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Toxic Lunch in Bhopal and Chemical Publics

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Abstract

On November 28, 2009, as part of events marking the twenty-fifth anniversary of the disaster at the Union Carbide plant in Bhopal, gas survivors protested the contents of the report prepared by government scientists that mocked their complaints about contamination. The survivors shifted from the scientific document to a mediated lunch invitation performance, purporting to serve the same chemicals as food that the report had categorized as having no toxic effects. I argue that the lunch spread, consisting of soil and water from the pesticide plant, explicitly front-staged and highlighted the survivor's forced intimate relationship with such chemicals, in order to reshape public perception of risks from toxins. Chemical matter like sevin tar and naphthol tar bound politicians, scientists, corporations, affected communities, and activists together, as these stakeholders debated the potential effects of toxic substances. This gave rise to an issue-based "chemical public." Borrowing from such theoretical concepts as "ontologically heterogeneous publics" and "agential realism," I track the existing and emerging publics related to the disaster and the campaigns led by the *International Campaign for Justice in Bhopal* advocacy group.

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> On November 28, 2009, in Bhopal, a group of women in saris and burqas spread out a tablecloth and lined up a series of plates, cups, and glasses containing chemical wastes and contaminated water. They had invited several ministers, bureaucrats, and scientists to lunch with them. The dignitaries never arrived, but labels with their names were present next to the plates, and the women continued to wait for them as media cameras snapped pictures.
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> See Spiegel (2010, 8); see Figure 1.

In Bhopal, capital of the state of Madhya Pradesh, India, a methyl isocyanate leak occurred from the pesticide plant of Union Carbide (now part of Dow Chemical) on December 3, 1984. The leak resulted in thousands of deaths and injuries and precipitated unimaginable long-term birth defects, breathing problems, and other ailments, turning out to be the worst-ever industrial disaster in history. The performance sketched above was part of a series of events marking the disaster's twenty-fifth anniversary. Every year, women survivors of the Bhopal gas tragedy invite people to commemorate its anniversary by participating in such events. The anniversary provides them with a space to collectively mourn their traumatic past and bleak future (Fortun 2001). This time, the press release from the survivor union groups included a lunch invitation to a "Benign Buffet."

Mass media outlets dutifully present themselves during the disaster's anniversary, though they remain absent from Bhopal for the rest of the year. Media attention at this time provides an opportunity for the survivors to voice to the government their persistent demands for health-care benefits, clean drinking water, and a sanitized environment. The demands often have a contingent character: this time, a risk assessment report recently released by governmental scientific institutions, the Defense Research and Development Establishment (DRDE) in Gwalior and the National Environmental Engineering Research Institute (NEERI) in Nagpur, was under attack.

The victim-survivors affected by the Bhopal gas disaster have long complained about the contaminated environment they have been forced to live in since 1984, but the scientific study commissioned by the government mocked their claims by suggesting that the effects of chemicals found

Figure 1. Lunch sit-in. Courtesy of International Campaign for Justice in Bhopal (ICJB).

in the factory's vicinity were benign. The victim-survivors protested the contents of the scientific report through their mediated lunch performance, purporting to serve food containing the same chemicals that the report had categorized as having no toxic effects.

The imaginatively staged lunch is not merely a humor-laden critique of the actions of governmental scientific institutions to be dismissed as political satire. Instead, the performance demands attention to survivors' embodied knowledge about the chemicals and the contaminated environment in which they conduct their daily lives. Gas survivors and affiliated middle-class activists fighting for justice in Bhopal are not distrustful of science. In fact, they have often sought the help of organizations such as the Center for Science and Environment (CSE) and Greenpeace to conduct scientific studies to ascertain the extent of the toxic exposure their bodies bear, both for legal purposes and to receive better health care. As I argue, the survivors wanted to shift the debate from the immediate effects of these chemicals (acute toxicity) to their long-term effects (chronic toxicity).

The lunch performance by women survivors was enacted just outside the precincts of the abandoned Union Carbide factory. The mood alternated across a range of emotions: upbeat protest chants, frustration over state government's inaction, laughter about their clever staging of the lunch

performance, and sadness about a dark future. Other activities of the women's group that day included shouting slogans such as "Bhopal's women are flames not flowers" and "The Madhya Pradesh government should stop telling lies." These protests, including the lunch performance, were covered by representatives of media outlets from across the world who jostled for space to have the best angles while capturing the performance. Women survivors have used agitation in the past to draw media attention to the issues they want to highlight.

Women have been the worst affected by the Bhopal disaster, because many of them lost their husbands to the disaster and then faced difficulty finding sustainable employment. After toxic exposure, they faced social ostracization for giving birth to children with congenital abnormalities. Women and children carry the burden of toxins most explicitly on their bodies. When they have asked for relief and compensation, indifferent doctors (mostly male) and unscrupulous politicians have humiliated them (Scandrett, Mukherjee, and the Bhopal Research Team 2011). A gendered reading of this lunch performance through a feminist technoscience lens is necessary to comprehend what dominant systems do not say, what hegemonic discourses of institutions and positivist science eschew (Haraway 1988; Harding 2008), and how marginal and alternative positions can be recovered/championed by *feeling* women's performance. I argue that feeling the sensorium of the performance is critical, as affective dimensions open up a space to attend to the embodied suffering of women survivors.

In this article, I show how the discursive and material dimensions of the women's protest create a heterogeneous public (of varied stakeholders and chemicals) that repudiates authoritative scientific constructions of risk and responsibility. My contribution to scholarly debates about theorizing publics in Science and Technology Studies is to foreground the importance of studying the embodied interactions in such protest performances at the microsocial scale. As the bureaucratic and legal language of the government, corporations, and courts has considerably alienated the gas victim-survivors, focusing only on such discourses is limiting when thinking of publics. The affective and material performance of suffering enacted by gas survivors during the toxic lunch is a form of public action that challenges conceptions of publics that focus on just the textual or vocal. This notion of materiality of publics is encapsulated in the concept of "ontological justice" that I put forward later in the article. In this article, I study the publics of this environmental controversy under the framework of "chemical publics," which is developed in the following section.

Chemical Publics

This is not the first time that gas survivor-activists have tried to highlight the chronic effects of living in chemically infested surroundings. Placing this protest performance within the history of the gas victims' activism of the last twenty-five years helps to ascertain the survivors' impact on the politics of knowledge concerning debates about risk. The issue of chronic toxicity of chemicals in Bhopal has spawned a *chemical public* constituted by involved actors such as government ministers, bureaucrats, scientists, gas survivor-activists, and Dow Chemical officials. Chemicals such as sevin tar and naphthol tar, in their capacity as "things," bound politicians, scientists, and activists together, as these stakeholders debated the potential effects of these toxic substances. Through their toxic effects, these chemicals have created "issues," thus instigating the various stakeholders of the chemical public to act. The chemical public is an "issue-based public" (Dewey 1927)—a public forged by social actors who are compelled to break from their habitual ways when they find themselves affected by a problem beyond their control (Marres 2010).

In the case of Bhopal, this chemical public also includes actors such as transnational activists who are fighting to make corporations responsible and mediated publics who are asked to perceive and judge the material-semiotic performances (as seen on websites, newspapers, or televisions) of the survivor-activists. The political ecology of this lunch performance includes dynamic mediations of this controversy: after all, the toxic lunch performance was staged for the media because the issues needed wider circulation. The lunch performance was not just an isolated campaign against the Indian government and Dow Chemical. Rather, tracing its publics entails tracking the existing and emerging publics of campaigns led by both Dow Chemical and the activist group International Campaign for Justice in Bhopal (ICJB).

The most significant characteristic of the performance was its "front-staging of nonhumans" (Marres 2010), including sevin tar, naphthol tar, and soil and water extracts from the erstwhile pesticide factory's surroundings. Jane Bennett (2010) emphasizes the capacity of matter to disrupt. Noting Jacques Rancière's focus on those actors who are left unaccounted for in a democracy until they demonstrate their disruptive potential, Bennett (2010) asks that things be considered part of publics. Bennett's work is an extension of Bruno Latour's (2005) notion of an "object-oriented democracy" where things (and not just humans) are part of the political realm. Bennett's conceptualization of "ontologically heterogeneous publics"—those

consisting of humans and nonhumans—alters the humanistic notions of the public sphere to be found in the writings of Jurgen Habermas and Hannah Arendt.

Noortje Marres (2007) and Le Dantec and DiSalvo (2013) suggest the importance of studying associations formed between the different members of the public. Because certain people become attached to one another through "dependencies" and "commitments," and because things can entangle human actors around them, these writers emphasize the importance of studying interactions as a public emerges and that a public is best studied relationally.

The relations between gas survivors and Indian government authorities/Dow Chemical remain contentious, but there are dependencies too: the gas survivors need compensation and information about chemicals that have been kept secret from them, Dow Chemical wants the survivors to stop protesting and defaming them but refuses to provide due compensation, and the Indian government wants to ameliorate the concerns of gas survivors but also needs Dow Chemical and other multinationals to invest in India. Beyond these dependencies and commitments, there are other critical associations. The inclusion of chemicals in publics of the Bhopal Gas controversy reveals the dynamic and contingent relationships among the properties of chemicals and the bodies of victims and survivors.

It is these relations that the toxic lunch performance strove to make palpable. I study such relations within the "material-discursive framework" of "agential realism," which contends that subjects and objects are not determined prior to their interaction (Barad 2007). Such a framework refuses to distribute agency or responsibility among different actors in a public before studying their entangled relationships. For Barad (2007), matter cannot be thought of as the end product of discursive acts. Rather, matter plays an active role in discursive practices, and those practices are themselves "material (re)configurings of the world" (p. 151). Positing a strict delineation between materiality and discursivity in discussions of practices and phenomena is therefore misleading (or inadequate), because practices are "material-discursive." Barad's perspective helps me study both the symbolic and the material effects of protest, publicity, and experience without privileging either.

In *A Cyborg Manifesto*, Donna Haraway (1991) emphasized the interconnections among human, nonhuman, culture, and nature. Following Haraway, Barad's framework makes room for both posthuman affirmation and poststructuralist performativity, that is, for both emergent matterings and differentiated identities. For Barad, it is not sufficient to champion the vitality of matter or the ability of nonhumans to make a difference in environmental catastrophes and political calculations. Such a posthumanism needs

to account for the existence of power hierarchies in human identities (as gestured by poststructuralists): class, caste, and gender categories matter in the way people are affected by environmental disasters and their ability to respond. Her work enables me to ground my interpretation of environmentalism at the Union Carbide site in Bhopal. Given Bhopal's geopolitical asymmetries under neoliberal order, there is a pressing need for political, economic, and historical analysis (Philip 2001). Therefore, I resituate the material-discursive interpretation of the Benign Buffet performance within postcolonial studies scholarship and science studies of advocacy and litigational history in Bhopal, particularly the work of Kim Fortun (2001) and Veena Das (1997).

Callon, Lascoumes, and Barthe (2001) have argued that scientists and science policy experts are no longer in a position to envision all possible future scenarios of technoscientific developments because of the radical uncertainties that accompany them, and hence they need to take into account the views of affected communities. Proposing new representational arenas of "hybrid forums," Callon, Lascoumes, and Barthe (2001, 127) argue for greater democratization of science through a move from "delegative democracy" to a "dialogic democracy" where the gap between the "laypersons" and "specialists" and that between "ordinary citizens" and "professional politicians" is reduced. The Bhopal story might dampen their confidence, because uncertainties about chemical toxins have not resulted in increased public intervention. Even as there is so much uncertainty regarding the long-term effects of cyanide poisoning, the Indian Council of Medical Research ended its follow-up studies in Bhopal in 1994, just ten years after the disaster (Jasanoff 2007). In such a postcolonial context marked by geopolitical asymmetries, the Benign Buffet, with its empty plates and nametags for ministers, gestures to the failure of conversation and to the failure of realizing a hybrid forum. The chemical public that I use as a framework to study this recent Bhopal controversy borrows the spirit of dialogic democracy from hybrid forums, but the on-ground realities of postcolonial democracies operating within neoliberal globalization compel me to take into account cultural aspects and their attendant hierarchies of caste, class, gender, and region.

To summarize, the chemical public of this environmental controversy has four features:[1]

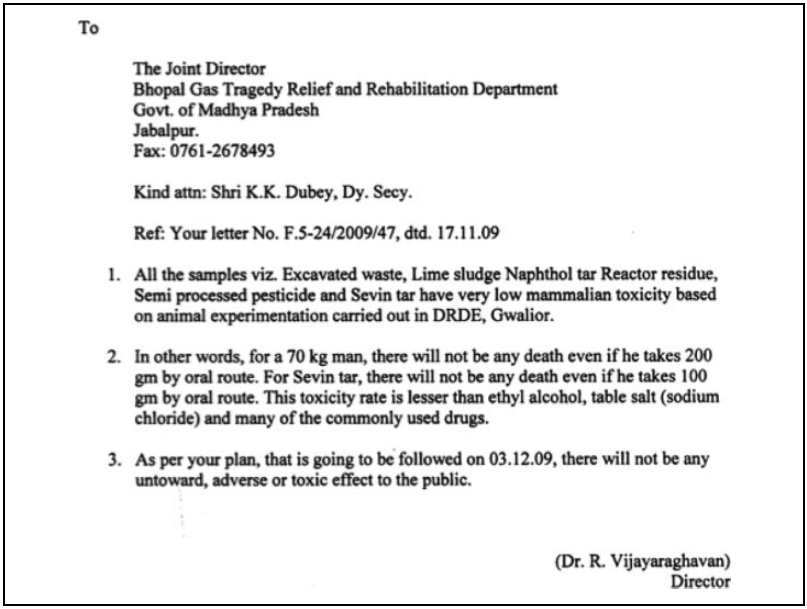
(a) it is an issue-based public,
(b) it is ontologically heterogeneous in the sense that it includes both human and nonhuman actors,

(c) the public is woven together in the fabric of mediation and these media help stakeholders communicate and enable issues to scale across different levels of the local and the global, and
(d) "public" is recognized as a culturally dense concept and attending to hierarchical relationships between stakeholders in a postcolonial context is critical.

In the following section, I provide more contextual information about the disaster and its aftermath, entangled as it is with several complex and interrelated economic, legal, and political issues. I then describe the staged lunch performance in terms of embodied knowledge and the representation of risk. Finally, I discuss the heterogeneous publics of the gas controversy and the agitation campaigns, and the publics rhetorically addressed by mediated performances of survivors and activists.

Disaster's Aftermath: Event, Chronicity, and a Benign Buffet

Many of the early controversies following the 1984 gas disaster in Bhopal centered on holding Union Carbide and the government of India accountable for their decision to construct the plant in the center of the city, thereby aggravating the risk of affecting a dense population of inhabitants in the plant's vicinity. Dembo, Morehouse, and Wykle (1990, 87-91) point out that the design of the Bhopal plant and its operational policies were in keeping with the double standard often applied by transnational corporations in their Third World outposts, where environmental, worker, and community safety issues are given less significance than they would be at home. In a similar vein, Mathur and Morehouse (2002) argue that the Indian state's unwillingness to hold Union Carbide accountable for the disaster was tied to the government's interests in encouraging foreign private investment. The legal and medical issues have become more complicated since Union Carbide became a wholly owned subsidiary of Dow Chemical in 2001. Dow refused to own any liability for damages caused by Union Carbide India Limited's (UCIL) pesticide factory in Bhopal, thus absolving itself of any responsibility for the gas tragedy. In the continuing aftermath of the disaster, mainstream accounts privilege the role of experts over the work of women's organizations striving for sustainable health care for the victim-survivors (Fortun 2001). More recently, both disaster survivors' experiences of living close to the factory and scientific tests have revealed that part of the contamination of the area around the plant has to do with the



To

The Joint Director
Bhopal Gas Tragedy Relief and Rehabilitation Department
Govt. of Madhya Pradesh
Jabalpur.
Fax: 0761-2678493

Kind attn: Shri K.K. Dubey, Dy. Secy.

Ref: Your letter No. F.5-24/2009/47, dtd. 17.11.09

1. All the samples viz. Excavated waste, Lime sludge Naphthol tar Reactor residue, Semi processed pesticide and Sevin tar have very low mammalian toxicity based on animal experimentation carried out in DRDE, Gwalior.

2. In other words, for a 70 kg man, there will not be any death even if he takes 200 gm by oral route. For Sevin tar, there will not be any death even if he takes 100 gm by oral route. This toxicity rate is lesser than ethyl alcohol, table salt (sodium chloride) and many of the commonly used drugs.

3. As per your plan, that is going to be followed on 03.12.09, there will not be any untoward, adverse or toxic effect to the public.

(Dr. R. Vijayaraghavan)
Director

Figure 2. Toxic test results. *Source:* India Environmental Portal.

indiscriminate dumping of industrial wastes by UCIL authorities dating back to 1972.[2]

Fresh controversy erupted in November 2009 when Bhopal Gas Tragedy Relief and Rehabilitation Minister Babulal Gaur announced that the gates of UCIL's factory would open to visitors. This eyebrow-raising pronouncement, made close to the disaster's twenty-fifth anniversary, was seen as an attempt to "bury the Bhopal Gas disaster along with its pending liabilities" and to "generate public opinion in favor of the theory that the factory premises were not contaminated anymore" (Mahim Pratap Singh 2010). Babulal Gaur had made this decision based on the aforementioned report from the DRDE and NEERI. In a letter reporting the findings, Dr. R. Vijayaraghavan, director of DRDE, had written that all samples of wastes like lime sludge and naphthol had "very low mammalian toxicity based on animal experimentation carried out in DRDE" (see Figure 2).

Instead of responding to the government's ostensibly scientifically based decision by posing scientific counterevidence, gas survivors and grassroots activists printed out lunch invitations to key ministers, scientists, and bureaucrats instrumental in carrying out the decision, and staged a sit-in

Figure 3. Benign buffet invitation. Courtesy of International Campaign for Justice in Bhopal.

outside the factory. Rachna Dhingra of the Bhopal Group of Information and Action (BGIA) recounted the consensus to stage this protest: "We said we cannot respond with scientific papers, we cannot respond by disgust, so we said we will just do this—Jhooth Bole Kauwa Kaate" (interview excerpt, Bhopal, August 21, 2010). *Jhooth Bole Kauwa Kaate*, an old Hindi proverb meaning "the crow bites the liar," thus became the rallying call behind the fascinating idea of the lunch invitations and sit-in.

The report stated that the proportion of naphthol tar at the site was as harmless as table salt, so the BGIA activists reasoned that the lunch event could be aptly titled Benign Buffet. Drawing up the lunch menu, the survivors creatively appropriated and renamed the chemical wastes that DRDE and NEERI referred to in their letter. Naphthol tar became "naphthol tar fondue," lime sludge appeared in the avatar of "lime sludge mousse," and the culinary concoctions of "reactor residue quiche" and "sevin tar soufflé" found their place on the menu (see Figure 3).

The gas survivor protesters designated DRDE director, R. Vijayaraghavan, and NEERI head, Tapan Chakravarty, as the event's "chefs" because the chemical wastes, extracted and measured by them, were now gourmet cuisine. The lunch spread consisted of paper plates laid out for the

dignitaries; adjacent to each plate was a label/placard printed with the name of the invited minister or bureaucrat in bold, capital letters. Invitees included the chief minister of the state of Madhya Pradesh, Shiv Raj Singh Chauhan, and Babulal Gaur (refer to Figure 1). The invited ministers and bureaucrats themselves did not appear, but their placards highlighted their absence. Around their plates sat a group of women survivors waiting to serve them. On the plates, there was no food; instead, there was contaminated soil from the survivors' surroundings. The hosts also provided glasses of water taken from the slums, the cleanup of which the women survivors have repeatedly demanded.

At the center of the lunch spread, one can spot a crow with its beak pointed toward Babulal Gaur, suggesting that he should stop lying or the crow will bite him, as the proverb states. Dhingra explained that Gaur had recently been to France, and after coming back promised to convert Bhopal into Paris; the French cuisines were a play on his unfulfilled promise. Gaur, the Bhopal Gas Tragedy Relief and Rehabilitation Minister at the time of the protest performance, had a long history of not keeping his promises: in 2005, 300 women from neighborhoods whose drinking water is contaminated by chemicals tied *rakhis* on Gaur's wrist and Gaur assured them a clean water supply. A *rakhi* is tied by a sister on her brother's wrist and the brother promises to protect his sisters in return, but Gaur did not keep his brotherly promise. Rashida Bee recalled this story and then went on to explain the purpose of the lunch:

> We wanted to serve these chemicals to all ministers because the Chief Minister and the Gas Tragedy Relief Minister are unable to understand that in how many persons' bodies this poison will go, so they can come and eat the chemicals, we will serve them … we waited for them … the media waited for a long time in anticipation that today Babulal Gaur will come and open the gates to the Union Carbide factory, but nobody came. (interview excerpt, August 21, 2010, Chingari Trust office, Bhopal, author's translation)

The presence of the crow, with its connotation of biting liars, suggests the mistrust survivors have in the tests conducted by NEERI and DRDE. These tests seem to have been undertaken to serve the interests of multinational corporations conniving with national and state government bodies to deny the survivors their due compensation and the dignity of an uncontaminated life. Children of Bhopal walked from Bhopal to Delhi in 2006 to present their demands to Manmohan Singh, the Indian prime minister. Singh then promised to provide them with clean drinking water but then failed to fulfill

that promise. In 2008, as part of protests against Singh, the *Jhooth Bole Kauwa Kate* slogan was used.

The toxic lunch performance staged by gas survivors is innovative but not unique. There have been instances of protests where toxic polluters or regulators have been asked or invited to eat contaminated food. In 1990, the antinuclear activist Noam Buske collected berries along the shoreline of the Hanford Nuclear Reservation in northwest United States and then sent the atomic mulberry jam to the head of the Department of Energy and the governor of Washington (Foster 2006, 45). The Canadian film *Homo Toxicus* (2008, Carole Poliquin) has a "Toxique Buffet" scene where we see delicious food on the table, but when eager and curious onlookers ask questions, they are told that the pork contains antibiotics and the salmon has mercury.[3] The Benign Buffet almost reverses the logic of Toxique Buffet because in it the toxic wastes are given titles of French delicacies. The Benign Buffet could have been inspired by protest tactics circulating internationally in left-activist formations but that does not take anything away from its effective deployment in a particular situation. Furthermore, when I say that gas survivors or the ICJB devised the performance, I do not want to collapse the distinctions between the many different groups of activists among the survivors or ICJB, some of whom are middle class and have come from outside Bhopal, others who belong to working women's organizations in Bhopal, and still others who consist of children who agitate against Dow.

At the lunch performance, when the survivors pointed out the life-threatening dangers of toxic substances, they were talking about the risks of prolonged exposure to these wastes rather than one-time ingestion of naphthol tar or one-time contact with lime sludge. In conducting its tests, the government had been mistaken about the problem of the survivors. They had been subjected to long-term exposure in low doses rather than the short-term exposure in high doses; the government confused chronic toxicity with acute toxicity. CSE, an independent public interest research and advocacy organization, carried out its own tests and found the samples to have high chronic toxicity.[4] The gas survivor-activists may not speak in the language of science in differentiating between forms of toxicity, but through their lunch invitation, they expressed their forced intimacy with the chemicals that surround them and persist in their bodies. CSE's intervention was crucial since it gave scientific credibility to the gas survivors' longtime claims and brought media attention to the continuing disaster in Bhopal. In early December 2009, Sunita Narain appeared on several television

channels, including New Delhi Television Channel, reiterating that the Bhopal survivors' claims of chronic toxicity needed to be addressed.[5]

Perceiving Risks, Feeling Sensations

In the invitation to the Benign Buffet, a playful shift in discursive signifiers occurs, as toxic chemicals transform into culinary dishes. Beyond these semiotic twists, the theatricality of the toxic lunch performance by the disaster survivors features the "frontstaging" of things, the hard *matter* of contaminated soil and water extracted from the polluted site. It is the effects of these chemicals, the perceived risks from them in the present and future, which have necessitated scientific tests and activist protests.

It is critical to note that neither the bodies of survivors nor the chemical toxins by themselves will determine the course of events in the aftermath of the disaster. Instead, one needs to focus on the complex "intra-actions" of the two elements. Barad (2007) differentiates between intra-action and "interaction": "'intra-action' signifies the mutual constitution of entangled agencies . . . in contrast to the usual 'interaction,' which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-actions" (p. 33). Intra-actions of the chemically laden bodies in Bhopal would account for the fact that since the gas leak, the toxic chemicals released have not remained static. They have mutated with their exposure to soil and weather and in intra-actions with the bodies of disaster survivors and their children and remain capable of causing further illnesses. Besides leaving survivors with chronic illnesses, the toxins have caused congenital defects in newborn babies.

The government report and the lunch invitation are competing claims regarding the supposed risks of chemical substances to the survivors' bodies. The difference between the representations of these two claims lies in the way they construe the relationship between the gas survivors and the chemicals. From their audience, the representations elicit two different judgments of risks from chemicals, one involving determinate judgment and the other involving aesthetic judgment (Lash 2000). In his work on risk cultures, Scott Lash (2000) borrows the concept of aesthetic judgment from Kant's "aesthetic judgments of taste," which Kant distinguishes from "determinate judgments." As Lash explains, while "determinate judgments involve the subsumption of events (like an AIDS-related death or a nuclear power station explosion) under the logical categories of understanding," reflexive or aesthetic judgments "take place not through the understanding,

but through the imagination, and most immediately through sensation" (p. 53).

The Bhopal survivor-activists' lunch invitation and sit-in were representations of perceived risk in which performers chose to highlight their experientially felt relationship with toxic chemicals rather than presenting the risks in the mathematical logic of probabilities. The performance thereby invited aesthetic judgment from the protest's spectators. It also called for ministers and scientists to include the experience of victims at risk in policy making—to go beyond the narrow realm of determinate judgments in framing risk policy related to the Union Carbide plant.

Further elaborating on the "judgment of risk," Lash (2000, 57) identifies cases where an event or object is so powerful that we are unable to make sense of it through imagination. Such events trigger sublime judgments, which are experienced through "sensation, pure perception." Brian Massumi (2002, 97) posits that this tactile, immediate, and sensory quality of sensation is prior to analytically ordered action: sensation eludes signification, appealing to "unmediated experience." Massumi's theorization of affect unpacks the layers of feeling that a performance or an image of a performance can evoke. Discerning these different layers of feeling is important because spectators make risk judgments based on their particular level of perception.

The experientially felt intra-actions of victim-survivor's bodies and chemical toxins operate at the level of sensation. The lunch performance gives us an idea of the (unwanted) intimacy between the survivors and chemicals: we are invited to make an aesthetic judgment, but it remains open to interpretation—whether by seeing a photograph or video of the protest we are able to make a sublime judgment. The rawness of sensation that the victim-survivors feel in their bodies and that shapes their sublime judgment of the risks the chemicals present cannot be equated with the spectators' experience of the performance. Even for those who witnessed the performance just outside the Union Carbide factory premises, one would have to qualify that what they saw was the execution of a strategy that was well planned and coded. The protesters' textual codes constructed the risks and, in doing so, identified the people to be blamed for them: government bureaucrats and ministers (the lunch invitees) and the scientists and scientific institutions with whom they had aligned (the lunch's designated chefs). Nonetheless, the toxic lunch protest was able to convey to the spectators that something more was at play: a sublime judgment of risks as perceived by victim-survivors, their perceptions emerging from the sensations they felt and continue to feel as part of intra-actions involving their

Figure 4. BMA ad: Adil. Courtesy of International Campaign for Justice in Bhopal.

bodies, and toxic substances in the soil and water around the abandoned Carbide plant. Partial hints about the material sensations emerging from such intra-actions are conveyed in the nature of immediate action demanded from ministers: the invitation to ingest contaminated soil and water in order to viscerally feel what it is like to consume poison. The spectators were encouraged to acknowledge the existence of a lived relation between the survivors and their contaminated environment. This acknowledgment is a movement beyond the political meanings of risk accountability conveyed through the representational register.

In a Bhopal Medical Appeal (BMA) advertisement to raise funds for the Sambhavna clinic where children affected by toxicity are treated, Indra Sinha's tagline compares the material form of bent feet to golf sticks to present a dark irony: the legs and feet of Adil, the child pictured, are only good for crawling, not walking (see Figure 4). The pair of slippers photographed next to his feet is useless to him. The image and its verbal message ask for an affective investment from consumers and shift the discourse of risk from rational analysis to vulnerable bodies. The narrative that follows is a story of chronic toxicity: Adil's mother escaped the disaster without any scars, but then gave birth to Adil. She had been drinking water from the wells in the region, where groundwater sources had been polluted by waste from the Carbide factory. The aesthetics of representing such risks, both at the Benign Buffet and in the BMA ads, depend upon the bodies of survivors for their affective charge.

So far, I have attended closely to the connection between the materiality of experiences conveyed by survivors through the lunch performance and risk judgments made by witnesses/spectators of the (mediatized) performance. In the next section, I shift to a discussion of the stakeholders or actors who have gathered together in the face of various issues that controversies around Bhopal have raised. Such an account will help us better grasp the toxic lunch performance and explore questions such as who are the intended addressees of these performances? What things are entangled with issues raised by activists? What specific actions are the survivor-activists demanding?

Heterogeneous Publics of Performances and Campaigns

The specific controversy in Bhopal erupted because of the government's publicized plan to open up the Carbide plant as a memorial site. This proposed plan in turn brought back the issue of cleaning up the plant and assessing the amount of damage caused to the soil and water quality in the surrounding area. This issue was not new, but highlighting it allowed activist groups to come together and focus attention on the prevalent conditions of chronic toxicity. Many of the activist organizations grouped under the International Campaign for Justice in Bhopal—among them BGIA, *Bhopal Gas Peedit Mahila Purush Sangharsh Morcha* (Bhopal Gas Affected Working Women–Men's Union), and Children against Dow Carbide—international nongovernmental organizations like Greenpeace and politicians like Babulal Gaur have in the past negotiated among each other on similar issues.

ICJB includes Students for Bhopal (SFB) and BMA. SFB is based in the United States and draws its volunteers and constituents from university students. Housed in Britain, BMA is concerned with raising money and maintaining a free clinic (called *Sambhavna Clinic* in Bhopal) for gas victims. In the past, Bhopal-based groups like BGIA have successfully coordinated with SFB and BMA to simultaneously launch protest campaigns against Dow Chemical in three different continents. The public that was sparked into being because of this particular controversy was thus not a new political formation, but one with roots in a relay of related controversies and issues preceding this moment.

Rashida Bee told me about some of these earlier interactions between the constituents of the public in demonstrations and protest performances in which ICJB participated:

Figure 5. B'eau Pal Water. Courtesy of International Campaign for Justice in Bhopal.

> In 2002, with 500 Jhadoos (broomsticks), and soil and water from Bhopal, we went to Dow's Mumbai office telling them that this soil and water are poisonous, and it is from their chemicals. We told them that if you do not clean them, then these 500 brooms are giving you the message that your business will be swept away. We won't allow you to do business in any part of the world. For the 10 minutes that the Dow officials listened to us, they slapped a 5 Lakh Rupees (500,000 rupees) fine on us, saying that the time they gave us cost them that much. (interview excerpt, August 21, 2010, Chingari Trust office, Bhopal, author's translation from Hindi)

Since then, ICJB activists have made it a point to go to Dow's offices on various continents—Africa, Europe, and North America—with broomsticks and soil and water from Bhopal. There have been photo-ops and videos of them presenting brooms and water to Dow officials. In the *B'eau Pal Water—Bhopal Water Prank* video (see Figures 5 and 6), for instance, activists dressed in biohazard suits put the unclean and unsafe water from the gas site in Bhopal into fashionably packaged mineral water bottles labeled "B'eau Pal Water" to present it to the Dow officials at their headquarters in London.[6]

The "B'eau Pal mineral water," another linguistic play on "Bhopal water," overtly uses Dow's red, diamond-shaped logo and within it inscribes how the water has been bottled from a hand pump at Atal Ayub Nagar, Bhopal. By anchoring the "floating chain of signifieds" (Barthes 1977, 39) like coded images (having connotative meanings) with clear linguistic messages (source of the bottled water being stated) and noncoded

Figure 6. Activists in biohazard suits. Courtesy of International Campaign for Justice in Bhopal.

iconic messages (deployment of Dow's logo), Dow Chemical becomes associated with (implicated in generating) contaminated water by these performances (see Figure 6). The survivor-activists are responding to Dow's (Union Carbide's) contamination of their lives, bodies, livelihoods, and environment through an attack in the symbolic domain by contaminating strategically Dow's own symbols and signs. These acts of semiotic contamination go a long way in circulating discourses of corporate accountability through media outlets—both mainstream media and the websites of activist organizations. Such performances help to constitute and maintain publics consisting of individuals and organizations whose interest in Bhopal comes from their involvement in environmental advocacy—from their concern for the environmental damage caused by the multinational chemical manufacturing corporations.[7]

As much as these performances are semiotically charged, they are material in many significant ways. As performances, they involve concrete actions, appropriating not only corporate logos but also particular corporate spaces: Dow Chemical's offices in the case of the B'eau Pal water prank video and the abandoned Union Carbide plant for the toxic lunch event. Such occupations of material public spaces enable these performances to become successful media events because, as political geographer Simon Springer (2011, 538) explains, one cannot make a social movement visible through media channels "without a political claim first being enacted in public space." I found an echo of Springer's theorizations in ICJB/BGIA

spokesperson Rachna Dhingra's emphasis on the pragmatic element involved in the choice of protest sites in terms of their ability to attract attention, to get the principal actors and administrators to pay attention, and to garner mainstream media coverage.

Even more critically, the activist performances are material because they foreground chemicals and soil extracts. In other words, these performances result in media publicity for nonhumans, which always seem to be a part of the images circulated and actions taken. This suggests the indispensability of these chemicals when thinking of political collectives in issue-based controversies, as I argue below.

The controversy I have been discussing occurred because the government and the scientists allied with it disregarded the chronic toxicity of chemical elements and compounds released by the 1984 leak. The activists and the independent research scientists at CSE who worked in close association with the survivors immediately pointed out this oversight. The CSE report details the effects of chlorinated benzene compounds, aldicarb, lead, chromium, mercury, and arsenic.[8] The report finds evidence of significant mental and physical damage to human beings and animals from chronic exposure to these chemicals. The chemical substances are everywhere—in the soil and water of Bhopal, in Indian government–certified DRDE and NEERI reports, and in the mineral water spoof campaign and lunch invitation. They are so much a part of official scientific legal documents and activists' performances because they are an integral part of public deliberation on Bhopal. These chemicals are not mere objects of political deliberation or governing decisions.

Braun and Whatmore (2010, xxii) contend that technological objects "cannot be reduced to things on which decisions are made in the political realm because they are part and parcel of that realm from the outset." Technological objects temporalize "things are not just material and meaningful; they are eventful" (Braun and Whatmore 2010, xxi). The effects of chemicals released during the Bhopal gas leak, and of waste dumped when the plant was operational, remain *unknown*. Uncertainty looms about which victim bodies are more or less resistant to the chemicals and how one measures these bodies' exposure to them. The effect of the chemicals on the bodies of survivors and the next generation needs to be continuously monitored many years into the future. The chemicals render the future in Bhopal uncertain and precarious. They add their differential tendencies and indeterminacies to any existing and emerging political alliances and social associations in the sociotechnical controversies that unfold: according to the Bhopali survivors, they need to be cleaned up; according to the Dow

officials, the corporation is not responsible for them; according to the government, they seem to be under control.

Chemical matter is pervasive in documents, demonstrations, and alternative media because it is very much a part of the lived, ontological existence of Bhopali gas survivors—so much so that any political intentions to resolve issues and ameliorate controversies require an engagement with them at many levels. Bennett presciently captures these linkages when she notes: "human intentionality can be agentic only if accompanied by a vast entourage of nonhumans." The notion of the public would hence have to shift from that of a human collective to that of an "(ontologically heterogeneous) 'public' coalescing around a problem" (Bennett 2010, 108).

The discursive and the material strands in my argument come together if we understand these activist performances as geared toward publicizing not only the Bhopalis' demands and claims but also spreading awareness of their living conditions—their inevitable living-in-relation-with contaminated matter. Along with a "material-discursive" interpretation of these protests involving the publicity and performativity of chemical matter, Barad's (2007) agential realism provides a poststructuralist framework through which to account for the role of sociocultural identities. The explicit articulation of the concerns of people with differing identities is necessary in postcolonial contexts where class, caste, gender, religion, and region mark individual and social identities and material practices (Harding 2008). The condition of gas-affected survivors today has much to do with their marginalized identities with respect to the Indian state and multinational corporations. The framework of agential realism and chemical publics therefore has to be reshaped by the impact of political economy and litigational history in Bhopal.

The authoritative certainty about numbers, which is present in the scientific document criticized by the Benign Buffet, has been there in an array of legal and bureaucratic documents received by the gas survivors. Kim Fortun (2001) explains that while in the courts the emphasis has been on immediate relief and monetary compensation, the largest organization of gas victims (in 2001), the Bhopal Gas Affected Working Women's Union, has asked for attention to "continuing liability" and sustained efforts to provide long-term employment to women survivors. The Benign Buffet's emphasis on chronic toxicity versus acute toxicity must be seen as part of this stress on continuing liability that has historically been part of the advocacy of women survivors.

The gas victims of Bhopal could not directly file their cases against Union Carbide in the US courts and were instead represented by the government of India against Union Carbide in an Indian court. The Indian

government thoroughly failed to ensure a fair trial. In her astute reading of the court cases that led to the meager monetary compensation of US$470 million given by Union Carbide in 1989 and its subsequent upholding in the 1991 court decision, Veena Das (1997) argues that the gas victims were unable to transform their suffering and horror into legal scientific forms and in the courts. Rather, it was the ''sufferers'' who were declared ''incompetent'' and ''irresponsible'' not the multinational or the government. That said, public trials do not take place in courts only; they also take place in public spaces in the glare of the media spotlight, and it is here where the gas survivors have been especially innovative. While they have not transformed their subjective experiences of suffering into numbers, categories, and point systems, through the embodied Benign Buffet performance, they have connected these experiences to those toxic chemicals in their lives.

Das's (1997, 143) powerful semiotic reading of the court texts finds the gas victims to be denied their suffering by ''talking about suffering in such a way that it came to be constituted purely as something verbal.'' My own materialist-discursive interpretation of the Benign Buffet, attentive to the micropolitics of sensation, suggests that outside the courts, deploying more than language, the survivors have been able to convey their suffering as part of their embodied relationship with toxins.

So far, I have sketched the material-discursive configurations of a chemical public consisting of jointly implicated actors facing an adverse situation instigated by chemicals' indeterminate properties. Actors in such a chemical public are addressed through mediated performances, and tracking the shifting dynamics of such a public is crucial to comprehending the nuanced mechanisms of rhetorical address.

Taking up the notion of mediated publics, Michael Warner (2002) agrees with Nancy Fraser, among others, that the circulation of discourse matters for a public's constitution, but he adds that a public's discourse must be organized in such a way as to address strangers. Beyond the known actors, how are other audiences included in the chemical public through the campaigns of ICJB? The French names of dishes on the toxic lunch menu might pique a stranger's interest. The photographs of the lunch performance connect spectators to on-the-ground realities. For a transnational audience or an urban Indian middle-class spectator, the performance leaves a mark of authenticity through its emphasis on the intra-actions of humans and nonhumans forming the ecology of relationships near the plant site. Moreover, local campaigns and international campaigns feed off one other. In August 2010, activists around the United States and Canada used the same slogan of *Jhooth Bole Kauwa Kate* (as used in the toxic lunch performance) when

they sent origami crows to Indian consulates and to the Indian embassy in Washington, DC, to protest the Indian prime minister's failure to fulfill the promise of rehabilitating gas survivors.

Warner observes that the success of a public depends on strangers who are willing to pay attention to the public's discourse and to participate in circulating that discourse. This enables Warner to distinguish publics from other communities, which often recruit strangers based on identities of class, creed, nation, or religion. As Warner (2002, 56) notes, "a public ... unites strangers through participation alone." "Participation," however, is difficult to pin down: it can mean witnessing a protest, surfing through images of protests, taking part in a protest, or sending an origami crow to the Indian consulate. Or, as in one campaign geared toward making strangers' actions meaningful for the cause of Bhopal-based survivors, participation can mean refusing to invest in Dow Chemical's shares.

In the "Dump Your Dow" campaign, ICJB activists have attempted to associate the Dow brand with several everyday consumer brands such as Dove, Nivea, Old Spice, and Pantene, each of whose products contain chemicals produced in Dow factories. The campaign seeks to connect the lifestyle choices made by people in consuming soap, deodorant, and shampoo to Dow Chemical and its many cases of environmental contamination. Here the target group for such representations and campaigns are people interested in environmental politics and global justice, people who do not necessarily live in Bhopal or India but still become part of geographically centered advocacy. One person's lifestyle preferences become linked to another person's life chances, creating a "stranger sociability" (Warner 2002) that is key to the formation of publics. Dump your Dow campaign also suggests that acts of symbolic and material resistance against global corporate capital cannot eschew negotiating with the logics of capital (here: consumerist lifestyles), something that Fortun (2001) and Spiegel (2013) have repeatedly stressed in their analysis of social movement campaigns mobilized for the cause of justice for Bhopal gas survivors.

Ontological Justice

Scholars within the subfields of postcolonial science and technology studies and alternative sciences have repeatedly called for a recognition of the inalienable right of different forms of knowledge to coexist—for epistemic justice or "cognitive justice" (Visvanathan 2009)—and for the acknowledgment of different "practical human-cultural ways of being (ontologies)" (Leach, Scoones, and Wynne 2007, 8). I have described and interpreted the mediated and unmediated performances of survivor-activists in the

language of affect and sensation and in the vocabulary of the ontological heterogeneity of chemical publics and the publicity of matter, because such an approach opens up the possibility of comprehending more carefully the *life worlds of these survivors*, a glimpse of or feel for which the lunch performance offered. An exclusively semiotic approach would represent the performance as reframing the debate, which would not call attention to the problematic of ontological justice.

As a performance of ontologies lived by the survivors, the lunch made decipherable the "slow violence" (Nixon 2011) perpetrated by chronic toxins—a form of violence that is difficult to represent because it is bereft of the sensational spectacle that mainstream media tends to pursue. The lunch performance was lively and colorful enough to grab media attention, but beyond that it showed the work that culture can do toward interpreting the meanings of a disaster. Some of these meanings, I have argued, can be understood—or, better still, intuitively grasped—by speculating about the micropolitics of sensation.

The twenty-fifth anniversary Bhopal protests highlighted that governmental and scientific bodies failed to create a common ground where a "multiplicity of interests and a plurality of beliefs" (Harding 2008) could coexist, as they were unable to recognize that the victims were complaining of chronic toxicity and not acute toxicity. The nagging problem is that to begin the search for common worlds along with the survivors, Dow Chemical and the Indian government have to concede their epistemic uncertainties about the slow mutations of chemicals. An admission of *not being in control* would be antithetical to the technopolitics that lays the foundation for neoliberal capitalism. Timothy Mitchell (2002, 43) finds "technopolitics" to be an alloy of humans and nonhumans in which the "the intentional or the human is always somewhat overrun by the unintended" and yet the amalgam is packaged or represented in a way so that "the realm of intentions and ideas seems to come first and to control and organize the non-human."

Dow Chemical's public relations campaigns are illustrative of such technopolitics. Its "Human Element" campaign video, released in June 2006, moves away from the poisonous chemicals with which it works to beautiful chemistry and nature—scenes from nature are often juxtaposed and intercut with shots of test tubes, plants growing in terrariums, and elements of the periodic table. Bhopal isn't in the ad, as it celebrates the control that scientists working in Dow's laboratories have over matter.[9] The Benign Buffet can be seen as a response in local idiom that lays bare the fallacy of control. It is a culture's way of mediating the experience of living amid radical uncertainties, precarious ecologies, and matter's mattering.

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Notes

1. Jennifer Spiegel (2013) has written evocatively about the efficacy of protest performances in rendering visible the sociomaterial experiences of water contamination in Bhopal. She calls for us to pay attention to the connections forged between humans as substances including water and other chemicals flow across them at local and global scales. Like Spiegel, I am interested in understanding the politics of visibility and embodiment that galvanize protest performances. Unlike Spiegel, I do not approach these questions through the language of transcorporeal and planetary flows, but within the framework of relations between human and nonhuman actors who are part of an ontologically heterogeneous and dynamically mediated chemical public. Media technologies transform publics by affording new spaces of sociality and novel forms of interaction across scales (Couldry and McCarthy 2004). Focusing on the mediation of an environmental controversy helps me analyze how the protest performances reach a wider audience outside Bhopal.
2. The consequences of a problematic waste disposal system adopted by the Union Carbide are depicted in the documentary Bhopali (2011, director Max Carlson).
3. Watch the documentary here: https://www.youtube.com/watch?v=M3w8bgaQpSE (accessed December 06, 2015).
4. Sunita Narain, director of Center for Science and Environment (CSE), expostulated, ''Chronic toxicity implies that continuous exposure, even in small amounts, can lead to the poisoning of our bodies.'' Narain cited in ''Disaster Tourism'' article in Frontline.

5. Refer to NDTV news report, 25 years on Bhopal Still Contaminated: http://www.ndtv.com/video/player/news/25-years-on-bhopal-still- contaminated/116446 (accessed February 3, 2012).
6. B'eau Pal Water YouTube video posted here: http://www.youtube.com/watch?v=JYskpDpNM80 (accessed December 08, 2012). B'eau Pal water was not groundwater from Bhopal, but from a faucet in London. The semiotic-material displacement is a tactical play emphasizing the material volatility and vitality of certain signs which point/gesture toward specific precarious grounds.
7. This could include victims of other chemical, industrial, and nuclear disasters. Rashida Bee mentioned her solidarity with Chernobyl victims and the Japanese people suffering from Minamata disease caused by mercury poisoning.
8. The CSE report is available here: http://www.cseindia.org/userfiles/Bhopal%20Report%20Final-3.pdf (accessed May 07, 2012).
9. Dow "Human Element" video released in June 20, 2006: http://www.youtube.com/watch?v=i3byt7xMSCA&feature=related (accessed February 14, 2014).

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