

“I Know About My Own Body They Lied”

Environmental Justice, and the Contestation of Knowledge Claims in Institute, WV, and Old Bhopal, India

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A Institute, dans la Virginie de l'Est et dans le Old Bhopal en Indes, les femmes poussées par l'injustice environnementale ont noté que les médecins refusaient de reconnaître le lien entre les luttes pour leur santé et leur exposition aux toxines industrielles. Cette opposition met en évidence le rôle sous-jacent de la marginalisation du genre, de la race et de la classe en refusant cette évidence connue des femmes.

I had come back from my [in-law's] house that day. My daughter was eight days old.... [M]y eyes were tearing, and my daughter was coughing. I thought somebody was burning chillies.... [E]verybody was coughing and vomiting.... My daughter died about two and a half years after the disaster.

—Noorjahan, Old Bhopal, India (Personal communication, Jan. 2012)

They lied about that emission.... I don't care how long it takes. We're going to know one day that they lied to us.... I know about my own body.... They lied to us.... They come out smelling like a

rose, while the community goes on with this stench.

—Sue Davis, Institute, West Virginia (Personal communication, Apr. 23, 2015)

For the sense of smell, almost more than any other, has the power to recall memories and it's a pity we use it so little.

—Rachel Carson (1956: 83)

In 1962, Rachel Carson published her ground-breaking work, *Silent Spring*. With that, Carson introduced the American public to the harmful ecological and health impact of pesticide-use, and particularly DDT.¹ She noted, “Residues of these chemicals linger in soil.... They have entered and lodged in the bodies of fish, birds, reptiles, and domestic and wild animals.... [They] are now stored in the bodies of the vast majority of human beings...” (Carson 1962: 15-16). As a result of *Silent Spring*, Carson faced a barrage of industry-led attacks, questioning her knowledge claims. Notably, much of Carson's critiques were rooted in her gendered identity. Specifically, she was touted as a “hysterical” and “uninformed

woman” (Hess). Decades later, little has changed. Women-activists in environmental justice struggles are similarly belittled by “experts” in industry, the state, and the scientific community. Celene Krauss—in reference to her work with white, working-class, environmental justice women-activists in the U.S.—notes, “Male officials ... exacerbated [the] intimidation by ignoring the women, by criticizing them for being overemotional, and by delegitimizing their authority by labelling them ‘hysterical housewives’” (1998: 139-140).

Gender is often evoked when discussing the dismissal of environmental justice women-activists' knowledge and lived experiences. As Phil Brown and Faith Ferguson aptly summarize,

The women activists transform their everyday experiences, most typically their own and their neighbors' children's illness, into knowledge that they can use in the struggle against toxic waste, and they insist on its validity as knowledge. Such validity is contested by scientific experts and professionals, whose cultural

beliefs about women and science lead them to refuse to accept the women activists' claims about the consequences of toxic exposure. (151-152)

Nonetheless, a more nuanced analysis is necessary. Specifically, how do race and class factor in the construction of "knowers?" The need for a race and class-based analysis in the context of environmental justice cannot be overstated. In a recent study of 3,433 hazardous chemical facilities in the U.S., it was found that localities adjacent to hazardous facilities are "disproportionately Black ... or Latino, have higher rates of poverty than for the U.S. as a whole, and have lower housing values, incomes, and education levels than the national average. The disproportionate ... danger is sharply magnified in the 'fenceline' areas near the facilities" (Orum, Moore, Roberts and Sanchez 4).

In effect, this article will consider the phenomenon of the dismissal of women's health-related knowledge and lived experiences within the context of two diverse, but historically connected, environmental justice struggles. The first is located in Institute, West Virginia, within the wider region of Kanawha Valley—known as "Chemical Valley." The second is in Old Bhopal, India, an area that is severely impacted by the 1984 Bhopal Gas Disaster²—known as the "world's worst industrial disaster" (Hanna, Morehouse and Sarangi). In both areas, women discuss the dismissal of their health experiences, and specifically doctors' refusal to draw connections between their health struggles and their exposure to industrial toxins—which many identify as the root cause of their illnesses. While diverse factors—ranging from industry-touted misinformation,³ to the absence of comprehensive health studies—contribute to this denial, I intend to discuss the intersections

of gender, race and class marginalization, and the underlying role of these factors in the dismissal of these toxic-impacted women's knowledge claims.

"Chemical Valley" – Kanawha Valley, West Virginia

Institute is located within the region of Kanawha Valley (West Virginia), which is home to a number of chemical corporations, such as Dow Chemical (Institute, WV), DuPont (Belle, WV),⁴ and (formerly) Monsanto (Nitro, WV).⁵ According to Maya Nye, former spokesperson of the Institute-based environmental justice group, People Concerned About Chemical Safety (People Concerned),⁶ "Institute is primarily an African American community... Other surrounding communities ... are mostly poor or working class white. The entire area is Appalachian ... a marginalized culture stereotyped as being ignorant and poor" (Personal communication, Sept. 27, 2013).

Institute—a mixed-income, African American community—has a particular experience of toxic exposure, rooted in residents' racialization. Pam Nixon—spokesperson for People Concerned, and former Environmental Advocate at the Department of Environmental Protection—notes, "[O]ther than the ammonia tank up at the DuPont plant [in Belle] ... the Institute area had the most dangerous chemicals. They had 1,3 butadiene, they had the phosgene, they had ... MIC [methyl isocyanate]" (Personal communication, Apr. 21, 2015). This is not a chance occurrence. As Robert Bullard, Paul Mohai, Robin Saha and Beverly Wright note, "Race continues to be an independent predictor of where hazardous wastes are located, and it is a stronger predictor than income, education and other socioeconomic indicators" (xii).

As Institute resident and People Concerned member, Donna Willis, notes, "We could do the Black Lives Matter. Have our hands up in the air.... They killin' us on the street every day with their chemicals. We'll hold up our hands and say Black Lives Matter" (Personal communication, Apr. 23, 2015).⁷

Parts of Kanawha Valley are known for high cancer rates. This became apparent when driving through Institute with Donna Willis, and another life-long Institute resident and member of People Concerned, Sue Davis. The following excerpt aptly described our two-hour drive in and around Institute: "Mr. Pruitt over there, he had cancer.... Billy had cancer.... Jerome James, he died of cancer. He lived right there ... [and] his widow died of cancer.... Diane Carter was raised right here.... She died of cancer" (Donna Willis, Personal communication, Apr. 23, 2015). However, cancer is just one of many health issues plaguing residents. In 1987, People Concerned, with support from allies at several U.S. universities, carried out a comprehensive health survey of Institute⁸—the only one to date. When compared to national statistics, Institute residents have "significantly higher" rates of bronchitis, cataracts, hay fever, itching skin, tinnitus, indigestion, psoriasis, constipation, goiter/thyroid issues, bladder problems, hearing impairments, ulcers, and tachycardia (Hall and Wagner). Interestingly, and as if anticipating mistrust, the study notes: "The respondent-assessed health status is generally in line with national estimates. Respondents also reported less experience of stress in their lives than is the case nationally.... [This] would tend to indicate ... that *respondents in this survey were not overemphasizing their health problems*" [emphasis added] (Hall and Wagner 6).

“The World’s Worst Industrial Disaster” – Bhopal, India

Bhopal, India, is the site of the 1984 Bhopal Gas Disaster—the “world’s worst industrial disaster” (Hanna et al.). In 1969, the American-owned Union Carbide Corporation (UCC) sited a facility in Old Bhopal, the poorest subsection of the city. As

International 2014), and to date, approximately 25,000 have been killed (Sarangi 2012). Currently, 150,000 people face a myriad of chronic health issues, including respiratory illnesses, eye diseases, immune system impairments, neurological damage, neuromuscular damage, endocrine system disruption, reproductive health issues, gynecological disor-

MIC leaks (Agarwal, Merrifield and Tandon).

The Bhopal disaster, coupled with decades of toxic emissions and industrial pollution, led to the emergence of People Concerned, which has been at the forefront of environmental justice in Kanawha Valley. Sue Davis—whose brother, Warne Ferguson, was a founding member—expresses the

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in the U.S., the siting of hazardous facilities is deliberate, placing a disproportionate burden of toxic exposure on marginalized communities. According to Satinath Sarangi of the Bhopal Group for Information and Action (BGIA),⁹

[O]ld Bhopal is [largely] composed of ... immigrants, driven out of their [villages] ... as a result of ... mechanized agriculture ... and other “development” projects. Over 75% ... earned their livelihood through daily wage labor and petty business.... [T]he Muslim poor ... formed over 35% of the population.... (1996: 101)

Utilizing untested technology, and amidst a myriad of safety hazards, the UCC-Bhopal plant formulated, and later manufactured, pesticides (Hanna et al.).

On December 3, 1984, 40 tonnes of methyl isocyanate (MIC)—a substance five times more toxic than phosgene, which was used as a chemical weapon during World War I (Rajagopal)—leaked. Within three days, up to 10,000 were killed (Amnesty

International 2004), as well as cancers (Sarangi, Personal communication, Jun. 28, 2014). Notably, many of the illnesses experienced by the gas-affected population are dismissed, as will be discussed further in greater detail. In fact, an early health study felt it necessary to clarify, “Each symptom was described in such graphic detail that it was obviously based on the patient’s own experience and *could not be malingering or wild imaginations as some are apt to allege*” [emphasis added] (MFC 6).

The Historic Connection between Institute and Bhopal

While the Bhopal Gas Disaster is a prime reference point for the U.S. environmental justice movement (see Pariyadath and Shadaan), it has particular significance in Institute. Following the Bhopal disaster, Institute residents learned that MIC was being manufactured in Institute’s UCC facility. UCC claimed that the facility was safe; however, the company’s records indicated that the plant had leaked MIC 28 times between 1979 and 1984. UCC later admitted to 62

deep connection between Institute residents and Bhopal gas survivors. She notes, “I share their grief. I share their heartache and heartbreak. When it happened to them, it happened to me” (Personal communication, Apr. 23, 2015).

In effect, while Institute and Old Bhopal are distinct sites of environmental racism, they are also sites of an intertwining history, and shared struggle. This deep connection is aptly summarized in the following statement by People Concerned in 1985:

We are residents, professors, and college students¹⁰ who oppose MIC production in our community. We do so not only because a disaster similar to Bhopal could happen here, but also out of respect for the victims and survivors in your city.... We see Union Carbide’s haste to make profits again from methyl isocyanate as an indication of little concern for what happened to the Indian people, and little concern for the predominantly black community that lives just downwind from the Institute plant. The lesson of the Bhopal

disaster for us is that Union Carbide cannot be trusted to insure our safety.... We hold our hands in brotherhood to you. May our common concern for safety and health bond your community and ours for many years to come. (Agarwal, Merrifield and Tandon 31)

It is further indicated in the solidarity statement released by the International Campaign for Justice in Bhopal (ICJB), following the 2014 Elk River spill:

[ICJB] ... expresses solidarity with the communities of West Virginia that are facing a toxic nightmare.... The contamination of our water ... is a heinous crime. Like you, Bhopalis have faced widespread groundwater contamination.... Toxic facilities are routinely situated in areas populated by the poor, working-class and/or racial minorities and, left to self-regulate, chemical industries will continue to pose a threat to the lives and environments of such communities. (2014b)

My impetus for focusing on Old Bhopal and Institute is to demonstrate that these distinct struggles, which are connected by history and their fight against the toxic trespass of their bodies and environments, converge to (informally) form a transnational environmental justice struggle that contests the disproportionate burden of industrial pollution and the resultant health impacts on racialized and working-class bodies (see Pellow).

Methodology

A feminist and phenomenological methodology underlies this study. Qualitative methodologies are “flexible, fluid and better suited to under-

stand the meanings, interpretations and subjective experiences of those groups who may be marginalized, ‘hard to reach’ or remain silenced” (Bhopal 189). Feminist methodologies, in particular, aim to “capture women’s lived experiences in a respectful manner that legitimates women’s voices as a source of knowledge” (Campbell and Wasco 783). This is pertinent, as environmental justice women-activists are routinely excluded from knowledge production (being viewed as hysterical, ignorant, and suspicious) largely due to their marginalized gender, race, and class identities. Moreover, a phenomenological approach “argue[s] ... that the patient’s self-understanding and experience of illness ... offers a legitimate source of relevant medical knowledge,” making this framework particularly apt (Goldenberg 2628).

As an observer of the struggle for justice in Bhopal, as well as a participant in the solidarity group, the International Campaign for Justice in Bhopal, North America (ICJB-NA), I will draw on historical data, as well as narratives gained from my various interactions with women-activists residing in Old Bhopal, who are impacted by the ongoing Bhopal gas disaster.¹¹

It is in the capacity of ICJB-NA that I learned about, and connected with, People Concerned. In April 2015, I travelled to Institute in order to meet these women-activists, and learn about their experiences of toxic emissions and industrial pollution. While I had initially planned to explore issues surrounding women’s motivations for activism in People Concerned, health and healthcare emerged as prime issues in each of the five semi-structured interviews carried out. A similar trend was apparent in my interactions with Bhopali women-activists. The struggle for environmental justice is, after all, a struggle for health, recognition, and justice.

Making the Connection

In both Old Bhopal and Institute, women find their knowledge and experiences of illness—and particularly the causation—dismissed by medical professionals. As Phil Brown and Edwin J. Mikkelsen note, “Science is ... limited in its conceptualization of what problems are legitimate and how they should be addressed.... [P]hysicians are largely untrained in environmental and occupational health matters, and even when they observe environmentally caused disease, they are unlikely to blame the disease on the environment” (132). In the context of Institute, and in relation to an autoimmune disorder she developed after a chemical emission, Pam Nixon notes,

[The doctor] didn’t want to... give a causation of it.... None of the doctors here in the Valley ... would ever say what was causing your problem.... I know [the chemical release] affected me.... [T]he reason I say that is [because] every time I would almost go into remission, and they would have a release at a particular unit ... I’d have symptoms again.... I knew it was coming from the plant, but I couldn’t get a doctor to say it was coming from the plant. (Personal communication, Apr. 21, 2015)

Although not in Institute, Stephanie Tyree—a Board Member of People Concerned, and a long-time environmental justice advocate in West Virginia—relates a similar narrative. Following the 2014 Elk River spill in the region,

What they told you to do was turn on your hot water at full force, and just flush all the water out. The chemical that was spilled, when it was heated up, it

turned into ... a neurotoxin.... When we were doing this ... [the] whole apartment filled up with gas. You could smell it. It was really intense.... I got a really bad migraine from it that lasted for like a week.... [E]ventually I went to ... a MedExpress Center.... I told them that I got it because of the [contaminated]

ers who have lost their offspring or who are bringing up deformed infants, the shocking accounts given by the junior staff of the hospitals, midwives and nurses who insist they have never seen any birth-and-death cycle of this kind before.... Against this we have the official version of bureaucrats and senior doctors

ground water” (ICJB 2014a). Or that when travelling through Institute, Donna Willis noted, “I just had an aunt die of cancer. I just had a girlfriend who ... was raised with me that just died of cancer. Her mother died of cancer,” to which Sue Davis responded, “It’s unbelievable, and we can’t get a study” (Personal communication, Apr. 23, 2015).

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water, and the doctor didn’t believe me.... He was like, “I don’t think that’s what it’s about... I think you just have a bad headache....” I was like, I think I know what it’s about.... (Personal communication, Apr. 24, 2015)

Maya Nye concurs. “A lot of stories that I heard after the Elk River chemical spill was that doctors were refusing to make any sort of connection between their symptoms and the exposure to the MCHM [crude 4-methylcyclohexane methanol].” However, “[A]fter the Elk River chemical spill ... I’ll bet doctors were more likely to make the connection versus a one-off release ... because more people were impacted [and] ... people of affluence were also affected ... white folks, not ... people of colour” (Personal communication, Jun. 8, 2015).

The experiences of Nixon and Tyree are consistent with those of women in Old Bhopal. Shortly after the Bhopal disaster, and in reference to the prevalence of reproductive health problems, a journalist observed,

There are shocking tales of moth-

who are under instruction not to talk. An attempt is being made to cover up the deformities and abnormalities being recorded.... Nobody knows if the trauma will end with this generation, or the next. (Sarin)¹²

A 2004 study re-iterates some doctor’s hesitancy to relate illnesses to MIC exposure. Following visits to various hospitals, it was noted, “Doctors were refusing to admit to the fact that MIC ... had affected major organs” (We for Bhopal 37). Further, “The doctors were not willing to admit that the high incidence of cancer can be related to the affect of the gas. There was simply not enough research to back up any such theory...” (We for Bhopal 56). Here, it is imperative to ask: Why are there so few studies on the health impacts of toxic exposure in Old Bhopal and Institute? Consider that over three decades after the Bhopal disaster, survivors’ organizations continue to have to ask for, “[T]reatment protocols specific to exposure related health problems and ... medical research that benefits the gas victims and those exposed to contaminated

Maya Nye provides a useful response in the context of Institute, but with lessons that can be applied in Old Bhopal and elsewhere:

[T]here have been [more] studies done on the Elk River chemical spill, [than] any of the spills that happen ... in Institute or in Belle, [which is] more of an economically depressed area.... *[More affluent people were impacted [which] is the reason why more studies happen.* [emphasis added] (Personal communication, Jun. 8, 2015)

The Influence of Race, Class and Gender

It is integral, then, to ask how gender, race and class oppression influences the apparent denial of illness causation. Prior to delving into the particular context of Institute and Old Bhopal, it is imperative to note the knowledge/power hierarchy that can underlie the relationship between medical professionals and lay persons. Martha Balslem provides a useful summary from her in-depth case study of a working-class community

in Philadelphia. She notes the strained relationship between the medical establishment and residents, who attribute their illnesses to industrial pollution—an assertion that the medical community is less willing to make.

For many lay people, contact with the medical-care system has at some point involved the felt experience of a loss of personal authority. These experiences are often dramatic and terrifying.... Medical social scientists have described in elaborate detail the physician's power to confer or deny legitimacy to particular interpretations of patient sign, symptom, and behaviour; charged that through the distinction between scientific knowledge and folk knowledge, lay interpretations are cast as illegitimate and inconvenient counterpoints to real medical knowledge.... (6-7)

Pertinent here is: What groups, if any, are granted more legitimacy than others? C. Sathyamala notes, "In the doctor-patient relationship, generally the patient is considered a malingerer unless clinical and laboratory tests prove that she/he show some changes.... This is exaggerated when the complainant belongs to an "inferior category"... either in terms of class or sex" (1988: 40). The role of gender, in particular, has warranted a significant amount of scholarly attention. As Marci R. Culley and Holly L. Angeli-que summarize, "Science ('rational/masculine') has typically rejected women's 'ways of knowing' in antitoxic efforts ('informal,' 'experience based,' 'housewife surveys') as unscientific, unobjective, and irrational" (2003: 447). This analysis is pertinent in the context of Old Bhopal where "[t]he belief that women are emotional and hysterical creatures, led researchers to conclude that the effect on pregnan-

cies was due to the enormous stress these women underwent.... Stress, of course, may have taken its toll, but the tendency was to put the entire blame on the emotional state of the women" (Sathyamala 1994: 130). This is also pertinent in the context of Institute. Sue Davis notes,

[They] say, "Oh, she suffers from paranoia. She's paranoid regarding the chemical plant"... Both hospitals said it.... [T]hen you look at their descriptions, and ... you see where they created all this stuff that they lied about.... They were so rude, and so ... non-caring, and they don't know what we go through.... [T]hey said, "She has fears"... Who am I gonna fear? Who am I gonna fear? I don't fear them. I don't fear their chemicals. I live so that if I die tomorrow, I know where I'm going. (Personal communication, Apr. 23, 2015)

Complicating the analysis, allegations of "paranoia" and "hysteria" are not limited to women. In the context of a working-class community in Southern West Virginia, Stephanie Tyree notes,

They were having [coal slurry] through their water systems, and having a lot of health impacts from that, and cancer clusters.... [T]hey [both men and women] really struggled to get doctors to recognize the health impacts.... *A lot of doctors telling them that they were imagining things.... They were hysterical....* [emphasis added] (Personal communication, Apr. 24, 2015)

In addition, Donna Willis shared the particular ways in which African American women's knowledges, lived experiences, and resistance is discounted:

"Black women aren't afraid of speaking out against injustice.... Society is quick to place a label on anyone who isn't snowed in by their hypocrisy.... There are elements in our environment that are killing us... If a Black woman returns an insult in kind, then up pops the race card. She's loud, trying to intimidate us, threatening...." (Personal communication, Feb. 17, 2016)

In effect, reducing the discussion to gender serves to ignore other key aspects of identity, such as race and class, which—alongside gender—confer to assign (or deny) legitimacy. In the context of Old Bhopal, the intersections of race, class, and gender serve to deny legitimacy, in particular, to gas-affected women. To illustrate, a gynecological health study, conducted in 1985, found a correlation between MIC exposure and gynecological illnesses. The findings were widely contested by Bhopal's medical establishment, in a manner that indicates gender and class discrimination, as well as anti-Muslim sentiments. Gynecologists affiliated with India's leading, state-sponsored medical body, the Indian Council of Medical Research (ICMR), said, "Oh, these poor women live in such filthy conditions. All of them have pelvic infection. It is very frequent amongst Muslim women" (Kishwar 38). Moreover, three Bhopal-based gynecologists, and one Bhopal-based obstetrics and gynecology professor identified "...gynaecological symptoms as 'usual,' 'psychological,' or 'fake' and the gynaecological diseases ... as 'usual,' 'tuberculous,' or 'due to poverty and poor hygiene'" (Sathyamala 1988: 50).

The perception that gynecological illnesses were "fake" warrants further discussion. It is rooted in the oft-touted allegations of "compensation neurosis" (feigning illness in order to gain larger sums of compensation),

which is linked to the marginalized class identities of the gas-affected population. C. Sathyamala observes, “The gas victims were poor and a larger proportion were women ... and it was easy for the medical community to dismiss their complaints out of their ... suspicion of such people” (1988: 40). These perceptions persist. In a 2004 interview with the former

assistance with healthcare.... You’re less likely to have quality healthcare, I would say, or to be taken seriously.... [A]s far as race goes, I would say that there are probably similar barriers.... I would say that the barriers are the same regardless of class, when it comes to race.... (Personal communication, Jun. 8, 2015)

Although the People’s Health Centre was raided by police, and shut down after twenty days, it is an early and notable example of the struggle for healthcare in Bhopal that addresses the needs of residents impacted by MIC exposure. Today, the Sambhavna Trust Clinic carries on the tradition of the People’s Health Centre. Established in 1995, and

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Director of Bhopal Gas Tragedy Relief and Rehabilitation, Bhopal’s Chief Medical Officer, and several high-ranking Bhopal-based hospital officials, it was noted, “Look don’t be taken in by what people tell you.... It is all gimmicks.... When the question of giving them compensation money came up they all lined up.... The fact of the matter is that 95% of these people are not gas victims” (We for Bhopal 57).

Notably, the suspicion of impoverished, working-class, and racialized communities is pertinent in the context of Institute as well. Maya Nye notes,

I would say that there’s ... a stereotype of “working the system,” the healthcare system.... “Working the system” ... would probably be someone who is low-income, on disability potentially, who has Medicaid.... Those are people who are considered people who “work the system,” people who are living off the system.... I would say that, with the class issue, you’re less likely to be taken seriously if you’re on disability, or if you have some sort of public

In effect, in both Institute and Old Bhopal, toxic-impacted communities have been labelled by some of the medical community as “paranoid,” “hysterical,” “ignorant,” and “fake.”

However, both communities have led a relentless struggle for health and justice. Aware of Union Carbide’s attempt to silence the health impacts of MIC exposure, Bhopali survivors and solidarity activists opened the People’s Health Centre in 1985, noting:

For the past six months, politicians have hidden the problems of gas victims; withheld effective cures and blindly pumped people full of random drugs, playing havoc with their lives. We have fundamental human rights to health and proper medical care.... This clinic was made for the people by the people, it is for the benefit of gas victims. We intend to make it a model for public struggle against the merchants of death... Down with the murderer Union Carbide! The fight for medical care is a fight for our rights! (Bhopal Medical Appeal and Bhopal Group for Information & Action 27)

staffed primarily by survivors, this clinic provides free ayurvedic and allopathic care to those impacted by the Bhopal gas disaster. In addition, medical research and public health education is carried out, to the benefit of survivors, their children, and those living in the communities impacted by groundwater contamination.

These efforts are in addition to the ongoing work of the International Campaign for Justice in Bhopal—led by survivors’ groups and a grassroots support group. Under the guiding principles of the precautionary principle (a substance must be proven non-harmful prior to use), the polluter pays principle (those who pollute are responsible for clean-up), right-to-know (the public must have accessible information about threats to their bodies and environments), international liability (corporations must not be allowed to abscond from legal action, wherever that action is initiated), and environmental justice (racialized, Indigenous and poor communities should not have to bear the burden of toxic bodies and environments). ICJB focuses on the short-term goals of relief and rehabilitation, and the long-term goals of justice and

accountability. This includes the rights to adequate medical care and research on the long-term impacts of MIC exposure, social and economic rehabilitation, environmental remediation, adequate compensation, and justice and accountability within the Indian and U.S. legal system. The Bhopal campaign's three decades of work has led to a number of significant victories, although the struggle for justice is ongoing.¹³

In Institute, the only comprehensive health study to have taken place was sponsored by People Concerned (Hall and Wagner). The study aimed to identify recurring health issues, develop a community health profile, demonstrate the need for improvements in healthcare responses, and demonstrate the need for epidemiological studies (Holt). A group newsletter during the time noted, "Was it deliberate oversight or mere negligence that led to little effort to obtain systematic information about the health status of communities living in close proximity to chemical plants?" (Holt 1).

Like ICJB in Bhopal, People Concerned has been at the forefront of both prevention and remediation efforts in West Virginia for the past three decades. This includes the development of a Pollution Prevention Program in the 1990s. A notable part of this initiative was an "Odor Patrol," in which community members would monitor, identify, and report odors stemming from the chemical facilities. In addition, a community air-monitoring program was put into place, following the 2008 explosion at Institute's Bayer CropScience facility. Finally, People Concerned has advocated for effective emergency response plans, third-party safety audits, greater transparency, and has been a key voice in calling for chemical safety and environmental legislation in West Virginia (Maya Nye, Personal communication, Jul. 30, 2016).¹⁴

Conclusion

Environmental justice is a struggle of Indigenous, racialized, and working-class communities—and particularly the women in these communities (Brown and Ferguson; Krauss 1993). A significant aspect of the struggle is gaining recognition in order to gain healthcare, justice, and equality. Notably, while race and class oppression influences the siting of hazardous facilities; it also operates in conjunction with gender oppression to influence the communities' ability (or, more appropriately, inability) to gain recourse. Due to this, residents find their knowledge claims dismissed, as they are perceived as "hysterical," "paranoid," "fake," and "suspicious." For Old Bhopal and Institute, this means that medical professionals do not link the myriad of health issues to toxic exposure—a refusal that is at odds with residents' claims, which, in turn, impacts resident's ability to gain recourse.

However, these communities possess a knowledge that can supersede outsider knowledge claims. Underlying their knowledge claims is a historical awareness, an understanding of the larger framework (Brown), as well as sensory perceptions. As Phil Brown and Edwin J. Mikkelsen note,

[P]eople often have access to data about themselves and their environment that are inaccessible to scientists. In fact, public knowledge of community toxic hazards in the last two decades has largely stemmed from the observations of ordinary people... Even before observable health problems crop up, lay observations may bring to light a wealth of important data... Yellow Creek, Kentucky residents were the first to notice fish kills, disappearances of small animals... (127)

Consider the importance of smell in Pam Nixon's narrative, "[W]here I grew up... we were downstream from the Belle [DuPont] plant... [W]hen they would have releases into the water, there'd be large fish kills, and of course the fish would float down river... and so the smell of the dead fish would come up into [our home]" (Personal communication, Apr. 21, 2015). Or the significance of sound for Savannah Evans, following the 1985 leak of methylene chloride and the aldicarb oxide in Institute. At a town hall meeting, Evans noted, "The birds stopped singing Sunday morning, and they came back Wednesday. I pay particular attention because my husband and I both love birds" (Pickering and Lewis). It is largely through the senses that these communities *know* the impact of toxic exposure on their bodies and environments. It is this community-based, expert knowledge that must underlie and drive the comprehensive health studies that are so desperately needed in both Old Bhopal and Institute.

While in Institute, I experienced an odd, itchy sensation in my throat. I immediately dismissed myself as "paranoid," as I could see the chemical plants nearby. Two weeks later, my colleague in ICJB-NA noted a similar experience when she was in Institute, with an activist from Bhopal. She said, "It felt like [my nose and sinuses] were burning... It started about five minutes after we got there, and stayed throughout our time in the area" (Ellen Shifrin, Personal communication, May 11, 2015). I reflected back to my own experience, and, particularly, my reducing my knowledge and experience to "paranoia." Perhaps it is time that we stop dismissing, and start embracing the truth of our senses.

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¹My intention is not to dismiss the foundational work of labour unions and activists, who were at the forefront of promoting industrial health and safety long before Carson's work brought these issues to mainstream attention.

²The Bhopal gas disaster is often referred to in past tense, being that it occurred over thirty years ago. However, as the impact is both ongoing and growing, I choose to refer to the disaster in the present tense.

³Consider Institute resident, Donna Willis's, observation: "So, when we heard that [the chemical company] maintained that they contained [the chemical release] into the fence area, you either have to be an idiot or a stone-cold fool to think that the chemical didn't get outside that chain-linked fence that's got big holes in it. They actually could con our legislatures into believing that crap" (Personal communication, Apr. 23,

2015). This kind misinformation contests resident's claims of toxic exposure and subsequent illness. Or consider that following the Bhopal disaster, UCC's Bhopal-based medical officer informed hospital staff that MIC was non-poisonous, and that applying a wet towel on the eyes was a sufficient remedy (Agarwal, Merrifield and Tandon). Unfortunately, the instances of industry-touted misinformation in the case of both Bhopal and Institute are vast.

⁴According to the U.S. Chemical Safety Board, "A series of preventable safety shortcomings . . . led to a string of three serious accidents . . . on January 22 and 23, 2010 . . . In one of these accidents, a worker died following exposure to phosgene, a gas used as a chemical weapon in World War I."⁵Monsanto ceased its Nitro operations in 2004. In 2012, the company was ordered to provide compensation to residents due to dioxin contamination (RT).

⁶People Concerned About Chemical Safety was formerly called People Concerned About MIC. To avoid confusion, I will refer to the organization as People Concerned.

⁷A forthcoming publication by Dillon and Sze (2016) looks at the constriction of breath, through environmental racism and anti-Black police violence.

⁸The study includes Institute, Pinewood and West Dunbar, which collectively make up the community of Institute.

⁹BGIA is one of five Bhopal-based leading groups within the International Campaign for Justice in Bhopal (ICJB), a coalition of environmental and social justice groups.

¹⁰Notably, Institute is the site of West Virginia State University, a historically Black college.

¹¹ICJB-NA is the North American solidarity tier of the International Campaign for Justice in Bhopal. I have been involved in ICJB-NA peripherally

since 2006, and more centrally since 2013. It is, therefore, apt to describe myself as a *keen* and *active* observer of the struggle for justice in Bhopal.

¹²Here, it is worth noting the power dynamics (gendered, and otherwise) *within* healthcare institutions. In Sarin's observation, it is the "junior staff of the hospital, midwives and nurses" that note the prevalence of reproductive health issues, while the "bureaucrats and senior doctors" choose to silence this narrative.

¹³For more information, and to support the ongoing work of the Sambhavna Trust Clinic and ICJB visit: bhopal.org (Sambhavna Trust Clinic), bhopal.net (International Campaign for Justice in Bhopal).

¹⁴For more information and to support the work of People Concerned, visit: peopleconcernedaboutmic.com.

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