) serves as a model that readers can and should follow to achieve the same alternative food conversion as Pollan and enjoy its attendant pleasures.

Tomatoland also connects pleasure and knowing as ways of registering and moving beyond trauma. Linking bad taste with bad ethics, the narrator condemns industrial farming as “a total gastronomic loss” (34). This is a move that makes slavery, pesticide exposure, and other abuses problems of eating, as well as of labor, regulation, economics, and ecology. Alternative gastrography-as-conversion narrative provides a model for more ethical consumption practices, allowing readers to imagine themselves as one of the benevolent individuals profiled in the book—the investigative reporter, the lawyer working pro bono, the day care provider, or the organic tomato farmer—whenever they shop and eat. But readers can also imagine themselves as bearing a limited similarity to the laborers whose health is threatened by pesticides. When the narrator recites a litany of pesticide facts, listing all thirty-five chemicals whose residues were found on conventionally-grown tomatoes in US supermarkets, he knows that readers won't be comforted by the fact that these residues are considered within the range of acceptable risk. When audiences read that “at high enough concentrations... fourteen are endocrine disruptors, and three cause reproductive problems and birth defects” (28), they are meant to imaginatively

identify with Francisca Herrera and baby Carlitos, born without arms or legs due to pesticide exposure.

In *Tomatoland*, trauma travels like pesticide residue from sites of production to adhere to the bodies of consumers. Trauma becomes “sticky,” to use Sara Ahmed’s language, moving across bodies and objects as they come into contact with one another. While “tomatoland” constitutes “a parallel world unto itself” that stands apart from “any other American jurisdiction,” tomatoes serve as a point of contact (xiv-xvi). While the trope of the parallel world dissociates consumers from industry abuses and separates them from producers, the fruit itself crosses the porous border between tomatoland and middle America. The market circulation of tomatoes brings both pesticides and toxic anxieties into consumers’ homes; not only residues but also testimonies are “sticky.” As these testimonies travel, they seem to demonstrate that pesticides pose a threat to reproduction writ large, with the demonstrated harm to workers’ babies signifying potential health risks to consumers.

The Omnivore’s Dilemma and *Tomatoland* suggest the ways that the alternative food movement, in directing its energies toward consumption practices sometimes alongside but often at the expense of a rigorous analysis of systems of production, engages in a discourse and contributes to a mood of cultural trauma. The specificity of the effects of pesticide exposure on farmworkers like Francisca Herrera feeds into a generalized traumatic mood marked by vague anxieties about consumers’ health, weight, and appetites. Writing about the Holocaust, Dominick LaCapra warns that “the indiscriminate generalization of the category of survivor and the overall conflation of history or culture with trauma... have the effect of obscuring crucial historical distinctions” (xi). While trauma’s aftereffects can reverberate throughout a culture, LaCapra distinguishes between empathy for and identification with the category of survivor, suggesting

the value of a narrower understanding of trauma grounded in historical specificity. For example, as I argued earlier, Michael Pollan ignores the racial exclusions embedded in US land and immigration policies that continue to shape race and class disparities between land owners and wage laborers on small farms today when he privileges relationships between producers and consumers as part of an agrarian ideal. When Barry Estabrook decries the abuses that industrial agriculture heaps on “the men and women whose labor produces the food we eat,” he gestures toward but never names the complex and interlocking ideologies of race, class, and citizenship that implicitly separate “those” who labor from “we” who consume (34).

Discourses of cultural trauma have important implications for testimonial justice in the alternative food movement. *The Omnivore’s Dilemma* virtually erases wage laborers in its depiction of industrial and organic agricultural production, turning production itself into a problem of consumption. While increasing the market demand for organically-grown foods likely reduces overall farmworker pesticide exposure, it is not clear that this sort of “ethical consumerism” does ultimately subvert the human, animal, and environmental abuses of industrial agriculture. And there is something deeply suspicious about a project that purports to follow a food chain back to its roots without more than a passing nod to the millions of people who literally tend those roots and harvest their produce.

Since the narrator of *The Omnivore’s Dilemma* himself frames his literary and gastronomic projects as problems of knowing, I suggest we consider the absence of farmworkers in Pollan’s agricultural imaginary as a specific epistemological harm: *pre-emptive* testimonial injustice. As we saw in chapter 2 with the testimonies of people experiencing multiple chemical sensitivity, prejudicial beliefs about subjects’ capacity to reason and to witness veraciously may cause hearers to reject the testimony of some social groups. But some social groups may not be

solicited for their testimony in the first place. Such “pre-emptive” testimonial injustice “takes place in silence” and exerts a powerful silencing force (Fricker 130). “The purely structural operations of identity power can control whose would-be contributions become public, and whose do not,” writes Fricker, such that “not being asked is one way in which powerless social groups might be deprived of opportunities to contribute their points of view to the pool of collective understanding” (130–131). Overlooking agriculture’s wage laborers in his analysis, Pollan’s narrator perpetuates a long-standing pattern of exclusion, in which the most economically and racially marginalized subjects are the least likely to be admitted to the public discourse that shapes social understandings of their labor.

Beyond the question of whose voices are being heard lies the issue of *how* and *for whom* testimony is mobilized. *Tomatoland* incorporates farmworkers’ testimony through interviews and excerpts of legal depositions, and perhaps their stories have incited some readers to consume differently, or lobby their representatives, or engage in more direct political action. But Estabrook also uses farmworker testimony about pesticide abuses to amplify risks to consumers’ health, implicitly positioning workers as “canaries in the coal mine,” harbingers of a broader public health crisis. This is a common strategy within anti-toxics embodied health movements, including the UFW’s anti-pesticide campaigns, as well as the DES and MCS movements discussed in chapters 1 and 2. But there stands a crucial difference in that Estabrook cannot claim the role of canary for himself, as Rhonda Zwillinger or Cesar Chavez might. This represents a fundamental inequality in the auto/biographical relationship between Estabrook and the farmworkers whose testimony he reproduces, making the narrative a site of vulnerability for those subjects. Issues of access to testimonial apparatuses, including mass-market life writing,

suggest a limit to empathic identification as a political strategy and the efficacy of life narrative as a political tool.

Whether auto/biographical vulnerability in *Tomatoland* rises to the level of injustice remains, I think, an open question. Justice in auto/biographical narratives is multi-dimensional and “has to do with whether the text represents its subject the way the subject would like to be represented, with whether that portrayal is in the subject’s best interests, with the control the subject has over it, and with the degree and kind of any harm or wrong done by misrepresentation” (Couser, *Vulnerable Subjects* 41–42). Moreover, there is the question of whomever else’s best interests may be served by the portrayal. While farmworkers are undoubtedly being poisoned in industrial agriculture’s fields, Pollan’s and Estabrook’s alternative gastrographies represent consumers as poisoned subjects under the regime of industrial agriculture. These texts test the limit conditions of autobiographical fair trade. Gillian Whitlock reminds us that critics “must hold things together—books on the shelf, production and consumption, addressee and addressor,” in order to ask how autobiographical productions impact their communities of origin (15). What does it mean to be at risk, and what does it mean to witness to it? Where and how do embodiment and testimony meet? Do the tropes of toxic discourse support testimonial justice?

The Logic of Alternatives

Scholars working in cultural geography, sociology, and economics have long taken a systemic view of the cultural and political meanings of food, asking questions about the relationship between practices of production and consumption. Literary critics, on the other hand, “have tended to treat both agriculture and eating in terms of the symbolic meanings they

convey about other cultural issues” (Carruth 165). Following recent shifts in literary food studies, I advocate a systems approach to food that can capture its complex function “not just as symbol but also as rhetoric and praxis” (ibid. 166). To this end, this chapter has approached the literature of alternative food movements as forms of toxic life narrative. As such “alternative gastrogeographies,” *The Omnivore’s Dilemma* and *Tomatoland* are representative of the aims and ideologies of the alternative food movement, which has gained significant public attention through such personal narratives. The life writing of the alternative food movement represents a coming-to-knowledge that industrial food is contaminated with material pesticides and what John Blair Gamber terms *cultural* toxins—forms of oppression that make a society literally unlivable for some subjects.

While I have been using the singular form “movement” throughout this chapter, the landscape of alternative food politics is heterogeneous. Conceptions of what constitutes toxic risk, who is vulnerable, and how to represent toxic vulnerability vary across the movement, as the narratives I have discussed here demonstrate. *The Omnivore’s Dilemma* enacts a near-total erasure of the human abuses of industrial agricultural production, emphasizing instead individual choices and relationships at the consumer end of the supply chain. While *Tomatoland* does, crucially, represent farmworkers who are directly subject to the slow violence of pesticide abuse, the narrative’s broader focus is on consumers, whom it also hails as potentially poisoned subjects and as political actors. Both narratives depict the consumption of local, organic foods as at once a moral, political, and an aesthetic good.

Some scholars concerned with issues of food and labor justice are troubled by this advocacy for an ethical consumerism coming from dominant voices within the alternative food movement. In focusing its attention on consumers’ needs and responsibilities, they suggest, the

movement has turned away from the individuals and communities most affected by pesticide exposure and other industry abuses. Food systems scholar Patricia Allen, whose book *Together at the Table* offers a generally positive assessment of the alternative food movement, laments the narrowing of movement goals such that, “at the level of implementation, stakeholder groups such as farmworkers may be excluded entirely...thereby limiting the claims and changes [advocates] attempt to make” (18). These limitations are represented in and shaped by public narratives of food activism that Jill Lindsey Harrison criticizes for supporting “the prescriptions of libertarian and communitarian notions of justice,” (*Pesticide Drift* 186). Libertarian and communitarian conceptions of justice individualize and localize food politics, respectively. Both represent a flattening out of structural critiques and state-based interventions in favor of market-driven solutions (ibid. 186). That is, alternative food politics have been subject to neoliberalization, such that movement critiques of traditional systems of food production are absorbed within and can actually be seen to prop up the dominant politico-economic paradigm.³² Specifically, the logic of alternatives undergirding the alternative food movement supports the neoliberal injunction to flexibility, masking and exacerbating existing inequalities within food systems.

The robust and growing organic food economy in the United States today is indebted to the countercultural experiments of the 1960s and 1970s. Early organics proponents during this period were influenced by social movements (anti-war, feminist, ethnic nationalist), the developing science of ecology, survivalism, mysticism, and drug culture to develop an oppositional food culture (Belasco 68). These “ecofreaks” defined themselves through their rejection of mainstream ideas about politics and pleasure, and they sought to develop alternative ways of producing and consuming food that would be at once pleasurable, ethical, and healthy (ibid. 43). This oppositional ideology led to experiments with organic gardening, cooperative

living and working arrangements, and farm-to-table dining in attempts to build an alternative food infrastructure. As Pollan explains, “the early organic movement sought to establish not just an alternative mode of production (the chemical-free farms), but an alternative system of distribution (the anticapitalist food co-ops), and even an alternative mode of consumption (the ‘countercuisine’)” (*Omnivore* 143). With strong undercurrents of anti-capitalist and anti-war sentiments, the word *organic* itself “clearly became understood as a critique” (Guthman, *Agrarian* 7). During this period of hippie rebellion, the organic movement believed that food could serve as a catalyst for broader social change. In its most expansive forms, an oppositional food culture was imagined as part of a larger critique of white supremacy, the subjugation of women, and the destruction of the earth.

What I am calling the logic of alternatives has been embedded in today’s alternative food movement from its roots in the organic food economy that began as part of the late 1960s counterculture. Under the influence of radical New Left politics, the early organic movement attempted to break away from the industrial food system and develop its own, independent infrastructure for producing and distributing what it saw as healthier, better-tasting foods. If organic food was to undermine the industrial food system, it would do so by providing an *alternative*, allowing producers and consumers to choose something different (Guthman, *Agrarian* 173). This is, at its core, a *market-driven solution*; today, proponents of alternative food exhibit a belief that consumer demand will drive producers toward agro-ecological principles and reshape the food system from the inside out.

To a certain extent this has been true. Like other forms of green consumerism, organic food has been readily absorbed by corporate capitalism. As demand for alternatively-produced food has increased, conglomerates like Mondelez (previously Kraft) and Kellogg have gotten into

the organic game,³³ creating what is sometimes called the “industrial organic” sector of the food economy. Industrial organic operations adhere to weakened USDA standards regulating the organic label but do not generally uphold traditional organic philosophies of sustainable land-use and labor practices. In turn, smaller-scale producers who wish to remain associated with core organic values have differentiated themselves with a new name, “beyond organic,” as well as higher prices. And so the alternatives proliferate. The logic of alternatives articulates with neoliberal economic ideologies, helping to produce a competitive market where consumers have an apparent freedom of choice.

Thus, through market mechanisms, the logic of alternatives has helped to turn something that began as a countercultural experiment into a prestige commodity. Like many other products that trade on health and self-improvement claims, foods marketed as organic, local, natural, and sustainable today carry a certain cultural capital that has contributed to the higher costs of eating alternatively (and higher costs have in turn increased the prestige of alternatively-produced foods). Michael Pollan and his neo-agrarian guru, farmer Joel Salatin, are correct when they claim that industrial food can only be sold cheaply because it externalizes health and environmental costs (*Omnivore* 243). But the fact remains that alternatively-produced foods cost consumers more, and many people are simply priced out of the market. Any claims of a populist alternative food economy are undermined by a pervasive focus on aesthetics within the alternative food movement. Organic food may be better for workers, better for the environment, and better for consumers’ health, but alternative food advocates like Pollan put these issues into the proper context: “how did it taste?” (*Omnivore* 175) This sentiment is echoed in *Tomatoland* when Estabrook asks a New York chef known for his support of local growers why he buys

tomatoes from a farmer who “doesn’t harm the land or sicken his workers with chemicals.” The chef’s reply? “It’s all about taste, really” (187–189).

Proponents of alternative food have a tendency to conflate gustatory pleasure with politics. Too often, “good” eaters—those with the moral and aesthetic sensibilities to appreciate the locally hunted boar or the “artisan” tomato—are hailed as good citizens. Daniel J. Philippon, who takes a positive view of the ways alternative food literature “collapses the all-too-common distinction between aesthetics or pleasure on the one hand and politics on the other” (172), nevertheless cautions that “focusing on pleasure runs the risk of reinforcing the notion that individual lifestyle changes are sufficient” to shift globalized cultures of consumption (ibid. 175). This is one of the most insidious elisions of the mainstream alternative food movement: a belief that the bafflingly difficult work of building a more just food economy can be boiled down to “matters of taste” (Estabrook 139).

Not only is this a profoundly classist assumption,³⁴ it suggests the neoliberalizing logic at the heart of the alternative food movement. By collapsing matters of economic or environmental justice with matters of taste, the logic of alternatives mistakes consumerism for citizenship. This elision is a hallmark of neoliberal ideology (Allen and Guthman 411). When Pollan speaks approvingly about “opting out” of the industrial food chain (*Omnivore* 254), or when Estabrook insists that we should eat “food that meets *our* standards only, not the standards set by corporate agriculture” (xii), our narrators are embracing the logic of alternatives and, importantly, its vision for what it means to be a consumer. This is because “neoliberalization is not only a political economic project,” as Patricia Allen and Julie Guthman explain, “but also one that instills particular ideas about citizenship and subjectivity” (410). Pollan explicitly engages questions of subjectivity in the passage that serves as the epigraph to this chapter, as does his character in *The*

Omnivore's Dilemma, who claims that the alternative food movement is “a novel hybrid, a market as movement, for at its heart is a new conception of what it means to be a consumer” (254). The kind of consumer described here—the ideal consumer of alternative food—is a *flexible* subject.

Cultural theorists have described flexibility as a valued trait for subjects of global, neoliberal capitalism. Flexible subjects adapt readily to changing conditions, responding dynamically to the economic, technological, and environmental crises that characterize the risk society. The logic of alternatives articulates neatly with the ideology of flexibility: in response to the risks associated with industrial food, good citizen-consumers are encouraged to “opt out,” to adjust their eating habits to new economies of risk, morality, and pleasure. But this means opting *in* to an alternative food system, one that is economically, culturally, or geographically inaccessible to many people. Alternative food aptly demonstrates Emily Martin’s warning that flexibility is a “*commodity*, something scarce and highly valued, that can be used to discriminate against some people” (xvii, emphasis mine). Insofar as alternative food advertises its products as less toxic than their industrial counterparts, the movement markets itself as an enclave of safety from pesticide exposure and other risks—for those who can afford it.

The sociologist Andrew Szasz calls this phenomenon “inverted quarantine.” When the privileged isolate themselves from risks through alternative forms of consumption, it produces a kind of gated community of organic eaters. Ultimately, inverted quarantine upholds long-standing hierarchies of power, because “the availability of seemingly safer alternative products...impedes the development of public sentiment that would support a broader reconsideration of the toxic mode of production in general” (Szasz 208–209). In encouraging consumers to protect themselves by opting out of the industrial food system, the alternative food

movement may actually help to ensure that that system continues to function much as it has for the last half-century or more. Because the flexibility necessary to consume alternatively derives largely from economic and cultural capital, inverted quarantine abandons already marginalized populations to a toxic system. This is most clearly true for industrial agriculture's wage laborers, who occupy the lowest levels of what Seth Holmes identifies as the industry's "ethnic-labor hierarchy" (74), a term that emphasizes the intersectional politics of identity, labor, land ownership, and migration that shape vulnerability to pesticide exposure. Focusing on alternative forms of *consumption* not only directs political resources away from sites of production, where the risk of pesticide exposure is greatest, but it also puts under erasure the racial dynamics of the agricultural labor system and the industry's role in shaping them.

Farmworkers are themselves subject to ideologies of flexibility that structure their relationships to food systems. For more than a century, agribusiness has worked with the state to recruit a migrant labor force. Agribusiness-endorsed immigration and labor policies have helped growers quell the pressures of labor organizing by continuously recruiting newer, more "compliant" ethnic-labor groups (J. Harrison, "Abandoned Bodies" 1198). Historically, the racialization of ethnic-based labor forces has served to naturalize the poor treatment of workers and justify labor supply changes that suit the economic and political interests of growers. In the early 1900s, Mexican culture came to be identified with seasonal stoop labor in an early manifestation of what Mae Ngai calls "imported colonialism" (132; also see Stern). This racial metonymy reached its full expression in the Migrant Labor Agreement between the United States and Mexico, commonly known as the *bracero* program. This program to bring short-term Mexican contract laborers into the United States began in 1942 to offset wartime labor shortages in California's agricultural industry. Congress voted against extending the program in 1964, but

the bracero system continued for several more years, into the late 1960s. Although the bracero program gave growers significant control over their workforce, the migrant labor system that has replaced it is “more flexible,” argues Robert Thomas, because the end of the bracero program represented a significant deregulation of migrant labor that has helped to increase the appeal of migrants as a non-citizen and especially an undocumented labor force (76).³⁵

With the end of the bracero program, growers have continued to support federal policies that facilitate the supply of a cheap, mostly Mexican migrant labor force. Yet the cycle of importing more compliant ethnic-labor forces to replace established labor communities continues. Increasingly, the lowest paying and most physically demanding stoop labor jobs are being filled not by Mestizo Mexican migrants but by (typically undocumented, migrant) indigenous Mexicans. At the farm studied by anthropologist Seth Holmes in his ethnography of migrant farmworkers, stoop labor was typically performed by indigenous Triqui workers from the Mexican state of Oaxaca. Local residents, administrative farm workers, and crew bosses justified the Oaxacans’ poor working conditions by racializing indigenous Mexicans simultaneously as “lazy” workers *and* as bodies ideally suited for stoop labor, “because they’re lower to the ground” (70; 171).³⁶ This kind of racialization has long been at the heart of migrant labor systems, which “presuppose that the migrant is without citizenship rights and has only limited power in the state of employment” (Holmes 12-13).

It is specifically the limited political power of non-citizens that makes them desirable as workers. This is especially true for undocumented immigrants, whose ties to the nation-state are almost wholly economic. Lacking political enfranchisement, undocumented immigrants are functionally “nonmembers of the community” and as such “can make no claims against the collectivity” (Thomas 209). Under these conditions, they are “forced to be more mobile, and

subsequently, more ‘responsive’ to economic conditions” (ibid.). This is to say that undocumented workers are especially subject to the regime of flexibility that characterizes neoliberal forms of personhood.

If flexibility “is an object of desire for nearly everyone’s personality, body, and organization” (Martin xvii), it functions differently in relation to different bodies. The logic of alternatives rewards economic flexibility by allowing privileged consumers to opt out of the industrial food system. But the alternative food movement paradoxically contributes to the maintenance of a food system that demands flexibility from some of the most economically and politically marginalized workers in any US industry. And because some classes of people are already presumed to be *inflexible*, the meritocratic ideology of flexibility serves to justify existing racialized labor hierarchies. When Holmes asked why Oaxacan migrant workers did not participate in higher paying work picking apples, a crop manager explained that, unlike Mestizo Mexicans and Mexican-Americans, Oaxacans are too short to reach the highest hanging fruits (171). The manager’s response demonstrates that flexibility is itself flexible, able to expand and contract in accordance with the vested interests of industry. If the ideology of flexibility is embedded within the alternative food movement and its literatures, as I have argued, we should be wary of suggestions that eating local, organic, or craft-produced foods is necessarily liberatory.

Alternative Gastrography as Self-Technology

As life narrators, Pollan and Estabrook each model for their readers the flexible subjecthood that alternative food demands of citizen-consumers. These alternative gastrographies suggest the ways that narrating toxic exposure can function as a “technology of the self,” which

Sylvia Bowerbank has noted as a growing trend in turn-of-the-millennium environmental writing. Environmental literature, she argues, “is being used strategically to inscribe new self-technologies for establishing, monitoring, and sustaining” subjects’ relationships with the environment (165). Like other conversion narratives, alternative gastrography involves the confession or reenactment of past (gastronomical) sins, as when Michael Pollan takes his family to the McDonald’s drive-thru in *The Omnivore’s Dilemma*. But alternative gastrography as self-technology is primarily structured around a self-disciplining performance that “constructs its preferred way of living ‘under the theme of care of oneself’” through a certain kind of ecologically- and morally-conscious consumption (Bowerbank qting Foucault 171). Bowerbank’s framing of environmental autobiography as a technology of the self calls attention to the ways that alternative food discourses function as a form of environmental governmentality that disciplines consumers.

As I have argued here, this focus on consumption practices also serves to paper over historical inequalities on all levels of the food system and constitutes a preemptive testimonial injustice that continues to silence farmworkers, giving preference to the concerns of more flexible consumers. For these reasons, we should recognize the alternative food movement as part of a larger normativizing trend within contemporary environmental discourses. While anti-toxics embodied health movements have served as sites where some subjects can claim recognition and redress, they have also contributed to a narrow understanding of poisoned subjectivity and the harms and vulnerabilities produced by exposure to environmental toxins. In the next chapter, I interrogate the interlocking representations of reproduction and ability that lie at the center of toxic life narratives and the poisoned subjecthood they represent.

Notes to Chapter 3:

¹ Michael Pollan, “The Food Movement, Rising,” no page.

² Scholars who use some variation of this phrase include Patricia Allen (“alternative agrifood movements”), C. Clare Hinrichs (“alternative food system initiatives”), Jill Lindsey Harrison (“alternative agrifood movement”), and Julie Guthman (“alternative food movement”). Like Harrison and Guthman, I prefer the singular “movement.” As Harrison explains, despite heterogeneity among movement actors, “the hundreds of groups that comprise the alternative agrifood movement share a key conviction that food system reform is important because food is qualitatively different from other commodities” (*Pesticide Drift* 146).

³ The sociologist Melanie DuPuis compares “Not In My Back Yard” (NIMBY) environmental politics to consumer backlash against rGBH in milk, which she characterizes as “Not In My Body” (NIMB) politics.

⁴ If “food studies” describes a field that is at once multidisciplinary and interdisciplinary, dedicated to the critical analysis of “the relationships between food and the human experience” (Miller and Deutsch 3), “food systems studies” takes a systemic view that connects “food to agricultural and nonagricultural uses of the land on the one hand and to human bodies and spirits, individual lives, and community experiences on the other” (Hinrichs 2). Food systems encompass the interrelated processes of production, processing, distribution, purchasing, consumption, and disposal. Jeffrey Sobal and colleagues also include the health and nutrition industries in their understanding of the food system (Wilkins 99).

⁵ Donatella Della Porta and Mario Diani describe social movements as “dense informal networks.” Social movements exist where “both individual and organized actors, while keeping their autonomy and independence, engage in sustained exchanges of resources in pursuit of common goals” (21).

⁶ The USDA is bound by what often appear to be conflicting mandates to promote American agriculture and promote healthy eating through the development of dietary guidelines and the like. Thus, the agency finds itself in the interesting position of monitoring the organic food industry for compliance with low-input standards while denying industry claims that organic food is safer or healthier than traditionally-grown food. Guthman discusses the development of organic standards in *Agrarian Dreams*. Marion Nestle explores conflicts of interest in federal agencies regulating food safety and nutrition standards in *Food Politics*. Coppin and High argue that federal food policy has since its inception mobilized a “politics of purity” that has masked its true goal of regulating competition.

⁷ See Allen and Guthman for a food systems studies critique of farm-to-school initiatives. Kathleen LeBesco, among many others, dissects the discourses of morality that lie beneath concerns about the “obesity epidemic” that food activists like Pollan tie to industrial food production. Julie Guthman addresses all of these issues in her provocative book *Weighing In*.

⁸ The women’s health, disability rights, tobacco control, and DES movements have all been considered as EHM’s although each is concerned with a multiplicity of forms of illness or embodiment (Brown et al.; Bell).

⁹ “Synthetic organic” refers to organic chemicals—that is, any chemical containing carbon—manufactured in a laboratory rather than occurring “in nature.” And yet, synthetic organic chemicals are derived from substances we recognize as natural, usually petroleum or coal. Because of this, many of them are similar enough to naturally occurring substances humans and

other animals may encounter that they interact easily with our bodies' endogenous chemical processes. These interactions may not be beneficial. It is synthetic organics' similarity to natural organic molecules that makes many of them carcinogenic or otherwise dangerous to human health. For an accessible discussion of synthetic organic chemicals, see Sandra Steingraber's *Living Downstream*.

¹⁰ Gouveia and Juska discuss the role of *The Jungle* in separating meat production from meat consumption in public discourse. This is another way in which Sinclair's book anticipates current trends in alternative food politics.

¹¹ Both Laura Pulido and Linda Nash make clear that despite claims from growers and government officials that pesticides posed no real risk and were necessary to produce affordable food for a growing population (and despite environmental groups' apparent discovery of the pesticide problem in the early 1960s), farmworkers developed their own theories of pesticide risk through personal experience and popular epidemiology. Nash cites testimony included in a 1961 report on the bracero program conducted by a University of California graduate researcher in public health named Henry Anderson. While Anderson was not specifically concerned with pesticide exposure, he interviewed hundreds of bracero laborers about occupational health and safety during his fieldwork in the late 1950s. Their responses suggested to Anderson that "braceros bear at least their share of occupational injuries and illnesses" (213), which some workers attributed to "hav[ing] to breathe in too many chemicals that have been sprayed on the plants where they work" (unnamed worker from Michoacan qtd in Anderson 215). As Nash powerfully argues, this testimony demonstrates how workers "read their bodies" to locate "disease not in their own bodies or in their own communities but in a landscape that they found foreign and physically threatening, and one over which they felt they had little or no control... In their epistemology, the modern environment, rather than Mexican bodies, was the site of pathology" (138).

¹² There is much, much more to say about the UFW's pesticide and grape boycott campaigns than I have the space to do here. Linda Nash, Laura Pulido, and Jill Lindsey Harrison all discuss these campaigns in relation to environmental justice. Daniel Rothenberg devotes a chapter to farmworker unions, including material on the boycotts, in *With These Hands*. For dedicated accounts of the UFW and Cesar Chavez, see Levy; Ferris and Sandoval. More recently, Miriam Pawel's *A Union of Their Dreams* and Matthew Garcia's *From the Jaws of Victory* include oral histories provided by other movement figures.

¹³ The contract representing a major turning point in the campaign was known as the Wonder Palms Ranch contract, originally signed in 1970 by two Coachella Valley table grape growers, Lionel Steinberg and David Freedman. Later that year, 26 major growers from the Delano area signed on. The document, "Collective Bargaining Agreement between the United Farm Workers Organizing Committee and Wonder Palms Ranch, a Partnership by David Freedman and Company, Inc., Lionel Steinberg, Partner," resides in the Agricultural Workers History Collection at Wayne State University's Walter P. Reuther Library. Laura Pulido includes the contract's health and safety clause—which "recognize[s] the need to protect and conserve human life, water, soil and vegetation" and stipulates that pesticides have the potential to "create grave dangers to farmworkers and to consumers"—in its entirety in her book *Environmentalism and Economic Justice* (Chavez and Steinberg in Pulido 118).

¹⁴ Hsuan Hsu argues that metonymy is “[i]nsistently local and material in scope” and so “makes visible the fatal contiguities—the effects of environmental risk factors on bodies, minds, social relations, and lived space—experienced in places that have been abandoned” (164).

¹⁵ The UFW resumed its grape boycott in the 1980s, with a renewed focus on raising consumer consciousness about pesticide exposure. The union produced a boycott video called “The Wrath of Grapes,” and Chavez delivered his speech of the same name on multiple occasions.

¹⁶ I take the text of “Wrath of Grapes” from Ilan Staven’s edition of Chavez’s speeches, *An Organizer’s Tale*.

¹⁷ The most widely known *testimonio* is probably *I, Rigoberta Menchú*. Menchú’s narrative account of violence against her Quiché people in Guatemala’s civil war was subject to a long and vicious “truth” campaign waged by the American anthropologist David Stoll, who charged that Menchú’s testimony was nothing more than propaganda manufactured by the Guatemala Army of the Poor. Stoll cited discrepancies in the account, demonstrating that Menchú could not have been present at events to which she claimed to have been an eyewitness. Scholars of life narrative and human rights testimony counter that these narrative “discrepancies” are part of the *testimonio* form and that Stoll’s understanding of autobiographical truth-telling was both Eurocentric and overly literal. Leigh Gilmore has written about the Menchú-Stoll controversy (*Limits*; “Jurisdictions”).

¹⁸ Doris Sommer challenges what she sees as mere “projections of presence and truth” in Beverly’s identification of “fraternal or sororal” connection between narrator and reader (199).

¹⁹ Pollan splits the “organic” food chain into two separate strands—the “industrial organic” and what is really a local food system that does not always observe organic regulatory guidelines—which accounts for the four meals in the book’s title.

²⁰ The market for personal narrative has grown in both print and online venues over the past two and a half decades, reflected in the rise of the academic field of life writing studies since the 1990s. Narratives of cooking and eating represent a significant trend in the “memoir boom.” Rosalía Baena has coined the term “gastro-graphy” to describe these life narratives. Scholarly studies of gastrography have tended to focus on the role of domestic food preparation in the production of gender and ethnic identity. To distinguish the life writing of alternative food, which may take up issues of food preparation and consumption but also addresses structural and policy issues, I suggest the term “alternative gastrography.”

²¹ The Pesticide Action Network, a worldwide network against the global proliferation of pesticides, designates the worst pesticides as “bad actors,” defined as any pesticide that is a known or probable carcinogen, a reproductive or developmental toxicant, a neurotoxic cholinesterase inhibitor, a known groundwater contaminant, and/or a pesticide with a high acute toxicity.

²² Dori Laub identifies three different levels of witnessing: “the level of being a witness to oneself within the experience, the level of being a witness to the testimonies of others, and the level of being a witness to the process of witnessing itself” (“Truth and Testimony” 61). I take up the question of the secondary witness later in the chapter.

²³ The EPA mandates waiting periods before workers may reenter fields after pesticide application, which vary depending on the type of pesticide used.

²⁴ These and other abuses are documented by Holmes, Rothenberg, and Estabrook.

²⁵ Although the US Department of Labor collects information on farmworker income and assets as part of the National Agricultural Workers Survey, this data is not as illuminating as one might

hope. In 2001-2002, the last year for which data is publicly available, the average individual income from all sources was \$10,000-\$12,499 (US Dept. of Labor 47). This data is somewhat misleading, however, as farmwork is highly variable not only seasonally but also year-to-year (J. Harrison, “Abandoned Bodies” 1198). This number also includes the higher wages paid to field supervisors, who represent only a fraction of farmworkers and tend to be both white and US-born (Estabrook 100; see also Holmes).

²⁶ One way in which Pollan’s narrative exceeds the moral imperative common to addiction narratives is in linking personal consumption choices to national health. It thus demonstrates Becky Mansfield’s claim that “the promise of better living through health is not just about individualized responsibility and outcomes...[but] is also about individualized responsibility for biosecurity” (972).

²⁷ Tetra-amelia is a congenital disorder characterized by the absence of all four limbs.

²⁸ Alan Kraut coined the term “medicalized nativism” to describe the association of immigrants with disease. As Priscilla Wald explains, “medicalized nativism involves more than superimposing a disease threat on an unfortunate group. Rather, the disease is associated with dangerous practices and behaviors that allegedly mark intrinsic cultural difference, and it expresses the destructive transformative power of the group” (8). In other words, medical logics align with existing racial biases, and fear of contagion becomes an excuse for anti-immigrant policies and attitudes. Estabrook’s use of the epidemiological language of disease transmission in this passage shows how powerfully myths of contagion shape cultural understandings of risk and race.

²⁹ See Allen and Guthman, “From ‘Old School’ to ‘Farm-to-School;’” Gouveia and Juska, “Taming Nature, Taming Workers;” Guthman, *Agrarian Dreams* and *Weighing In*; Hinrichs and Allen, “Selective Patronage and Social Justice;” Shiva, *Stolen Harvest*.

³⁰ According to Leo Marx, complex pastoralism “manage[s] to qualify, or call into question, or bring irony to bear against the illusion of peace and harmony in a green pasture” (25).

³¹ Beck famously, and controversially, writes, “Reduced to a formula: *poverty is hierarchic, smog is democratic.*” That is, “risks display an *equalizing* effect within their scope...In this sense risk societies are *not* exactly class societies; their risk positions cannot be understood as class positions, or their conflicts as class conflicts” (36, emphasis in original). However, what Beck calls “risk positions” are socially constituted, including by class. While “wealth accumulates at the top, risks [gather] at the bottom...Poverty attracts an unfortunate abundance of risks. By contrast, the wealthy (in income, power or education) can *purchase* safety and freedom from risk” (35, emphasis in original). Beck gives toxins in industrially-produced foods as an example of the ways risks accumulate at the bottom of class hierarchies. Thus, while the risk society, of which industrial agriculture is undoubtedly a part, does cross boundaries of class and nation, economically and socially marginalized classes experience higher rates of toxic exposure and higher risks from exposure. The perception of a “world without refuge” from toxic harms has a flattening effect.

³² Harrison and others emphasize that neoliberal ideologies are contextual and always subject to “exceptions” (see Ong). For this reason, scholars like Jamie Peck and Adam Tickell prefer the process-oriented term “neoliberalization.”

³³ Mondelez, one of the largest food processors in North America, owns the Boca and Back to Nature brands. Kellogg’s organic brands include Gardenburger, Kashi, and Morningstar Farms. Other popular organic food labels owned by major processors include Cascadian Farms (General

Mills), Horizon (Dean), Muir Glen (General Mills), Petaluna Poultry (Purdue), Silk (Dean), Soy Dream (Heinz), Spectrum Organics (Heinz), and Stonyfield (Dannon).

³⁴ Philippon concedes that in “valorizing pleasure,” sustainable food discourses risk “the charge of elitism” (174). In *Weighing In*, Guthman levies those charges with full force, dissecting the complex class and race politics of such alternative food mainstays as urban gardening and farm-to-school initiatives, demonstrating that discourses of both pleasure and health function to cover over specific structures of power.

³⁵ The bracero program was in many ways an exploitative labor system, but in theory contracts provided important worker protections, including a minimum wage. Ngai documents the ways that bracero workers involved Mexican consuls to broker wage agreements and settle disputes about the treatment of workers. In some cases, the Mexican government refused to contract bracero labor to individual US states because of evidence of mistreatment.

³⁶ Holmes points to the long history of the racialization of Mexican migrants as ideal manual laborers, about which scholars like Mae Ngai and Alexandra Stern have written: “The sentiment that Mexicans should pick berries was echoed by US Senator George Murphy from California during a Senate debate on immigration in the 1960s; he states that Mexicans”—meaning here Mestizos—“should be farmworkers because they are ‘built lower to the ground so it’s easier for them to stoop’” (Holmes 171). Holmes thus demonstrates that the same process of naturalizing labor hierarchies acts on different ethnic groups in different historical contexts.

Chapter 4

Rethinking Environmental Chemicals Through Speculative Auto/biography

Across the previous chapters, I have tracked the production of an *ur* narrative of environmental chemical exposure. Autobiographical narrators claim recognition as victims of toxic proliferation by constituting themselves as *poisoned subjects*. Poisoned subjects' ability to achieve normative forms of being and embodiment is threatened by chemicals that are represented as inherently physically and sexually disabling. This chapter casts a critical gaze on this received narrative of anti-toxics environmentalism. Recasting a performance art piece about male pregnancy within the rubric of toxic life narrative, I show how the policing of bodily difference through toxic discourse that I track across literatures of embodied health movements in chapters 1-3 impacts efforts toward testimonial and reproductive justice. The goal of this kind of environmentalist self-critique is to think through the role of personal testimony in forging a more coalitional discourse of *toxic justice*. A justice-oriented toxic discourse will seek to reinforce individuals' and communities' agency in determining the meanings of chemical exposures and their effects on human bodies while *also* working to reduce unwanted exposures and the physical and social harms that stem from them.

POP! The First Human Male Pregnancy is a website and digital art project created by Lee Mingwei and Virgil Wong as part of their interactive, multi-platform *Male Pregnancy Project*.¹ *POP!* first appeared online in 1999, purporting to document the pregnancy of Mr. Lee Mingwei, the first pregnant man. The complex, interactive art piece has been performed in

multiple venues, including both physical and digital spaces. While some elements of the project have remained constant (within *POP!*'s imaginary, Mr. Lee has been pregnant for the past 15 years) and others have fallen away (the website contains some broken links that previous viewers have described as active), the project is not dead digital matter. Virgil Wong continues to prominently feature some aspects of the project on his website, and some of *POP!*'s online material has been updated as recently as 2014. I will focus here on the website as it exists at the time of this writing, one and half decades after the project was set in motion.

Today, the site's main page features a prominent image of Mr. Lee, naked except for a pair of blue briefs, and with a protruding, apparently pregnant belly (Fig. 8). Mr. Lee stands facing the camera; his facial expression is neutral, and he holds his arms slightly away from his body at his sides, with his palms open to the viewer, inviting our gaze. The homepage is divided visually into three sections. On the left, visitors are invited to "join physicians and scientists around the world in monitoring Mr. Lee's pregnancy online." Here we can see a "live image" of Mr. Lee's EKG, ultrasound, and other vitals. Viewers are also invited to click on links that will take us to today's entry in Mr. Lee's pregnancy journal and to a video archive of the pregnancy.² A clock tracks the current date and time. The right-hand side of the page features headlines and links to purported media coverage of male pregnancies. In the center are excerpts of what appear to be viewer responses, representing three possible positions: "I am appalled," "I am thrilled" and "I want to be a pregnant man." Viewers are invited to "Read More," and the excerpts link to three "message boards," each featuring ten messages apparently posted by site visitors who felt compelled to respond to the news of Mr. Lee's pregnancy. Finally, the top of the homepage features a banner identifying the project with RYT Hospital/Dwayne Medical Center, whose trademarked slogan is "All the miracles of modern medicine." Below the banner are a set of links

to navigate the website: an overview of “the science of male pregnancy,” an interview with Mr. Lee, frequently asked questions, the aforementioned message boards, a documentary film, and a “news and press” page that includes the same links and headlines found on the right-hand side of the home page.

Numerous Internet sources characterize *POP!* as a hoax.³ Such websites take the position that *POP!* is a biomedical ruse—a deliberate attempt to deceive viewers about the nature of biological sex, medical science, or the human body—that needs to be debunked. In contrast, I approach *POP!* as an auto/biographical performance that puts pressure on biomedicine as a form of truth-telling about bodies and environments. Placing the project within the context of anti-toxics embodied health movements calls into question the liberatory potential of environmentalism in general and toxic discourse in particular. Reading *POP!* as a form of toxic life narrative, I suggest that Lee and Wong’s project opens up the possibility of alternative frameworks for understanding and responding to environmental toxic exposures. Rather than representing toxic chemicals as inherently disabling or disrupting, *POP!* as a toxic life narrative forces us to ask a different set of questions: How do bodies change when they encounter chemicals in their environments? What kinds of social meanings do those changes carry? How do subjects make their own meaning out of chemical exposure through the production of life narrative?

Performing Non-Normative Reproduction

POP!’s title carries multiple meanings. It clearly refers to fatherhood, as well as to Mr. Lee’s protruding belly—pregnant bellies are sometimes said to “pop” when the uterus protrudes over the hip bones and the pregnancy starts to “show.” It also evokes the surprise that viewers

may experience when they encounter the image of an apparently pregnant Mr. Lee, as well as the deliberate cultivation of such responses in media portrayals of non-normative forms of reproduction. In fact, *POP!* is centrally concerned with the *spectacle* of the pregnant man (Dasgupta 43; Aristarkhova 27), suggested in the prominent display of “media coverage” of Mr. Lee’s and other male pregnancies on the project’s homepage. The first headline featured in this section, attributed to the LGBT magazine *The Advocate*, reads, “Mr. Lee Mingwei congratulates fellow pregnant dad Mr. Thomas Beatie.” Beatie, a transgender man, was the subject of significant media attention during his 2008 pregnancy, which news outlets represented as shocking and singular. By including Beatie in the speculative narrative of Mr. Lee’s pregnancy, *POP!* undermines real-life media representations of Beatie as “the pregnant man,” where *the* is meant to signify the *only*.

In linking—and hyperlinking—Mr. Lee to Thomas Beatie, *POP!* comments on its own framing of male pregnancy. If the website’s banner announces Lee’s as “the first” male pregnancy, the *Advocate* headline reinforces the genealogical work that this kind of moniker performs. Naming something “the first” suggests that it will be followed by a second, a third, and so on. Both the banner and the headline are historicizing moves that situate Mr. Lee’s pregnancy in a timeline of male reproduction. In highlighting the futures of male pregnancy, the site also invites audiences to consider its pasts. Toby Beauchamp excavates one of these lineages, persuasively arguing that, “[i]n the context of historical surveillance of a variety of bodies deemed abnormal, deviant and ‘freakish,’ the image of the pregnant man may function not as an anomaly, but as a cultural construction revealing greater biopolitical investments in the regulation of bodies and reproductive capacities” (94). Biomedical forms of monitoring pregnant bodies are clearly on display in *POP!*’s representation of ultrasound and EKG images. Reading

the project as a form of toxic life narrative suggests additional legacies of surveillance and control, which I will take up later in this chapter.

Within the context of toxic discourse, the title “*POP!*” suggests something that is not apparent in biomedical readings of the project: a class of chemicals known as persistent organic pollutants, or POPs. These toxic (“pollutant”), carbon-based (“organic”) chemicals resist breaking down, meaning that they remain in the environment for a long time (“persistent”). Almost all persistent organic pollutants have been produced by humans and released into the environment primarily through application as pesticides or fungicides; some POPs are used as flame retardants in consumer products and building materials, and some are byproducts of industrial processes and waste incineration.⁴ Because of their carbon skeletons, POPs are fat-soluble and so are easily absorbed into the bodies of plants and animals. Once there, these chemicals *persist*—most bodies are not equipped to break down such molecules. This means that POPs tend to biomagnify: when one organism eats another organism, it absorbs the chemicals residing in the body of its meal. For this reason, organisms that sit high on the food chain—like humans—tend to carry a heavy body burden of persistent organic pollutants. Moreover, an individual’s body burden will increase over time, because POPs accumulate faster than the human body can excrete them. One effect of this bioaccumulation is that humans of childbearing age have generally amassed a significant burden of these chemicals, which are capable of crossing the placental barrier and are carried in breast milk. Today, all human beings on the planet are believed to carry POPs inside their bodies, and this accumulation begins during fetal development.⁵ Both POPs and *POP!* highlight the complicated relationships between reproduction, technology, and the “natural.”

These issues are doubly important—and fraught—because many chemicals characterized as persistent organic pollutants, including all of the so-called “dirty dozen” chemicals targeted for phase-out by the United Nations Industrial Development Organization,⁶ are known or suspected endocrine disruptors. Concerns about the effects of exposure on the human endocrine system is in large part what has made these chemicals of vital concern to political bodies like the United Nations and the European Union.⁷ Endocrine-disrupting chemicals (EDCs) affect the regulation of hormones in the body, which direct neurological development, metabolic function, and reproduction. As ecologist Sandra Steingraber explains, “[t]he endocrine system is impressively incapable of distinguishing between real hormones and environmental chemicals that act like hormones” (*Living Downstream* xix).⁸ This sensitivity to chemical “mimics” is part of the reason that EDCs have the potential to impact the human body even at the minutest levels of exposure. Scientists recognize that the effects of EDCs have more to do with *timing* (exposure during particular developmental phase) than with dose (amount of chemical present during a single exposure), which has traditionally been considered the measure of toxicity. Part of what has made the dirty dozen POPs a target of so much political energy is their ability to cross the placental barrier between a pregnant parent and a fetus and so to alter the course of fetal development, as happened to thousands of people whose mothers took diethylstilbestrol during pregnancy, causing congenital abnormalities like undescended testes, microphallus, urethral duplication, t-shaped uteruses and a predisposition to clear cell adenocarcinoma of the cervix and vagina.

Diethylstilbestrol was produced and prescribed for its ability to mimic the human body’s endogenous estrogens, which regulate sexual development. Many POPs do this as well, but EDCs can affect development in a variety of ways. For example, emerging science has suggested

a whole new category of endocrine disruptors impacting fat deposition called, somewhat problematically, obesogens (Steingraber, *Living Downstream* xix; Guthman, *Weighing In* 100–101, 111–113). EDCs can also influence brain development, because the endocrine and neurological systems are interconnected (Steingraber, *Raising Elijah* 235).

When environmentally-concerned scholars and activists write about EDCs, however, they almost always focus on the chemicals' effects on the reproductive system and on reproductive outcomes. EDC discourse tends to include a lot of hand-wringing about what constitutes “normal” reproductivity, especially for males:

Given what we do know about exposure to endocrine disruptors, the biological impact of which depends less on dose than timing, minimizing a child's exposure to these chemicals seems like a prudent idea...Exposure to vanishingly small amounts (0.1 part per billion) of [the herbicide atrazine] has been shown to turn normal male frogs into hermaphrodites. (Pollan, *Omnivore* 177–178)

Affected animals have exhibited problems such as a wasting syndrome in young birds; feminization of males, deformed reproductive tracts, and diminished reproductive capabilities in a variety of species; immune-system problems in a number of species; parental inattentiveness and unusual parenting arrangements such as two-female nests in birds...In humans the most publicized and, for some, shocking statistic came from research into male sperm counts. (F. Buell 127–128)

The messages about endocrine disruptors [sic] communicated to the public in the environmental literature and the press are provocative and profoundly disturbing. They include intersex characteristics (reproductive organs with combined male and female features) found in marine snails, fish, alligators, fish-eating birds, marine mammals, and bears; declines in human sperm count of as much as 50 percent; increased risk of breast cancer; small phalluses in Florida alligators resulting from pollution; penises found on female mammals; undeveloped testes in Florida panthers; masculinized female wildlife with a propensity to mate with normal females; and cognitive deficiencies in children. (Krimsky 194–195)

A 1993 BBC documentary subtitled “Assault on the Male” proclaimed that we are “swimming in a sea of estrogens.” Its director, Deborah Cadbury, has also written anxiously about “the feminization of nature.” Meanwhile, prominent endocrine disruptor researchers have asked

whether environmental chemicals are “threatening our fertility, our intelligence, and our survival” (Colborn, Dumanoski, and Meyers).⁹

Catriona Mortimer-Sandilands has dubbed this kind of sensationalism “pollution hysteria” (32), criticizing its purveyors for promulgating the cultural notion of “queers as abject-toxins” (27). When ecologists (and the environmental humanists who draw on their research) “assume the absolute naturalness of body dimorphism, even in species that harbor a wide range of characteristics within members of the same sex” (ibid. 27), they may implicitly—and do sometimes explicitly—classify transgender and intersex humans, as well as same-gender sexual and child-rearing practices, as unnatural. “Queerness” becomes a negative sign of ecological health.¹⁰ And, as the examples above demonstrate, queerness, transgender, and intersexuality are often conflated in the EDC discourse and closely associated with physical and mental impairment. In the third passage quoted above, Sheldon Krimsky places same-sex animal mating behaviors next to “cognitive deficiencies” in human children, naming both as “disturbing.” I don’t intend to single out Krimsky or others for particular censure. They are representative; this move is made over and over again in scholarly and popular accounts of toxic proliferation. Its cumulative effect is to conflate gender nonconformity with nonreproduction with impairment, while dehumanizing people with disabilities.

Let me be clear about my argument here. Endocrine-disrupting chemicals have been shown to affect development in humans and other animals, and the proliferation of these toxins may have significant consequences for ecosystems. The task is, as Julie Guthman says, “to abandon models that neglect pathological environmental conditions *and* continue to define the problem as nonnormative bodies” (*Weighing In* 113)—and, I would add, as nonnormative gender performances. Like other environmental critics, I do not deny that endocrine disruptors and other

chemicals in our environment are problems; rather, I frame the problem differently than as a crisis of gender, sexuality, or able-bodiedness.

***POP!* as Toxic Discourse**

Putting Lee and Wong's *Male Pregnancy Project* into conversation with the toxic life narratives I have been discussing shifts the frame around debates about environmental chemical exposure. If environmentalists are prone to issuing dire warnings about infertility and reproductive anomaly, *POP!* puts such anxieties—rather than sexual or reproductive difference itself—under scrutiny. The project is not so much about male pregnancy as an embodied experience as it is focused on the meaning-making apparatuses surrounding reproduction, including biomedicine, mass media, and life narration. In his artist's statement on his personal website, Lee Mingwei describes his work as sites for audiences to “explore issues of trust, intimacy, and self-awareness” (“Lee Mingwei”). In contrast to a mocked up cover of *U.S. News and World Report* featured on the *POP!* home page naming Mr. Lee “Man(?) of the Year” (Fig. 8), the project does not represent Mr. Lee's masculinity as precarious.¹¹

If the magazine cover destabilizes Mr. Lee's identity and asks audiences to serve as arbiters of masculinity, *POP!* mobilizes such displays of heteronormative boundary-keeping to direct audiences inward. The physical centrality of audience response on the website reflects Lee's interest in facilitating audiences' engagement with their own affect. Excerpts from “message boards” (which are themselves produced by the artists as part of *Male Pregnancy Project*) sit in the middle of the home page, situated between media coverage, biomedical monitoring, and links to Mr. Lee's pregnancy journal and video archive. Viewer responses are visually framed by media and medicine, suggesting the ways that such interpretive structures

shape shared understandings of bodies and lives. By foregrounding response, *POP!* encourages us to interrogate our own assumptions about what is “natural” about gender and reproduction (represented by biomedicine on the top left hand side of the page) and what is “cultural” (represented by media coverage on the right).

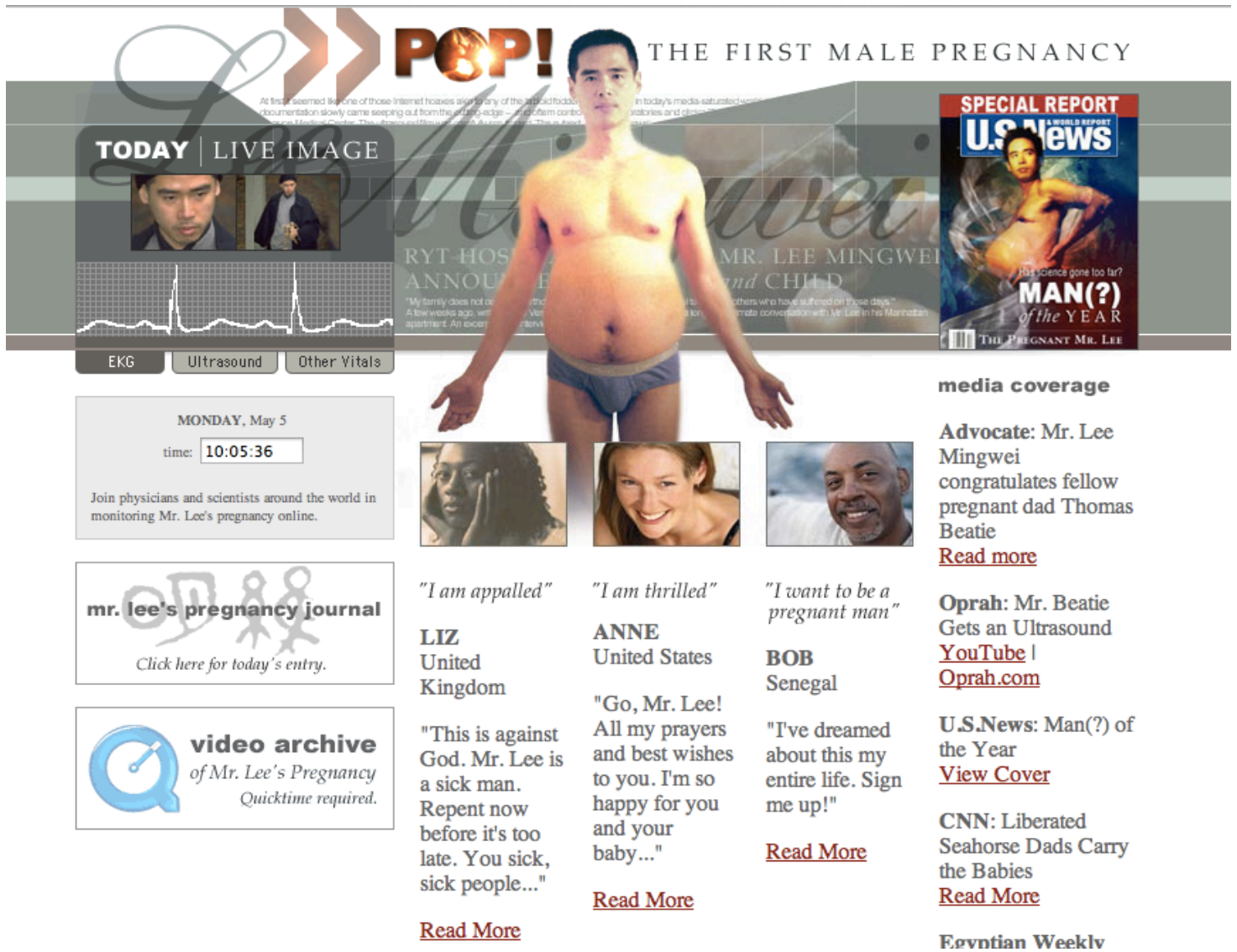


Figure 8. Home page view of *POP! The First Human Pregnancy*.
Image Credit: Lee Mingwei and Virgil Wong, *Male Pregnancy Project*

Male Pregnancy Project can thus contribute to self-critique within environmental studies as the field directs increasing attention to environmentalism’s intersections with issues of race,

gender, sexuality, and ability. In disarticulating reproduction from femininity and drawing attention to biomedicine as a meaning-making apparatus, the project intervenes in troubling confluences of queerness, nonreproduction, and disability that are all too common in environmentalist discussions of endocrine-disrupting chemicals. This kind of intervention is consistent with ecocriticism's growing embrace of an environmental justice framework. Anti-toxics movements have often taken the approach of asserting *rights*. Rights-based frameworks are often criticized because they lend themselves to narrow NIMBY politics, but they may also involve securing access to institutionalized forms of recognition and redress, as when DES daughters sued drug manufacturers or when MCSers seek workplace accommodations in accordance with the ADA. Justice frameworks, by contrast, are characterized by intersectional analyses that attend to the ways that structural issues play out in specific, localized contexts. When Mortimer-Sandilands and other ecocritics raise concerns about "pollution hysteria," they argue that the prevailing discourse about EDCs has very real, harmful implications for queer, transgender, and intersex people and is therefore inconsistent with an environmental justice agenda. Considering *POP!* as a toxic life narrative puts POPs in a new context and so suggests other ways of thinking about chemicals that affect the endocrine system than as an inherent harm from which bodies have the right to be protected.

To be clear, I am not arguing that Lee and Wong intended their *Male Pregnancy Project* as a commentary on environmental chemical exposure. Rather, it is the work of the critic to unpack the ways that toxic discourse and Lee and Wong's project speak to one another. *POP!*'s form, I want to argue, invites this sort of approach. The interactive web platform welcomes audiences to manipulate the project in novel ways, while its speculative elements also encourage speculative readings.

Speculative Auto/Biography

While many commentators have interpreted *POP!* as a biomedical hoax, Irina Aristarkhova shows that some mainstream biomedical researchers have argued that pregnancy may in fact be scientifically viable for people without uteruses (26).¹² Moreover, the project seems to be less invested in “fooling” audiences than in raising timely questions about bioethics, medical technologies, gender, and relationality. For these reasons, Mary Ingram-Waters characterizes *POP!* as “speculative fantasy” and “performative science fiction” (1, 13). While I agree that the project engages both fantasy and performativity, I want to argue for a reading of *POP!* not as science *fiction* but as a form of speculative *life narrative*.¹³ Such a reading allows us to see the project as an “authentic” performance even as it engages science fictional elements to explore Mr. Lee’s subjectivity, embodiment, and desires.¹⁴

“Autobiography” and “the autobiographical” are contested terms.¹⁵ In his classic formulation, Philippe Lejeune defines autobiography as a contract between author and audience of the “identity (‘identicalness’) of the *name* (author-narrator-protagonist)” (14, emphasis in original). What Lejeune calls the “autobiographical pact” is “the affirmation in the text of this identity” (ibid.). Put another way, in an autobiographical text, the author is taken to be “both the observing subject and the object of investigation, remembrance, and contemplation” (Smith and Watson, *Reading* 1). Paul de Man argues that autobiography is less a fixed writing or generic practice than “a figure of reading that occurs, to some degree, in all texts” (70). But fiction and autobiography invite different kinds of reading. “When we recognize the person who claims authorship of the narrative as its protagonist or central figure—that is, we believe them to be the same person,” Sidonie Smith and Julia Watson explain, “we read differently and assess the

narrative as making truth claims of a sort that are suspended in fictional forms such as the novel” (*Reading 11*).

POP! is vulnerable to accusations of hoaxing because the pregnant Mr. Lee appears to be a representation of the artist Lee Mingwei, who has not been pregnant. This seems to be a violation of the autobiographical pact of identicalness;¹⁶ Lee’s body does not verify the text’s truth claims. Yet people of color in the United States have historically been excluded—whether *de jure* or *de facto*—from testimonial contexts, even as their bodies are read as testimonies of innate racial difference or deficit. Drawing on Leigh Gilmore’s formulation of autobiography as an alternate jurisdiction, discussed in chapter 1, we might rethink the speculative elements of *POP!* not as hoaxing or as violations of the autobiographical pact but instead as forging a juxtamedical space that captures the contingencies of both medicine and the law as arbiters of truth. Read this way, the imaginative work of Mr. Lee’s pregnancy is a prosthetic apparatus that allows Lee and Wong to represent and perform “embodied relations to/with others” in novel ways (Aristarkhova 25).

Male Pregnancy Project is about, on one level, the parent-child relationship. Mr. Lee represents an atypical relationship between father and fetus, and the various modes of surveillance represented on the *POP!* website are meant to track the physiological and social health of the developing fetus and the pregnant father, respectively. But the speculative work of pregnancy also forges other familial bonds between Mr. Lee and characters with real-life counterparts. On Lee’s professional website, he explains that when both of his sisters were pregnant, he wanted to share the experience with them, a desire that led to *Male Pregnancy Project* (“Male Pregnancy Project”). This statement resonates with the ethos of Lee’s other art pieces, such as *100 Days with Lily*, which is referenced in the mock interview with Mr. Lee on

POP!. During that project, Lee carried a lily with him twenty-four hours a day for one hundred days as a sign of respect and grief for his recently deceased grandmother (Lee and Wong, *POP!*; Lee, “100 Days with Lily”). In *The Sleeping Project*, which was inspired by the artist’s encounter with a Holocaust survivor, Lee invited strangers to sleep with him in the museum space for one night, bringing with them an object of their choice. “During the remainder of the exhibition,” Lee explains, “these personal objects and recorded voices provide[d] gallery visitors with clues about the interactions between myself and the anonymous overnight guests, interactions that suggest the range of ways in which individuals experience intimacy and trust when confronted with an unknown other” (“The Sleeping Project”). Like the lily and the stranger’s object, the pregnancy functions as a prosthesis that bridges divergent experiences (death, genocide, gestation) to facilitate and represent Lee’s intimacy with another.

While Lee cites his sisters as the inspiration for his reproductive desire, both Mr. Lee’s pregnancy and the *Male Pregnancy Project* represent first and foremost the relationship between Lee Mingwei and Virgil Wong, the digital artist with whom Lee collaborated. In his description of the project, Lee figures their relationship as one of co-parents.¹⁷ Unable to become pregnant “in the real world,” Lee writes, “I turned to my friend Virgil Wong, a master digital artist, to father my child” (“Male Pregnancy Project”). On multiple conceptual levels, it is Wong who makes the speculative pregnancy of *POP!* possible; he is presented as a “father” of both Mr. Lee’s fetus and Lee’s artwork. The auto/biographical co-creation of the project reflects the representation of procreation within the project.¹⁸

Male Pregnancy Project’s auto/biographical acts are bound up with the “biomedical imagination,” a term coined by Catherine Waldby to emphasize the “speculative, ‘fictional’ dimension of the biomedical enterprise” (14). That is, “biomedical discourse is constitutive of

precisely the field of objects and relations that it imagines itself only to describe” (ibid. 140–141). When life narrative engages a biomedical imaginary, it is “able to hold open a zone of exploration that other mediations...foreclose” (Squier 22). So although Aristarkhova quite accurately describes *POP!*’s aesthetic as “biomedical realism” (25), it is Lee and Wong’s deft manipulation of biomedicine as a “truth effect” that allows them to explore its imaginative work. Realism is a strategy that makes possible the speculative mode.

The co-constitutive relationship of realist and speculative representation is nowhere more visible than in a section of the *POP!* website called “The Science of Male Pregnancy.” Following a link from the site’s home page, audiences are directed to a lay-friendly explanation of the biomedical tools and techniques that have made Mr. Lee’s pregnancy possible. “In the years since the first ‘test-tube baby’ was born in 1978,” begins an introduction at the top of the page, “physicians and scientists from RYT Hospital have been working to develop a viable technique for the successful impregnation of male individuals.” This technique is described as a five-step process that involves administering female hormones, implanting an embryo using in vitro fertilization techniques to induce an ectopic pregnancy, embryo growth (at which time Mr. Lee stopped relying on exogenous hormone sources, as the embryo itself supplied the hormones necessary for fetal development), growth of the fetus, and delivery via Cesarean section. A “Glossary of Medical Terms” offers brief definitions of some of the vocabulary used in the step-by-step explanation of Mr. Lee’s pregnancy. What is most striking about this glossary is the familiarity of most of its terms, which include “Caesarean section,” “embryo,” “IVF (in vitro fertilization),” and “placenta.” The page also features a radiographic image depicting Mr. Lee and the developing fetus and two graphs representing Mr. Lee’s hormone levels.

The radiography and hormone graphs are a visual reminder that, if *POP!*'s autobiographical performance is centrally concerned with Mr. Lee's embodied relations to/with others, those others include material actors like hormones, lab equipment, and surgical instruments. But while the project represents Mr. Lee's pregnancy as unique, his embodied relations with nonhuman others are not. "The Science of Male Pregnancy" points up the mundaneness of trans-corporeal encounters between human bodies and biomedical technologies: judging by the glossary of medical terms, the science of "male" pregnancy is not much different than the science of "female" pregnancy. For example, the entry for "ectopic pregnancy" reads, "A gestation elsewhere than in the uterus. For women, this usually occurs in the fallopian tube. Symptoms include abdominal pain, fainting, and/or vaginal bleeding." The step-by-step guide notes the "risk of massive hemorrhage when the ectopic [sic] ruptures; this is also the most common cause of women dying in pregnancy." The intense medicalization and the fixation on risk represented here function not to distinguish Mr. Lee's pregnancy from pregnancies that seem more "normal" but instead call attention to pregnancy writ large as a "fiction"—to use Waldby's terminology—of the biomedical imaginary. In this sense, while Mr. Lee's pregnancy may be merely speculative, it is not more fictional than any other pregnancy, if we consider pregnancy as a biocultural phenomenon—that is, as a set of narratives and technologies.

Rethinking "Disruption"

In mobilizing the biomedical imaginary as an alternate jurisdiction for Lee and Wong to imagine and perform Lee's reproductive self, *POP!* has the potential to shift the center of discussions about embodiment and normativity that run throughout environmental movements. This becomes apparent if we focus on the project's engagement with chemicals. In *POP!*,

hormones are not a threat to gender or sexual integrity, as in the prevailing discourse about EDCs. They are instead a means of achieving a desired bodily change. In this, the project stands in sharp contrast to the dominant narrative of poisoned subjectivity that circulates in the embodied health movements discussed in chapters 1-3. The ur narrative that emerges in the repeated telling of stories of environmental toxic exposure is of an able body that is dis-abled in its productive and/or reproductive capacities. As with all ur narratives, the assumption of representativeness can come to serve a disciplining function. While the familiarity of stories about toxic exposure aid some subjects in seeking recognition and redress, this same familiarity can make other kinds of stories—and other kinds of subjects—illegible within the schema of toxic discourse. Thus, “one fundamental connection between life narrative and somatic anomaly,” as G. Thomas Couser explains, “is that to have certain conditions is to have one’s life written *for* one. For people with many disabilities, culture inscribes narratives *on* their bodies, willy nilly” (“Disability” 458).

Transgender people, who may take exogenous hormones in order to live in their target gender, are subject to similar violations of their agency to define the terms by which their lives and embodied experiences are narrated. And, in fact, these processes are reinforced through the persistent cultural linkages between queer- and trans-ness and disability.¹⁹ When anti-toxics movements knit able-bodiedness to reproductivity and sexual dimorphism, while making these the measures of environmental health, they propagate both environmental and testimonial injustices. Yet, these disparities are not visible when the poisoned subjectivity at the center of toxic discourse turns on the disruption of ideally hetero-/cis- normative and able bodies. Reading *POP!* as a toxic life narrative makes room for different kinds of stories about what it means to be chemically exposed or to live in a body that is imagined as anomalous.

Of course, *POP!* is by no means a perfect object. Questions of testimonial justice are complicated by the fact that, although Mr. Lee's pregnancy interrupts dichotomous understandings of sex and gender, the character is not represented as transgender or queer. In an interview embedded within the project,²⁰ Mr. Lee rejects the interviewer's suggestion that he is "a transvestite [sic] and not a pregnant man." Mr. Lee remarks that he remains "biologically and anatomically" a man during his pregnancy, without regard to the slippery boundaries of such categories as biology and sex. The repeated use of the word "transvestite" in the interview to seemingly refer at once to a spectrum of gender identities and performances—from cisgender drag performers to transgender women—evinces what is perhaps a shallow and problematic understanding of the sex-gender spectrum, even as the interview challenges certain kinds of gender rigidity.²¹ At the same time, the interview criticizes the marginalization of "transvestites" and draws attention to the normalization of violence against gender nonconforming people. Thus, Mr. Lee's claim that he is "unlike the men who feel this strong desire to physically become women" should not, I think, be taken as a disavowal of transgender people or transgender desire as such, but rather as a recognition of the breadth of the spectrum of gender identity.²²

Male Pregnancy Project's relationship to trans/gender politics is, then, somewhat vexed. This is not least because transgender individuals and communities may have fraught relationships with biomedicine. While I understand *Male Pregnancy Project* as actively engaging the fraughtness of medical ways of knowing, such a critical approach cannot erase the historical and ongoing marginalization of transgender and queer identities through the instruments of biomedicine. As Dean Spade argues, the medical and psychiatric discourses to which transgender people are subject work to "naturalize and make 'healthy' dichotomized, birth-assigned gender performance" (np). When transgender people make medicalization work for them—in seeking a

psychiatric diagnosis in order to secure health insurance coverage for the costs of transition, for example, or in seeking hormonal or surgical interventions in the first place—it may require adopting a strategy of “double-edged thinking” that brackets the way these discourses actively make transgender lives illegible (Butler 108).

So although biomedicine represents the “last court of appeal” on bodily norms (Waldby 41), one way of reading *POP!* is as an attempt to broaden biomedicine’s horizon of the possible. Interpreted as a speculative form of toxic life narrative, the project could be seen as “embrac[ing] our shared interdependent transsex,” as Bailey Kier urges us to do (189). Kier contends that “everybody on the planet is now encompassed within the category of transgender” because of the proliferation of EDCs (ibid.). Rather than a sign of environmental catastrophe, transsex offers the opportunity to rethink reproduction and so to work through the multiple effects and meanings of environmental toxic proliferation (ibid. 196). Certainly, Lee and Wong disrupt biocultural investments in body dimorphism and reimagine reproduction. In doing so, they create a speculative body that both expresses and disrupts the neoliberal injunction to flexibility that has been my concern throughout this dissertation.²³

Male Pregnancy Project does not answer the questions prompted by my readings of toxic life narratives in chapters 1-3. But it does create openings for thinking differently. With its interactive web format and speculative mode, *POP!* seems to invite connection and creativity. Forging a connection between *POP!* and POPs forces a new way of looking at environmental chemicals as endocrine disruptors that recognizes that “‘disruption’ may not produce something bad” (Guthman, *Weighing In* 102). *POP!* suggests the crucial need to differentiate between violent forms of toxic trespass and the ways that bodies and subjects constitute themselves alongside and in response to chemicals.²⁴ Recognizing *Male Pregnancy Project* as engaging

environmental issues requires environmentalism to self-consciously move away from paradigms that make bodily difference itself a sign of environmental disorder. A speculative reading of *POP!* as toxic life narrative suggests, troublingly, the ways toxic discourse itself is grounded in histories of the surveillance and control of racialized, queer, and disabled bodies.

Environmentalism's Eugenic Legacies

The role of eugenics in shaping environmental conservationist ideologies has been well established.²⁵ Modern environmentalism, which has been largely characterized by conservationist and preservationist impulses, emerged alongside Progressive Era anxieties about urbanization, industrialization, and immigration. Influenced by theories of evolution, social Darwinism, and scientific racism, conservationist investment in pristine natural spaces reflected concerns about the purity of the national (white) body. In the early to mid twentieth century, environmentalist organizations like the Save-the-Redwoods League, the Audubon Society, the National Wildlife Association, the Save the American River Association, and the Sierra Club were involved with noted eugenicists like Madison Grant and Charles Matthais Goethe.²⁶ Grant, a prominent naturalist who helped found the New York Zoological Society in 1895 and the Save-the-Redwoods League in 1919, also served as president of the Eugenics Research Association and was a founding member of the American Eugenics Society. Grant is best known for his influential work *The Passing of the Great Race*, which argued for the superiority of the Nordic race (Engs 102).²⁷ Like Grant, Goethe was a president of the Eugenics Research Association and an enthusiastic supporter of Nazi race experiments.²⁸ He also cultivated a reputation as a naturalist and spent his considerable wealth supporting conservationist organizations, and in

1920 the National Park Service awarded him the title of “Honorary Chief Naturalist” (Stern 134–139).

More recently, the Sierra Club in particular has been imbricated with xenophobic and neo-Malthusian inheritors of the American eugenicist tradition like the Federation for American Immigration Reform (FAIR) and Population-Environment Balance (PEB). The Massachusetts Audubon Society likewise served as an organizational founder in 1995 of the Coalition for United States Population Stabilization. Organizations like FAIR, PEB, and the Coalition use the language of environmental preservation to legitimize racist anti-immigrant and anti-welfare policy prescriptions. Just as self-proclaimed eugenicists like Grant and Goethe did before them, these groups advocate for restricted immigration and coercive measures to curb reproduction by specific populations. The neo-Malthusian ecologist Garrett Hardin, best known for popularizing the idea of “the tragedy of the commons,” served for a time on the Sierra Club’s Population Committee, as well as the board of FAIR. Through its associations with FAIR, the Sierra Club is connected to the Pioneer Fund—which, since its 1937 founding as a eugenic society pursuing racial betterment, has been implicated in supporting through various channels Nazi racial hygiene, the Ku Klux Klan and Southern White Citizens Councils, McCarthyism, the McCarran-Walter Act of 1952, pro-apartheid groups, and Richard Herrnstein and Charles Murray’s 1994 tour-de-force racist study *The Bell Curve* (Ordover 45–50).

Eugenics is virtually synonymous in the American popular imagination with technologies and ideologies of racial betterment (in the German context, eugenics was also called “racial hygiene”). The ongoing investment of some conservationist leaders and groups in these kinds of racist logics is quite clear. But Alexandra Stern has shown that the eugenics movement in the United States shifted its focus after World War II (in an effort to “rebrand” after the full horrors

of Nazi racial hygiene had come to light) away from an explicit interest in delineating innate racial differences to mapping the contours of gender and sexual deviance. “The disarticulation and transposition of ‘race’ onto gender and sexuality,” she argues,

was central to the perpetuation of a hereditarian and evolutionist vision of civilization and its discontents in the United States...The racial panics of the 1920s reemerged as the sexual conformity of the 1950s, even as institutional racism and the racialized baggage of social Darwinism perdured, the latter often embedded in population and family planning or psychotherapeutic constructs of gender and sex. (9–10)²⁹

Anxieties about sex and gender also have a long history within conservative strains of US environmentalism, including, in the twentieth century, Rooseveltian muscular Christianity, the undercurrents of sexual puritanism within the new agrarianism,³⁰ and Robert Bly’s men’s movement. Increasingly, scholars are attending to the intersections of environmental studies and queer theory, showing how environmentalism has been invested in the surveillance and containment of queer bodies (human or otherwise).

We do not have to look very hard to see these legacies echoing in anti-toxics embodied health movements, which may or may not be immediately apparent as conservationist in nature. If, as Stern argues, eugenics “can simply be defined as better breeding” (11), then concern about endocrine-disrupting chemicals apparent within both the DES and the alternative food movements is, at least in part, a eugenicist anxiety. This is most obvious in the DES movement, which has focused on the threatened reproductivity of women and men exposed to the drug. As I argue in chapter 1, the repeated narrative that emerges from the personal testimony of DES daughters strongly links mature femininity to successful biological reproduction. To a lesser extent, this is also true of masculinity in DES sons. Recall, for example, the testimony of Warren Lehrer, who in one breath raises and dismisses the possibility that the endocrine-disrupting properties of diethylstilbestrol may have produced in him a transgender desire. Warren’s

childhood belief that he “would fit in better as a girl” may be ultimately rejected in his own testimony and the editorial commentary that frames it, but his lingering gender anxieties are apparent in his unresolved fears that he may be infertile (in Braun 44). The danger posed by DES is a multi-dimensional one. Having affected Warren’s mother’s reproduction, it also disrupts Warren’s own masculinity and possibly his reproductive capacity, suggesting the ways that reproductivity is produced at the intersections of sex, gender, and ability.³¹

So, too, in the alternative food movement. In a passage quoted earlier in this chapter, Michael Pollan worries about the health consequences of feeding his son food that may contain traces of a chemical that “has been shown to turn normal male frogs into hermaphrodites” (*Omnivore* 178). The younger Pollan’s health apparently depends on being identified as a *normal* male, where normality is defined by intact, differentiated sex organs. Here, the successful reproductivity of both father and son are threatened by chemicals that might feminize the narrator’s male offspring. As with DES, the hazards of agricultural chemicals are imagined to play out across generations. They threaten not only individual bodies but also the sense of futurity that inheres in the possibility of procreation that “normal” sex organs seem to represent. These same concerns appear with greater force in Estabrook’s *Tomatoland*, which invests heavily in the stories of Francisca Herrera, baby Carlitos, and other migrant farmworkers whose children were born with congenital abnormalities caused by pesticide exposure during fetal development. Like much of alternative food’s toxic discourse, this channeling of pesticide anxiety through the bodies of mothers has a historical antecedent in UFW campaigns. As historian Linda Nash explains, “the union’s consumer [grape boycott] campaign focused on the fact that pesticides were known to pass into breast milk, and breast-feeding mothers boycotting the pesticide-laden grapes at Safeway became a powerful image for the union cause” (166).

I am not dismissing the very real concerns expressed by environmentalists and parents like Pollan about the material effects of EDCs. I am drawing attention to the ways that this particular kind of toxic anxiety is represented within and across health social movements. The repeated invocation of the tropes of trauma (in DES narratives) and the gothic (in alternative food discourse) are part of the process of enfreakment that links disability to gender non-conformity as forms of abjection. The very insistence on the *normal* across so much of the literature on environmental chemicals—be it in the form of personal narrative, muckraking journalism, environmental criticism, or scientific writing—betrays the extent to which environmental thought is saturated with the logics of eugenics, which is fundamentally about conceptions of physical deviance or defect. Examining EHMs for ideologies of “better breeding” illuminates the overlap between the domains of gender, disability, and sexuality that have been at the center of this dissertation.

Shifting eugenic ideologies and technologies demonstrate Karen Elizabeth Jung’s claim that defect or disability “is a practice of power wherein the category can be expanded or contracted” (263). As the first three chapters of this dissertation have shown, anti-toxics social movements and the poisoned subjects who speak out of and for those movements have a stake in defining the category of disability. In the ur narrative of the DES daughter, infertility is framed as a disability in a move that links heteronormative performances of femininity to able-bodiedness. Michael Pollan makes a similar move in regards to masculinity when discussing chemical residues on food. In *Tomatoland*, disability emerges out of the intersections of production and reproduction; “birth defects” are levied as a claim about unfair labor practices and consumer safety.³²

Reading Lee and Wong's *Male Pregnancy Project* alongside other toxic life narratives concerned with reproduction puts environmentalism's long-standing entanglement with eugenics under scrutiny by imagining a program of "better breeding" that disrupts both white supremacist ideologies and gender dimorphism. Stern has shown that anti-Chinese sentiment in the United States historically manifested in representations of Chinese men as physically and sexually unfit; in the late nineteenth century, "West Coast nativists graphically portrayed Chinese men as effeminate, enervated, and spotted with suppurating pustules or ugly lesions" (20). *POP!* repurposes this imagery. Protuberant sores are replaced by a pregnant belly, linking Chinese male sexuality to medical advancement, rather than disease.³³ The figure of the pregnant man may itself run counter to the contradictory eugenic logics of circumscribed fecundity. Michael Davidson identifies a shift in representations of pregnant men during the modernist era toward male pregnancy as "a biofuturist potentiality" (127). "At a moment in which racial science and eugenics presented brave new worlds purged of defective, degenerate bodies, and in which sexological discourse made visible (and pathological) a new set of practices and subjects," the displacement of pregnancy outside of the female body served to both cripple and queer reproduction (ibid.). Speculatively linking *POP!* with POPs likewise cripples and queers toxic discourse.³⁴

I have been bracketing the multiple chemical sensitivity movement in this discussion of environmentalism and eugenics, because those narratives are not by and large interested in reproduction. While it may be less obvious, however, some of the same concerns that animate eugenics also shape the way MCSers narrate their illness experiences. Like all performances of poisoned subjectivity, the MCS anthologies I read in chapter 2 are invested in strategically recapacitating the disabled body. Zwillinger, Johnson, and their testimonial subjects seek social and legal recognition for MCSers as people with disabilities—as "true victims," to use one

MCSer's phrase (Linda Baker in Johnson 158). When they assert their right to access SSDI and the workplace and housing accommodations promised by the ADA, these narrators make a specific kind of claim about their relationship to the state. If, as some scholars argue, disability can be defined under late capitalism as the inability to work, then claims on workplace accommodation in particular function paradoxically to define MCSers as disabled *so that they may be hailed* as legitimate citizen-workers. In claiming recognition for MCSers as disabled subjects of the nation-state, these narratives challenge eugenicist notions of fitness, disability, and value.

Still, both Johnson and Zwillinger make biopolitical arguments in favor of accommodations for citizen-workers disabled by chemical exposure. Acknowledging the legitimacy of MCS diagnoses and incorporating MCSers into existing structures of accommodation, argues Zwillinger, will "keep the MCS worker working" (10). Alison Johnson makes a similar claim that "America's leaders must realize that their refusal to take toxic exposures seriously is in the long run a costly mistake that engenders not only potentially large legal settlements but also creates a group of citizens whose health is so impaired that they will need public assistance to get through life" (106). MCSers' ability to be reintegrated into the sphere of "productivity" stands as a sign of the nation's well-being. This same relationship between the individual and the national body has undergirded eugenic movements in the United States as they have pushed for forced sterilization, immigration restrictions, and the institutionalization of those deemed unfit.

I am in no way suggesting that these EHMs or the people they represent support these kinds of practices, although I may appear to be painting with a broad brush. Historians of eugenics suggest a capacious understanding of the concept that recognizes continuity across

practices that at on the surface might seem to be distinct. This has significant consequences for environmental studies. Examining US environmentalism's eugenic legacies, ecocritic Sarah Jaquette Ray concludes that "a historical perspective reveals the dangers in making the body a primary site of environmentalist practice" (3). Environmental critics and historians have untangled the significant connections between eugenics and environmentalism emerging out of the Progressive Era, and recent work in the field is beginning to show how contemporary environmental movements continue to rhyme with eugenics as it assumes new guises. Once we recognize eugenics as a set of interlocking ideologies and technologies that support "better breeding" in service of a more productive nation, we can see that toxic discourse itself is animated in part by eugenicist anxieties.

Notes to Chapter 4:

¹ Throughout this chapter, I use “*POP!*” to refer to the website as an autobiographical performance. “*Male Pregnancy Project*” is the title of the art project as a whole, and I try to use this name when referring to the conceptual framework behind the website.

² As of this writing, the pregnancy journal is not live. After several months of visiting the website and being unable to access the video archive, I have recently been able to access the videos via hyperlink from the homepage for the first time.

³ The project is featured on the Museum of Hoaxes website (Boese); is deemed a hoax by the website Hoax or Fact (“World’s First”); and the Urban Legends page of about.com calls it an “elaborate Internet hoax,” a “put-on” and “an elaborately constructed farce” (Emery). The popular urban legends website Snopes calls *POP!*’s claims of a human male pregnancy “false” but also describes the project as “an exercise in speculative fantasy” (“A Womb of His Own”). Wikipedia’s “Male pregnancy” page cites the project as “a hoax site featuring a fictitious male pregnancy.”

⁴ Some natural processes, such as volcanic eruption, are known to produce POPs; however, almost all POPs are human-made. POPs are most commonly identified with the so-called “dirty dozen” chemicals (aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, polychlorinated biphenyls, polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans, and toxaphene) targeted for phase-out in the 2004 United Nations treaty known as the Stockholm Convention on Persistent Organic Pollutants. Convention signatories “are required to reduce the risks to human health and the environment” through “measures (legal and/or administrative) to eliminate or heavily restrict the production and use of POP pesticides and PCBs, and to minimise the unintentional production and release of POPs.” The treaty also makes provision to target new chemicals for phase-out, and in 2009, the Stockholm Convention was updated to include nine additional POPs (alpha hexachlorocyclohexane; beta hexachlorocyclohexane; chlordecone; hexabromobiphenyl; hexabromodiphenyl ether and heptabromodiphenyl ether; lindane; pentachlorobenzene; perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride; technical endosulfan and its related isomers; and tetrabromodiphenyl ether and pentabromodiphenyl ether). However, it is important to understand that POPs are not limited to those chemicals targeted by the treaty, and some chemicals that are covered under Stockholm are subject to exemptions in certain contexts. These include use of DDT for malaria prevention, use of lindane for head lice control, and continued use of endosulfan for integrated crop pest control (United Nations Industrial Development Organization np).

⁵ I draw this explanation of persistent organic pollutants primarily from Sandra Steingraber’s layperson-friendly discussion in her memoir *Having Faith*.

⁶ See note 4 above.

⁷ The EU has taken stricter measures, going beyond the requirements of the Stockholm Convention. The European Commission has entirely banned the production, sale, and use of the 10 intentionally-produced POPs regulated by the UN (European Commission 2).

⁸ This raises the question of what counts as a “real” hormone. I take Steingraber to be distinguishing here between both endogenous and exogenous hormones on the one hand—that is, both hormones produced by the body and hormones introduced from outside the body—and exogenous chemicals that are similar enough in chemical structure that they are capable of

binding to cells' receptor proteins but are not intentionally introduced for this purpose. For example, the insulin shots that diabetics may take are a hormone introduced from outside the body, and human bodies respond in the same ways to this exogenous insulin as they do to the insulin produced within the body. By contrast, environmental EDCs are chemically distinct from the estrogens, androgens, and thyroid hormones they mimic. DES reveals how tricky it is to maintain a distinction between "real" hormones and hormone mimics. Known as a "synthetic estrogen," the chemical structure of DES differed slightly from natural hormones; in effect, DES was a mimic that produced "estrogenic activity," but not necessarily at the same rate and with the same timing as endogenous estrogens (Langston 32). In this case, a "real" hormone might simply be a hormone that does what it is expected to do, or what it typically does, and nothing more.

⁹ In her studies of seafood advisories, the social geographer Becky Mansfield has shown that developmental risk is often assumed at all stages in the research process. That is, even studies that are methodologically prior to risk assessment (where risk assessment represents, more often than not, the weighing of benefits against harms) prescribe special caution for premenopausal women. As Mansfield explains, "this consistency across the research shows that, at least in the first decade of this century, it is not the case that finding toxins leads to a study of health effects, which leads to risk assessment and policy interventions. Rather, the prior fact of risk assessment...reverberates through the research required to generate the evidence to make such risk assessment necessary and policy interventions meaningful" (973). In other words, EDC research is subject to a phenomenon known as "problem closure," which occurs when the definition of a problem is taken as a given from the outset of inquiry into that problem (Hajer 22; Guthman, *Weighing In* 15). Studies of endocrine disruptors *begin* with the assumption that these chemicals produce disastrous changes to human reproductive function and behavior. This assumption forecloses on other ways of understanding EDC proliferation as a problem.

¹⁰ One challenge in discussing the EDC discourse and meta-discourse is inconsistent and often imprecise terminology. For example, Mortimer-Sandilands seems to group intersex and transgender people under the label "queer," *POP!* refers to both transgender women and male-identified drag performers as "transvestites" ("Mr. Lee Mingwei"), and Greg Garrard conflates the meanings of transgender and intersex ("Nature Cures" 505). While some people may identify across these categories, the terms intersex and transgender are not interchangeable, nor can they be uncritically lumped under the term "queer." I do my best to make these distinctions clear while drawing on sources that may not do so.

¹¹ Some critics will surely disagree with my interpretation of the project as a *commentary* on the enfreakment of non-normative reproduction and pregnant men in particular. Sherry Velasco, for example, compares Lee and Wong's project to tabloid representations of pregnant men (17). Irina Aristarkhova takes seriously the project's attempts to think differently about embodiment and relationality but nevertheless concludes that *Male Pregnancy Project* is "not entirely different from the long history of mock male pregnancies that spectacularise the phenomenon" (26). While I do not want to dismiss these kinds of concerns, my own view is more in line with Sayantani Dasgupta's argument that "*POP!* is a subaltern 'takeover' of discourse around gender (and gestation) performance, embodiment in medicine, and viewership in cyberspace" (45). In the context of anti-toxics rhetoric, *POP!* has the potential to contribute substantively as critique—to disrupt the discourse of endocrine disruption, as it were.

¹² Like Lee and Wong, Aristarkhova uses the sex-specific identifier “human male.” I have tried to use gender-neutral language throughout this chapter, recognizing the complicated relationships between sex, gender, and reproductive capacities.

¹³ A recent essay by Sayantani Dasgupta also treats *POP!* as an autobiographical performance. For Dasgupta, this performance is rooted in fantasy, opening up possibilities for collaborative engagement between the audience and the artists, whose identities “comingle” as viewers imagine themselves sharing Mr. Lee’s “cyberpregnancy” (46).

¹⁴ Smith and Watson delineate five “metrics of authenticity” (a term they borrow from Hua Hsu) that produce and measure the truth-effects of human rights witnessing. While *POP!* does not situate itself within human rights contexts, we can see some of these same metrics at work in the project as a form of biomedical testimony. The site’s video, journal, and biomedical monitoring give a sense of “‘you-are-there’ immediacy”; biomedical terminology and imagery invoke an existing discourse that renders the project and Mr. Lee legible; and these apparatuses simultaneously work to contextualize the site’s documentary work as “different from the readers’ frame of reference” (Smith and Watson, “Witness” 593–594). Whereas accounts of human rights violations emphasize a sense of communal suffering, in which the witness has a “duty to narrate a collective story” that takes on the “normative shape of victim experience and identity” (ibid. 594), *POP!* seems to depart from these conventions in highlighting Mr. Lee’s singularity as “the first” pregnant man. One way of understanding the work of this dissertation would be to say that it tracks overlapping metrics of authenticity for witnessing to different forms of environmental chemical exposure, seeking to replace—or at least supplement—the rubric of authenticity with one of justice. From this vantage point, *POP!*’s departure from any one metric of authenticity does not necessarily signal hoaxing but rather opens up avenues for moving beyond the “ethics of verification” that so often functions as a form of violence against those who witness from marginalized subject positions (ibid.).

¹⁵ Autobiographical truth has historically been determined along axes of power and privilege, silencing female, indigenous, queer, and other potentially dissident voices (Gilmore, *Autobiographics*). If “autobiography” is a distinct formation of the Enlightenment period that privileges the self-interested individual, many scholars of life writing prefer the adjectival form “autobiographical” to signal a “shift from genre to discourse” (Smith and Watson, *Reading* 3).

¹⁶ Lejeune makes clear that a violation of the autobiographical pact—when the author asserts an identicalness between themselves and the protagonist that is not borne out in the real world—does not render a text fictional. The lie is itself “an ‘autobiographical’ category” (17). For Lejeune, then, *POP!* would seem to represent an autobiographical hoax. Timothy Dow Adams, on the other hand, takes a more generous view of autobiographical lies. He argues that “autobiography is the story of an attempt to reconcile one’s life with one’s self and is not, therefore, meant to be taken as historically accurate but as metaphorically authentic” (ix). For Dow Adams, “narrative truth and personal myth are more telling than literal fidelity; the autobiographer’s reasons for telling lies are more important than absolute accuracy” (x–xi).

¹⁷ In a museum installation of *Male Pregnancy Project* in the early 2000s, Lee and Wong were explicitly presented as co-parents of Mr. Lee’s fetus (Ingram-Waters 12).

¹⁸ Auto/biography is G. Thomas Couser’s term for life narratives produced through collaboration (*Vulnerable Subjects*). See chapter 1 for a more thorough discussion of auto/biography and the vulnerabilities inherent to life writing with and for another.

¹⁹ On those linkages, see Robert McRuer, Alison Kafer.

²⁰ The interview, like virtually every element of *POP!*, is a creation of the artists as part of *Male Pregnancy Project*. The name of the interviewer, Janice Versalius, coyly references the project itself. Janice is a variant of the name Jane, which is a feminization of John and, like that name, means “god is gracious.” It also suggests the Roman god of transitions, Janus, who is often represented with two faces. Versalius is a variant of Vesalius, the Latinized name of Andries van Wezel. Vesalius’s 1543 *De humani corporis fabrica (On the Fabric of the Human Body)* revolutionized Western ideas about human anatomy. The name Janice Versalius thus suggests the meeting of modern science and the divine. Note that both names are *double* variants (John-Jane-Janice and van Wezel-Vesalius-Versalius). More than a crude suggestion of Mr. Lee’s variant pregnancy, the name of the observing interviewer is a reminder that difference and change are a deeply embedded part of human culture, including cultures of both science and testimony.

²¹ While some people do identify with the term, *transvestite* is not an umbrella category and is not the way that many or most trans* people self-identify. Rather, *transgender* “incorporates the broadest possible range of gender nonconformity” (Enke 18). While *transgender* is by no means a universal term, A. Finn Enke lists “transsexuals, transvestites, cross-dressers, female and male impersonators, persons with intersex conditions, butches, studs, femmes, fem queens, drag queens, drag kinds, feminine-identified men, masculine-identified women, MTF, FTM, trannies, gender variants, genderqueers, boi dykes, trans men, trans guys, trans women, bigender, two spirit, intergender, neutrois, pan gender, third gender, gender fluid” as identities that may be encompassed by the collective term (18–19). See note 10.

²² Alternatively, some readers might consider *POP!* an appropriation of the stories of male-identified people who experience pregnancy in the real world. Read this way, the project enacts a kind of testimonial violence. Certainly, when the project is seen as a “hoax,” this contributes to the mythologizing of pregnant men as impossibly freakish, an urban legend. In his interview with Janice Versalius, Mr. Lee implicitly rejects the idea that he is putting on transgender drag.

²³ Victoria Pitts argues that spectacularly modified bodies “are disruptive...because they remain partly unintelligible while also speaking the common language of consumption, flexibility, and technological invention/intervention” (198).

²⁴ Sandra Steingraber defines toxic trespass as “the unwanted incursion of someone else’s chemicals into one’s body” (*Living Downstream* 278).

²⁵ For a sampling of the literature on the connections between eugenics and environmental movements, see Gosine, Haraway, Ordovery, Ray, Stern.

²⁶ See Alexandra Stern’s chapter on the eugenicist influence on California’s parks in her excellent *Eugenic Nation* (115–149).

²⁷ Grant’s ideas about a master race influenced German anthropologist Hans F.K. Günther, whose work directly shaped the racial theories and policies of the Nazis. Grant also helped to write the Johnson-Reed Immigration Restriction Act of 1924, which instituted an immigration quota system based on national origin, and served as vice president of the Immigration Restriction League for fifteen years.

²⁸ Edwin Black documents Goethe’s profound and public appreciation of Nazi policies of racial hygiene. In a 1934 letter to fellow California eugenics proponent E. S. Gosney, Goethe wrote, You will be interested to know that your work has played a powerful part in shaping the opinions of the group of intellectuals who are behind Hitler in this epoch-making program. Everywhere I sensed that their opinions have been tremendously stimulated by

American thought, and particularly by the work of the Human Betterment Foundation. I want you, my dear friend, to carry this thought with you for the rest of your life, that you have really jolted into action a great government of 60 million people. (qtd in Black 277)

Gosney had founded the Human Betterment Foundation in 1926 to promote eugenic sterilization in California.

²⁹ Also see Gosine and Ordovery for discussions on the links between scientific racism and the surveillance of racialized reproduction and queer sex.

³⁰ For example, neo-agrarian thinker Wendell Berry not only valorizes traditional gender roles as both a spiritual and an environmental good but also evinces a deep skepticism of hormonal forms of birth control in *The Unsettling of America*. The Sierra Club is the publisher of this and other of Berry's books.

³¹ Drawing on Lee Edelman's argument about the rise of the Child as the "perpetual horizon of every acknowledged politics" in *No Future*—an argument indebted to Berlant's theory of infantile citizenship, discussed in chapter 1 (Edelman 3)—Michael Davidson outlines what he calls a "crip futurity" that highlights the linking of gender, ability, and sexuality that I have been tracking across this dissertation. Davidson writes that "the nonreproductive body that medical science would consign to the dustbin is always, potentially, the body we wouldn't want our daughter to bear, the body we wouldn't want to keep on life support, the body that, could it speak, would want not to be born" (126). Male pregnancy captures these relationships, Davidson argues, because "even to speak about male pregnancy is implicitly to describe a close relationship between disability and sexuality" (141).

³² There is an interesting moment in *Tomatoland* when Estabrook quotes extensively from a deposition given by an executive of Ag-Mart, the corporation in whose tomato fields Francisca Herrera and the other mothers of the Tower Cabins babies born with significant congenital anomalies worked. Asked about his company's policy allowing pregnant women to continue picking conventionally-grown (and so pesticide-laden) fruit, he says, "We do not have any rules to keep anybody from working with it there. We do not discriminate against people for being pregnant" (69). The exchange raises crucial questions about the relationship between labor and reproduction and the role of institutions—either industry or the state—in regulating that relationship. While the reader is clearly meant to side against the corporation here, as the narrator implicitly does, this position presumes an individualist, rights-based approach to the issue. It pits the right to work against the right to avoid potentially harmful exposures. An environmental justice framework instead suggests the need for structural changes (ie. regulation of dangerous pesticides) that would allow pregnant workers to work and avoid exposure at the same time.

³³ Lee Mingwei was born in Taiwan and immigrated to the United States. According to his professional website, he currently lives and works in both New York and California. Virgil Wong identifies as Chinese-American. Thomas Beatie, the most famous real-life pregnant man in contemporary US culture, is also Asian-American, born to a white mother and a half-Korean, half-Filipino father.

³⁴ "Crip" has been reclaimed by some disability activists and scholars not only as a noun but as a verb. "Crip" in this context "expose[s] the arbitrary delineation between normal and defective and the negative social ramifications of attempts to homogenize humanity" (Sandahl 37). Crippling, like queering, transforms the "material uses to which queer/disabled existence has been put by a system of compulsory able bodiedness" (McRuer 32).

Coda

Eco-Normativity and Epistemic Justice

Across the previous chapters, I have tracked the production of an *ur* narrative of environmental chemical exposure. Autobiographical narrators draw on recognizable tropes and story structures to witness to their embodied experiences with toxic exposure in ways that can be recognized as legitimate. My orientation toward the toxic discourse mobilized by life narrators within contemporary embodied health movements can best be described as ambivalent. Life narratives have helped these movements increase public awareness and win political gains, but the repeated telling of familiar stories of toxic harm also limits the kinds of narratives that can be told. The narrative structures of toxic discourse as it is mobilized through autobiographical modes impact how some bodies and some stories become legible, and some illegible, as belonging to legitimately “poisoned subjects.”

Implicit in my analysis has been a sense that toxic discourse *compels* a certain kind of poisoned subjectivity. Scholars like Éric Darier and Timothy Luke have drawn on the work of Foucault to make sense of environmental movements as a form of “environmental governmentality” or “green governmentality.” Contemporary environmentalism exerts a disciplinary force, they argue, engaging and extending existing regimes of biopolitics and biosecurity to encompass all forms of life in what Darier calls “ecopolitics” (23). Ecopolitics exhibit all the hallmarks of neoliberalization. They individualize environmental harms and subject environmental risk assessment to market logics. For example, even as they appear to

challenge regimes of consumer capitalism, environmental movements compel subjects to perform environmental citizenship through green consumerism (Luke, *Ecocritique* 115–136), an argument I explored in relation to alternative food movements in chapter 3.

Personal testimony is a primary site of ecopolitics that links care of nature to care of the self (Bowerbank 173). Its investment in autobiographical modes marks toxic discourse as a technology of the self that continually “readjusts” individuals, producing flexible and responsive *ecological subjects* (Luke, *Ecocritique*). Ecological subjectivity is constituted over and against those who cannot achieve eco-normative imperatives (Di Chiro 202), producing what Sarah Jaquette Ray calls ecological others. Poisoned subjectivity, which depends for its coherence on normative conceptions of gender and ability, reclaims ecological subjectivity for some victims of toxic exposure. In the process, it makes ecological others out of some of the most marginalized subjects, including people with mental illness, undocumented workers, and transgender and gender nonconforming people. Some of these communities have long been theorizing transcorporeal encounters between chemicals and human bodies. Their continued marginalization within the toxic discourse perpetuates a testimonial injustice against these ecological others as well as an overall loss for the epistemic system.

Toxic discourses, like toxins themselves, continue to proliferate in contemporary US culture. Personal anecdote has been a crucial tool for the anti-vaccine movement, which purports to link vaccines to autism. The highest profile stories are those of celebrities—most notably actress Jenny McCarthy and, more recently, singer Toni Braxton—who use their access to news and other media platforms to levy charges that their children developed autism as a result of routine childhood vaccinations.¹ These types of auto/biographical narratives mark the meeting of the autobiographical politics of being Somebody and being some *body*.² They appeal to readers’

voyeuristic interest in the lives of celebrities while also offering insight into and shaping public understanding of experiences with impairment and disability. The anti-vaccine movement builds on the work of intersecting women's health and environmentalist movements, including DES, to challenge expert knowledge about the body and reconfigure health technologies as toxic risks. Witnesses who speak out about what they see as a form of dangerous toxic exposure may experience the same types of gendered attacks described by DES daughters and MCSers. McCarthy's critics, for example, chastise her not only for spreading misinformation but also for using Botox and modeling for *Playboy*. One needn't give credence to McCarthy's claims in order to recognize these types of statements as perpetrating a testimonial injustice that relies on a longstanding mind/body binary to devalue women as givers of knowledge.

Published life narratives are also beginning to emerge from the growing anti-fracking (hydraulic fracturing) movement. At least two such narratives treat fracking as a threat to the hetero-nuclear family. As its title suggests, Stephanie Hamel's memoir *Gas Drilling and the Fracking of a Marriage* explores the pressures put on Stephanie's relationship with her husband after they receive a lucrative offer to drill for shale gas discovered under the family's summer home. Sandra Steingraber offers fracking as one of a litany of environmental threats to her children's health in a chapter called "Bicycles on Main Street (and High-Volume Hydraulic Fracturing)" in her environmentalist child-rearing manifesto *Raising Elijah*. While educating readers about toxic proliferation and its structural causes, Steingraber offers her own family as a lifestyle model for other families attempting to manage the toxic risks posed by fracking and other technologies.

Like other anti-toxics social movements, anti-vaccine and anti-fracking activism inhabit contested domains. Each produces and is driven by anxieties that supplement scientific

knowledge with persuasive allegation. These cases highlight the difficulty of adjudicating what are by nature the murky truth claims of toxic discourse in ways that facilitate both environmental and testimonial justice. They also testify to the centrality of conceptions of health within environmentalist movements beyond those considered in these pages. While health may seem like an “uncomplicated way to link the destiny of the writing subject and her personal relations to that of the environment besieged by modernity” (Garrard, “Nature Cures” 494), health as a rubric for thinking across human-environmental relations comes freighted with eugenicist legacies and moralistic imperatives to self-improvement.³

Environmentalism has long been “invested in the fit body” (Ray 17), and these investments have not evaporated as environmental activism and criticism increasingly recognize the porousness of human bodies. If anything, conceptions of toxic trespass, transcorporeality, and actor networks have only reaffirmed the body as a threshold between discourse and materiality, fiction and biomedicine, testimony and science. A fulcrum between the human and the environmental, the porous body bears the weight of the physical and ideological pressures of environmental change.

The project of this dissertation has been to work within the schema of toxic discourse that has influenced environmental criticism for more than a decade to better understand how recognizable tropes of toxicity police the boundaries of autobiographical subjectivity at particular sites of toxic contest. I have argued that the poisoned subject created through the production of multiform toxic life narratives at the turn of the millennium is defined by physical and sexual disablement that threatens her or his reproductive and productive capacity. As poisoned subjects wield personal testimony to gain recognition and redress, they negotiate

conflicts between toxic injury and normative desire, while exploring the meanings of toxic proliferation for bodies and identities. I hope I have shown, despite claims to the contrary, that there is nothing uncomplicated about the relationship between the subject of life writing and conceptions of illness, disease, and death. Unpacking the ways that environmental discourses function in relation to these projects is one way that literary critics can leverage our expertise in service of a shared project of environmental and testimonial justice.

Notes to Coda:

¹ McCarthy has given many public interviews on her belief that a link exists between vaccines and autism and has used her role as co-host of the popular television show *The View* to promulgate this idea. She has also written several books on the subject, including a memoir, *Louder Than Words: A Mother's Journey in Healing Autism*. McCarthy's former partner, actor Jim Carey, has expressed similar views in public appearances with McCarthy and alone, but he has not been widely identified with the anti-vaccine movement or criticized by the media in the same way that McCarthy has. Braxton raises the possibility that her son's autism was caused by his MMR vaccine in her 2014 memoir, *Unbreak My Heart* (214).

² Following a 2002 review of Lucy Grealy's *Autobiography of a Face* proclaiming that narrative a "nobody memoir" in contrast to the typical "somebody memoir" written by already recognizable figures like Hilary Clinton, Couser coined the term "some body memoir" to refer to life narratives "about what it's like to have or to *be*, to live in or *as*, a particular body—indeed, a body that is usually odd or anomalous" (2). For Couser, the somebody/nobody distinction is tinged not only with ableism but also with misogyny.

³ As Breyan Strickler explains, "[b]ecause the risk society is not fully contained by cultural or legal definitions, the discourse of risk and toxicity has the fluidity to embrace other related discourses, particularly those of health" (113–114). See also Bell, Hausman.

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