Original Article

Unreliable eating: Patterns of food adulteration in urban India

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Abstract This article is about food safety and food adulteration in urban India. Situated at the relational interface of foods and their contaminants, it considers ways of thinking and acting at the porous boundaries between bodies and environments. The article details how people attempt to detect where food and its adulteration begins and ends, through ethnographic reflection on several events of adulteration in Mumbai and a context of changing food safety policies in India. The article develops the concept of reliability as a lens onto food politics different than one delimited strictly in terms of consumerism. Reliability refracts the politics of difference at work in times of toxic food environments, in contemporary India and elsewhere, wherein tensions between poison and nourishment take on renewed charges. This framework recasts a choice-focused approach to thinking about food safety by centralizing how living with harm – rather than ridding the world of it, element by element – is what is at stake.

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Introduction

“Everything is wrapped in plastic now”, Mary said. Mary was my research assistant in Mumbai, and we often exchanged recipes as part of our daily routine during research downtime. On this particular afternoon, she extolled the benefits of nonstick pans but quickly cautioned me against using them too much because the nonstick plastic coating could leach into food. “Everyone is getting cancer here”, she said. “The chemicals go into food. You buy hot food from a vendor? You buy fruits and vegetables from the market? They wrap the food in plastic bags. Go home immediately and take it out; otherwise, the plastic will get into the food”. And from the food, plastic sluiced into bodies and could trigger any number of somatic conditions connected to food adulteration. Safety regulations might be on paper somewhere, but who could trust them? Yet while Mary detailed plastic’s toxicity, she also acknowledged its indispensability. Like many women living in her predominantly Catholic seaside neighborhood of fishers in Mumbai, Mary occasionally made small foods as a side business. She wrapped her marzipan Easter eggs, beloved by the neighborhood, in plastic cling-film.

How else to signal that they were the real thing, cared for and unadulterated? How else to be sure that an alimentary pleasure and a source of income had the right ingredients in the right arrangement? Plastic thus materialized a double bind of danger and trust upon bodies and foods, effecting safety and pleasure along with morbidity and mortality. As Mary explained, one had to exert effort to edge food–plastic relations into safer corners of everyday food worlds. Doing so entailed a complex and interactive system of reliance upon persons, materials, laws, companies and the state.

This article discusses how food adulteration takes shape in Mumbai alongside national food safety regulations, and how people work out ways to assess, accept and refuse food in this context. My aim is to describe what I will call the reliability of food. Reliability is a concept I develop based on ethnographic research in order to describe and analyze the pervasive conditions of food adulteration and their embodied and discursive implications. I argue that reliability is a meaningful form of difference that materializes at the interface between food and bodies. Abiding food safety policies in India and elsewhere prescribe a purer, cleaner, safer food supply by ridding the world of contaminants, one by one. While I am certainly sympathetic to this approach, it does not fully encompass the ways that people live with and embody harm. This politics of purging constricts ways of understanding how people live with adulterated food. Because bodies and environments are porous to each other, people do not necessarily live to eat and eat to live in only terms of specific elements. Living with patterns of reliable and unreliable foods, rather than weeding out constitutive elements, is what is at stake in food safety and merits deeper attention.

I develop this argument by looking closely at instances of food adulteration, especially those that materialize around plastic and milk in Mumbai. These events might be called controversies or even conspiracies of food safety, but I use reliability to avoid casting the world into the knowing and the duped – that is, between people who have tightened or loosened their grip on knowledge (Pigg, 1996; Nelson, 2001). In a setting such as Mumbai where food adulteration is the rule and not the exception, knowing about the problem is already a done deal (Mazzarella, 2006; Smith, 2007; Gupta, 2012). The meaningful questions at hand are, rather, who and what make for reliable food. The implications of a better understanding of reliability are a better understanding of food politics. Reliability shows how the stakes of food safety stretch beyond a consumer model of individuated choice, and illustrate the ways that people acknowledge, accommodate and protest a food supply that is thoroughly contaminated.

I use this case study to elaborate reliability in terms of its double-bind between modes of elemental thinking and patterned thinking. An exchange with my neighbor Suresh usefully introduces this tension. “You should *expect* your *dudhwallah* [milkman] to dilute your milk”, Suresh reminded me when I pointed out the neighborhood storefront where mass quantities of milk were doled out into smaller bags for daily delivery. I was naive *not* to anticipate that the man behind the counter would stealthily puncture my plastic pouch of milk. I was better off going to the store for a branded version of milk – more expensive, but more reliable. Misplaced reliance on clean food coming to me or anyone else was poor anticipatory form. Suresh pointed out that I was too focused on individual elements whose solvency my eyes and consequent political imagination failed to capture, as if the water did not mix easily with the milk when in fact they were thoroughly miscible. My focus on a singular component was elemental thinking. I lingered on the water, rather than on the plastic bag whose malleability

made adulteration possible, or on the milk whose liquidity could hide another liquid in plain sight.¹ My neighbor's corrective called into question the very notion of how reliable a single element might be in thinking about bodily harm, and a more general failure to consider how foods were as porous as bodies. To Suresh, I should have thought in patterns comprised of the milkman, the middleman, the chain of hands dirty with exploit – hands alternating between cups of unboiled, unpurified water and cups of milk. Elemental thinking could only imagine a politics of injury and redress derived from a choice between the hands, rather than from the homogenous product they produced together.

This led to a politics of food safety too constrictive to capture complex stories of selective absorption. When the elemental reigns as the most disturbing part of adulteration (*Dirty water* in the milk?), it can inform and often dominate a broader sense of food politics. I am interested in how selectively elemental thinking fits well – and perhaps, too easily – with a consumerist food politics. Consequently, one of my aims is to consider what an imagination of patterns might evoke in imagining food politics. As several scholars of food discuss at length, food politics has ever-deepening tendencies to take shape only in terms of consumerism, a political field where more options form the basis for possible action (Guthman, 2011; Lavin, 2013). This is increasingly the case in Indian state policies, as I will discuss. A consumerist politics in this framework fuses choice, purchase and agency. However, an analysis of reliability illustrates contexts wherein agency does not rely solely on purchase. This approach shows that elements are part of but not the entirety of what it takes to detect and address reliability and thus what it takes to live in a world infused with foods whose status as such is up for debate. More choices are not necessarily more palliative on their own, because they involve not only individual elements but also patterned arrangements between bodies, substances, desires, risks and pathologies. To detail adulterated bodies and adulterated worlds requires terms of critique that engage but also transcend food's constituent parts.

This article is informed by ethnographic fieldwork in Mumbai from 2008 to 2013 conducted across three key domains. The first domain encompassed everyday relations to food and health in a coastal, lower-middle class neighborhood of fishers in Mumbai. This involved long-term, repeated observations and interviews with neighbors inside ten households and at neighborhood social occasions such as religious holidays and community events. The second domain concerned the diagnosis, treatment and experiential narratives of metabolic illnesses – particularly obesity and diabetes – in two clinics in this neighborhood, one private and one in a charity hospital serving indigent clients. This second methodological arm involved interviews and observations with nearly 200 patients, 8 nutritionists and 20 physicians, and data came from shadowing physicians in their clinical hours, up to 5 hours a day. If patients consented, I would then interview them at the clinic or at a place and time of their choosing; a typical interview lasted 30 min. The third domain concerned the commercialization of food, which involved observations and interviews with food company marketers, street food vendors, produce and meat vendors, some in the neighborhood but also spread out across the city. Yielding over 30 encounters, this methodological arm involved observing a day's work of a given seller; for food marketers in companies, it involved attending isolated meetings and select interviews with workers and company staff.

1 On the materialities of milk, see Atkins (2012), DuPuis (2002) and Paxson (2013).

During one of my longer (18-month) stays in Mumbai, intense debate developed around a revamped food safety policy in India designed to regulate food adulteration as a matter of risk to health. My multi-sited ethnographic methodology crossed the above-mentioned sites at this time: I lived in the neighborhood and would have daily interactions with households about cooking and eating, and from my anchor in the neighborhood I would travel to various food marketing offices to study the commercialization of food. My evenings were spent in clinics close to the neighborhood, where I observed how links between food and bodies (such as diabetes or obesity) became problems for nutritionists and physicians to solve. The food safety policy shift informed questions that I asked across this assemblage of sites, especially around topics of food that contained plastic (colloq. Hindi: *plastic*) and food that is otherwise contaminated/adulterated (*milawat*, “mixed” or *naqli*, “fake”, both terms I will elaborate further).² Interviews with policymakers and organizations tasked with implementing food safety laws became additional ethnographic sites to detail this inquiry. I tracked public media such as television, online and print news, and discussed them with my interlocutors for recursive reflections that inform my content analysis. As a result, the data for this article’s analysis emerge from fieldwork across several domains.

The article’s first section elaborates the concepts of reliability, elements and patterns. The second section outlines the context of food adulteration in India. The third section introduces a specific event when food jumped from a daily concern to a mass-mediated one, and as such reflects research methods that draw on analysis of media materials such as newspapers and online videos to put publicly circulated concerns in conversation with discussions with my informants and with regulatory documents.³ In the fourth section, I discuss the policy context for these developments and reflect on the article’s broader implications in the concluding section. New food safety policies in India combined import/export politics, histories of industry and windows of bodily exposure into medico-legal demands to make the food supply safer. My objective is to show how across these phenomena, reliability suffuses how people detect and define who and what seeps into food. As such, the article’s broader aim is to recast the treatment of food safety as a problem of troublesome elements as a politics bound to the problem of troublesome patterns.

2 These are terms in Hindi that are ubiquitous in both official and everyday speech in Mumbai, where the city’s Hindi dialect derives vocabulary from Hindi, Urdu and Marathi, among other languages. The community in which I conducted research primarily speaks Marathi, Hindi and English.

3 I did not have the opportunity to speak with milk sellers themselves, but Alter (2000b) offers insights into milk adulteration from their point of view. Alter’s ethnography is based on the life of a milkman named Dil Das, whom Alter knew since his own childhood spent in the North Indian hill town of Mussorie. Alter devotes an entire chapter of the book, entitled “Dairying”, to Dil Das’s stories about life as a *dudhwala* (milkman). Milk adulteration and the milk economy more broadly represent what he calls “the gastropolitics of postcolonial India”: “In coming to represent health and wealth among those who consume it, milk, for those who produce and sell it, has become a fluid channel through which resources are being drained away”, he writes (p. 111). Alter’s analysis of milk adulteration, told from the perspective of Dil Das and other milkmen, brings to light the instability of local, regional, and national milk economies. Milk adulteration is one way in which farmers and local milkmen brace themselves against the contingencies of price fluctuations and the loss of labor-contributing family members to life events such as marriage and illness.

Detecting the Reliability of Elements

Poison and nourishment take on renewed charges when food, bodily injuries and technoscience converge, as shown in ethnographies of food safety concerns (Tracy, 2010; Zhan, 2005; Chen, 2009) and of links between food and autism (Silverman, 2012).⁴ As mentioned above in the exchange with Suresh, milk adulteration was one of the most common sites for these concerns to emerge. In the course of my research in Mumbai, I also found plastic to be a prevailing discursive-material epicenter of such charges. Plastic was the concrete materialization of snack food packaging. It glossed metallic bags of chips and cookies, and sacks of it made street-side edibles from sandwiches to samosas even more mobile. The shiny veneer of plastic-wrapped foods also signaled something undisturbed by ever-present acts of food adulteration. In this case, plastic protected and ushered food through distribution systems open to criminality. But plastic-as-preserver had less savory valences, too. As the sign of snack foods named as culprits for aggravating diabetes and obesity (both on the rise in India), plastic was a site to develop epidemic blame for chronic illness.

The word *milawat* (mixed) is used in everyday speech in Mumbai along with the English-derived words *adulterashun* and *duplicate* to describe the unwanted compromise of proper food with other substances. When describing a particular item of food that is adulterated, one is more likely to use *milawat*'s adjectival form, thus *milawati dudh*, "adulterated milk". This usage is also common with drugs deemed counterfeit or adulterated: *milawati dava*, "adulterated medicine".⁵ The overlaps here between 'adulterated' and 'fake' show the importance of a substance's possible corruptability and efficacy to its ontological realness. This also helps explain the rich meanings of *naqli*, which can euphemistically align with the English 'plastic' in its sense of 'artificial' or 'counterfeit' or 'fake'. When the word *plastic* is used colloquially, it most often refers to the material itself. But in the context of food adulteration, the use of *naqli* in descriptions of encounters with plastic expands a semantic field of critique. When plastic is the problem, and *naqli* the description, 'plastic' – stretching across languages – accommodates a material composition and a quality of food. Again, this is not because adulterated foods are any less real than their ideal types. It is because of the ways that *naqli* works to foreground authenticity and belonging, as ethnographers of brands and their counterfeits in India have detailed (Mazzarella, 2003; Cohen, 2007; Nakassis, 2012), and as detailed by ethnographers of pharmaceutical politics (Dumit, 2012; Sunder Rajan, 2006; Peterson, 2014). I add to these conversations an embodied analytic. *Naqli* food and *naqli* interventions on food (contaminating it, diluting it, simulating it) make visible the ways in which food has many hands in it before it reaches the hand of the choosy consumer. Evincing this pattern, which I describe as reliability, focuses attention on the stakes of alimentation's injurious possibilities.

To stay for a moment with the material dimensions of plastic, it is key to note that in India, plastic disrupts the vitality of organisms and ecologies beyond solely biomedical terms.⁶

4 This has been an abiding anthropological concern marked by the work of Douglas (1991), and in the Indian case, by Marriott (1968). These works show how alignments of purity and impurity around food are locally and historically contingent. For example, in the United States, food contamination was a regular occurrence and sparked concerns about the industrialization of the food system (see Cronon, 1991).

5 Here one can see the overlaps between food and drug, a topic that Ecks (2014) takes up in detail.

6 Plastic also informs the concept of 'plasticity', a term from the biosciences that refers to an organism's ability to vary according to its surrounding environments (see, for instance, Landecker, 2007; Niewöhner, 2011; Malabou, 2008; Papadopoulos, 2011; Rees, 2010).

For example, in my coastal neighborhood I learned how fishing nets enclosed plastic and food in their porous meshwork.⁷ Plastic bags would swim through the water, and clog nets meant for fish that provided nutrition for human eaters, and money for fishers who sold a given day's catch. Plastic bags also became one of many guilty parties implicated in Mumbai's massive floods beginning on 26 July 2005, as they clogged drains and the city's infrastructural lifelines. My neighbors who were fishers, and who lived in hutments on the beach, recalled the drains encumbered with plastic bags in 2005 as the water washed away their homes. An element everyone knew about had plugged up the system, again, this time to disastrous effects. Mumbai's city government has since banished certain forms of plastic bags through regulations enforced at food markets and debates over the precise thickness in microns that would make a plastic bag acceptable to exist and circulate through an urban milieu.⁸ It is not surprising, then, that within and beyond alimentary circumstances plastic is a site of unreliability. This is because it disrupts patterned relations between materials and life.

Forms of elemental breakdown and seepage are critical to plastic's possibilities for commodification and protection. In cases of food adulteration, plastic could seal off food from such exploits. These ranged from milk diluted with water to chili powder brightened with powdered brick. Here, plastic was the protector. Once disturbed, though, plastic stood in relation to food via porosity and leaching, as in Mary's comment about hot foods in plastic bags. In this second kind of relatedness, plastic is a barrier but is porous. Or, even if it works as a barrier, it might infuse into food its own petrochemical byproducts believed to cause metabolic disruption. It allows the outside world into what it wraps around. In this case plastic can be poison, with properties more liquid than solid (see Mol and Law, 1994). These features suggest that reliability can reveal a technopolitics of difference as plastic forms and deforms (Hecht, 2009).

This technopolitics is a patterned one. Following Barad's (2007) instruction to pursue "the patterns of difference that make a difference", I suggest that patterns show the stakes of reliability *differently* (and, I contend, more accurately) than comparisons between individual elements do.⁹ Approaching plastic as a pattern does both conceptual and material work in elaborating degrees of difference. Knowing difference is only one part of this story. If knowledge was all that mattered, the story would end with confirmation: one *knows* that one is being poisoned. Mystery solved, certainty attained and onto the next threat. And yet, material differences persist. Substances take time to break down in and out of the body. Further, try as one might to pinpoint the action of a specific element, it is often a constellation of substances doing the disruption – a pattern. This introduces a question about scale amidst concerns about what counts as food and how bodies take in that 'what'.¹⁰ That is, it strikes me that what counts as an element and what counts as a pattern matter here. What food is and what it is not is a matter of patterned difference.

My thinking about reliability as a pattern is also guided by Murphy's (2006) work on the uncertainties of environmental exposures. As Murphy writes, uncertainty can be a question of

7 On the concept of meshwork as a frame of materiality, see Ingold (2011).

8 See Rademacher and Sivaramakrishnan (2013) on questions of urban ecologies in India.

9 Also relevant to the discussion of plastics is the fact that Barad raises the issue of "transparency" in her analysis of how things are "substances-in-becoming", a notion Ingold (2012) mobilizes as well in his treatment of materials and materiality.

10 When I use the term "bodies in Mumbai", I am referring to bodies with a visceral, vernacular history of unreliable substances absorbed and expressed. I describe the insults, absences, and refusals around food and plastic in order to show that plastic does different work in different places, and that different places make plastic's work differentially possible because the bodies in question are not universally malleable (Roberts, 2012).

perception, such that we can approach a quandary over bodily danger from the perspective of “regimes of perceptibility” (p. 10). Put differently, it is not unknowing, but rather a quite full plate of knowing that creates controversies around food and plastic. Uncertainty also triggers detective attempts. Murphy illustrates how persons with multiple chemical sensitivity were constantly attentive to what elements of the world their body came into contact with; “Body-ecologies were sites for the practice of a do-it-yourself coping”, she explains (p. 172). In her account, detection often works as a mode of experimentation. People were uncertain if a given product would cause bodily harm, and so they undertook patterns of trial-and-error efforts to understand and to feel what was reliable and what was not.

Certainly, a tension between that which is patent and that which is latent underlies beliefs that tainted foods are the source of life’s attrition, putting poison on our plates and substituting elements of death for those of life. One need look no further than debates over genetically modified foods or debates about BPAs to see the politics of food and plastic intertwine over operations such as elemental substitution and drift (Langston, 2010; Jain, 2013; Heller, 2013; Vogel, 2013). These complexes create new horizons of possible action around food in relation to calls for biosecurity writ large and small. This article thus connects food to analyses of contamination (Fortun, 2001; Petryna, 2003) from the vantage point of everyday bodily insults.¹¹ The trails of evidence leading up to ‘action’ are complex and multi-scalar. They include low doses, long-term exposure windows, the breakdown of one material into its constitutive elements and the estimations of elemental rearrangements into patterns of realness and fakeness that people must make in gauging what kinds of injuries to expect and avoid.

Trust in the Elements

Food adulteration is neither new nor exceptional in India. It is a daily form of relation between persons, foods, homes, markets and the state. Grain rots in silos, warehouses become labs to tinker with new ways to taint food without notice, ration outlets fail to shake the pebbles out from rice and milk distributors short on supply or long on avarice add water and chalk dust to milk. Such additions and reconfigurations often appear in twentieth century food science scholarship wherein the Indian case is the instrument of pedagogy, and also in broader historical accounts of colonial efforts across Asia to intervene in food supplies such as infant formula (Manderson, 1996).¹² The poor digestion of food, incompletely and with concrete references to its possible adulteration, is part of a repertoire of complaints that encompass adulteration’s effects and a broader intersection of political critique and biomedical power (Nichter, 2001; Ecks, 2014).¹³ I am describing daily instances of insult and desire here, but it is

11 This vantage point is nonetheless thoroughly industrial. The expertise and labor involved in the food packaging and petrochemical industries infuse the plastic that appears in the stories that follow.

12 Manderson (1996) describes in detail how in colonial Malaya, concerns about the governance of population health often emerged through concerns around milk, “because of the risk of bacterial contamination through adulteration from watering down prior to sale (that is to say, through the use of unclean water), and because of the possible risk of the transmission of tuberculosis” (p. 125).

13 Nichter (2001) has a generative phrase used to frame his study of indigestion and the critique of modernity in Karnataka: the “double-voiced commentary on life” that surfaces when his interlocutors praise the improvements made to India’s food system but also critique the ways that food shows itself to be too-often less than ideal because of contamination. This double-bind is, in a different register of thinking, quite in alignment with the double-bind of patterns and elements discussed in this article.

important to note that these instances can scale up quickly and do so with deadly results. For instance, in 1998, the mixing of argemone oil with mustard oil led to nearly 60 deaths in the New Delhi area due to dropsy (Thatte and Dahanukar, 1999). The same cause was believed to cause another ‘outbreak’ of dropsy over 25 years earlier (Tandon *et al*, 1975). More recently, food believed to be contaminated with insecticide led to the death of over 20 children in Bihar, who ate the food as part of the national Midday Meal Scheme (Ahmad and Verma, 2013). Plastic packaging did not protect food or bodies in these instances; the bulk won out over the individuated and the bulk turned out to be deadly. The term ‘epidemic’ rarely captures instances of everyday injury from adulteration. More often, quotidian stomach upset is the bellwether of something crooked afoot, something inextricable from contaminated water supplies or unruly practices of hygiene which have their own cultural operations and histories of governmentality, locality and morality (Chakrabarty, 1991; Arnold, 1993; Paxson, 2013). Milk is often the abiding material of concern regarding adulteration in India. Milk comes in many packaged forms, most often in plastic bags with the brand named on the front. More recently, plastic technologies like the Tetra Pak have taken up residence on the shelves of urban markets. This is a vacuum-sealed box for liquids that promises (for an additional cost) impenetrability less available to plastic bags.

Food adulteration compels legal and policy instruments to ensure that such arrangements do not happen in the first place, and when they do, that they are deemed criminal acts. In the 1930s, trade between states obligated the Indian national government to shift toward a central legislative instrument that would identify, regulate and adjudicate food adulteration. Following Independence in 1947, the issue took shape as the Prevention of Food Adulteration Act (PFA), which was ratified in 1954, and became effective on 15 June 1955. The PFA later underwent several revisions, beginning in 1955 when the government elaborated technical specifics on matters ranging from infant formula labeling to packaged (bottled) drinking water regulations. The PFA emerged as an effort to coordinate what had until that time been a state-by-state effort to craft and regulate food laws. The actual enforcement of the laws, however, was left to individual states and Union Territories, and further decentralized to sub-regions and cities. In Mumbai, for example, the city’s Food and Drug Authority enforced food safety rules accompanied by local police, largely in the form of adulteration racket busts and raids on warehouses containing illegal imports.

Today, it is not uncommon to see evening news features about such raids, wherein a key substance such as milk is given the spotlight upon discovery that it is contaminated. A camera crew and city beat journalist follow the police into a warehouse. Lights shine on the floor, where pouches of milk wobble next to plastic buckets of water, milk pails, candles and funnels. Re-enactments (a favorite feature of vernacular news channels) fill in what everyone already knows: A man pours milk from the milk pail into a plastic bag, and then puts in one *katora* (bowl) of water. He seals the plastic bag with a candle. Enter the police: Arrests are made, the accused are named, and the amount and value of the product in question is declared (Natu, 2009; Siddhaye, 2010). For instance, a television news report on the Mumbai bust described how 100 ml of water were added to every 1-l bag of milk, and as the anchor exclaimed, it was not just any milk but *branded* milk being tainted. The reporter on location nodded to the labor economy of adulteration in the slum area surrounding the warehouse in question: “It is a way of life for most of these people here,

who have been doing this business for a few months” (IBN, 2010). In doing so, the reporter gives humanity to a pattern of persons tampering with the food of others. They do so, we understand, as a way of life. The reenactments, stories told again and again, assure viewers that the police can right the wrongs of unreliable food. Further, because televised reenactments are themselves artificial, what viewers see is the feigning of a fake, which infuses ever-more affective ambivalence into the possible trustworthiness of food.¹⁴

On the Hindi news channel *India TV*, a longer expose called “A Milk Emergency in The Nation” shows children refusing to drink their milk because it’s smelly and dirty. They rebuff their mothers’ insistence to drink it. The screen fills with an ominous question: “Is every child drinking *naqli* milk?” (*Har bachcha pi raha hai naqli dudh?*).¹⁵ Milk that is *naqli* is the impostor, the deceiver, a sign of what Cohen (2007) has described as an abiding cultural formation in India he calls “the nexus”, which “ubiquitous in political reportage, suggests an affinity or attachment in which a civil institution is deformed by an underlying relation to criminalized interest” (p. 106). Mothers can complain about unreliable milk, and they can complain to television reporters. They know with certainty that the milk in question is not what it should be, and can imagine what it might do to their children. But they must also feed their children, whose frowns and wrinkled noses raise the question of who will ensure public trust (*bharosa*) and a food supply that should supply things that are *asli* (real, natural, original) rather than *naqli*.¹⁶ Expressions such as “Is every child drinking *naqli* milk?” can be understood as refusals to absorb not just poisonous elements but poisoned patterns of infrastructures, strangers substances, and the nation’s health. What matters is the possibility to sense how reliable the pattern might be.

The Burn

I heard the rumor about a corn snack called Puffies from Mary, before I saw it played out in videos online. Among our many discussions about food adulteration, Mary once mentioned that her daughter’s teacher at the neighborhood elementary school warned against eating this snack because it contained plastic. Mary was unsure of this claim – not because food adulteration was a rare occurrence (quite the opposite) but because the plastic bag around the snack was supposed to provide a smidgen of assurance that what was inside was pure. Her daughter, Flora, took the claim as something provable through an experiment. The kitchen became the lab. Flora brought home a package of the snack, readily available at Rs 20 per package at the corner store, ripped it open and lit a crunchy cheesy curl on the gas flame stovetop. The curl burned, and turned charcoal black and shiny. “We saw them”, Mary said of the plastic “threads” she and her daughter witnessed aflame.

14 I thank Mike Fortun for pointing this out to me.

15 See www.youtube.com/watch?v=ZSFoguc0-w. Refusal of food, especially in South Asia, has its own important intellectual lineage, albeit one generally told from the standpoint of disgust, faith, and/or purity of body and spirit (see, for example, Alter, 2000a, b; Roy, 2010).

16 On the resonances between trust and science, see Shapin (1994).

Many others claimed to see them, too, Mary said. The ‘experiment’ of burning the snack was the subject of numerous online videos and of warnings sent via text and multimedia message that she directed me to. In one, a young man declares “We eat this; we eat plastic” (*Yeh hum khate hain; yeh khate hain plastic*), as he unwraps a bag of Puffies.¹⁷ The setting is a dark dormitory kitchen; the camera looks to be one built into a mobile phone. The man takes a piece of the snack, and lights it on fire. He points out how easily it burns, and emphasizes the sticky residue it leaves behind: evidence of plastic. In the video, it’s the stink of plastic (*plastic ki badboo*) that gives away the plastic in the food: “Smell that?! It’s plastic! Plastic!” he shouts as the Puffy burns. He is serious, but there is also laughter – another man off-camera tenders a joke that one can burn a bag of Puffies during the all-too-common power outages in summer. No need for candles, as corn chips will do. One man shouts about elements; another weaves them into the pattern. The montage of the video bridges both ways of apprehending reliable materials, for it shows how can turn food into plastic. Like the police enactments, repetition mattered for these videos. Over and over, they attested to the unreliability of Puffies. They went ‘viral’ enough that the multinational food company that manufactured Puffies issued a legal injunction against linking the burning of the snack to the company. This injunction held for any links made on social media, like the videos described above; violators are subject to punishment under India’s Information and Technology Act, which otherwise is used to convict acts of cybercrime. While the plastic shell was supposed to protect foods from adulteration, conflict still bled through the packaging.¹⁸ A person could make a video about a bad pattern, but the law proscribed her mixing in the company’s name. The law would be set into motion to constrict reliability’s parameters of expression to more anonymous domains like the unnamed warehouses on the evening news rather than properly named company houses on social media. Naming reliability had its constraints.

What does it mean to put food to flame in this context? One possible interpretation is that to burn is to experimentally test what happens between food and the body, a sort of metabolic modeling. In pointing to the *badboo* of the Puffy on fire, its stink, one can categorize the Puffy as real but rotten. It is food, but not in the right form; the double-bind of element and pattern does not cohere. Thus more than mere simulation, burning also distills plastic from pleasure and announces certainty: *I am setting this on fire to show that I cannot be duped. I am certain that I cannot rely on this food.* Burning food seems odd at first glance, especially in a setting where food can be difficult to come by. This is precisely the point, though: More options do not necessarily lead to more certainty, or to possibilities to alleviate injury. Refusal marks certainty about the patterned backstory of food, and further, about the ways that pointing out elements does not necessarily trigger a sentiment of bad individual choices. Recall that in the video, the man burning the Puffy does not say, “I chose this”. Rather, he reminds those watching that *yeh hum khate hain; yeh khate hain plastic* – that *we eat this; we eat plastic*.¹⁹ Plastic marks food that is unreliable. Refusal expresses dissatisfaction not just with a product, but also with the collective relations to institutions

17 A pseudonym, applied to all persons and things in this article.

18 For a detailed engagement with decentering what is eaten to focus on relations of science (specifically, those of the metabolism and of circadian biology), see Landecker (2011).

19 To be precise, *hum* can also indicate “I”, wherein a first-person plural pronoun can still refer to the singular. However, the context of the video suggests strongly that the man is speaking is using *hum* to mean the first person plural, ‘we’.

that produce decent, better, bad and worse options, a pattern that becomes most visible when the commodity meets the flame. What distills out in the Hindi invocation – the materiality of *plastic* and the reliability of *plastic* – smell rotten.

Combustion is both chemical and political in this case. This is because burning is a material claim about what *could have been* absorbed between the body and the environment in a context of unreliability. The burn enunciates: *Look at what is already inside of us.*²⁰ Persons have bought food and then burnt it, illustrating that the purchase does not exhaust the spectrum of political agency. Nor is their dissatisfaction bound solely to a product. The burn is a protest over the double unreliability of elements: food is plastic, and plastic is not just plastic but also corporate malfeasance. In another video demo of Puffies burning, the person on camera asks: “After watching this video, will you want to eat them? My opinion is: No”. Asking ‘Will you want to eat them?’ may be a question borne out of a politics of options, in this instance triggered by single elements (wanted or not). Perhaps, though, the question doesn’t only move someone into the sea of other choices. Perhaps the flame pushes on the horizons of choice. The flame illuminates the limitations of thinking elementally to assess bodies with long histories of injuries from unreliable eating. The burn is the refusal to let adulteration happen again. Not plastic, not this time, not for eating. It is not reliable. As it burns, plastic evokes past injuries and those that might be prevented in the future. Relying on elements cannot fully capture the harms at stake for bodies in all-too-common settings of unreliability. A cascade of options does not and cannot resolve the double-bind problem of food safety, wherein we are all supposed to downplay patterns to trust simply in the elements.

Reliable Regulations

While people put foods on trial every day, there are formal food safety laws meant to address and redress adulteration. In India, this approach was largely centralized at the national level in 2006. Following economic liberalization and accession to the World Trade Organization in 1995, India instituted WTO-mandated changes to the regulation of food safety. These standards and rules are based on the Codex Alimentarius, a set of international norms that regulates additives, colors, packaging, handling, ‘safe’ cooking temperatures and a host of other metrics whose adherence is required as part of WTO participation. More generally, Codex compliance is the operational standard for food exports. Any food or food-related product in India intended for export must be certified as adhering to Codex standards. The Codex sets standards for food packaging in terms of its material components. To adhere to the Codex regulations, and to centralize national policing of food safety, the Food Safety and Standards Act of 2006 (FSSA) was ratified as an Act of Parliament in August 2006. The FSSA effectively replaced the PFA of 1954 and its subsequent revisions. The FSSA created a statutory regulator for the food sector as a whole, called the Food Safety and Standards Authority of India (FSSAI). As policies in India were synchronized and refined, the law would ideally become the site to test reliability.

20 A different possible means of interpretation here is that burning is an etiological critique; see Hamdy (2008) for an elaboration of what she terms “political etiologies” in the context of body-environment injuries in Egypt.

As much as it has involved bureaucratic shuffles, the creation of the FSSAI has not ceased its criminalization of food adulteration, and even proposed in 2009 to create “Food Safety Courts” dedicated to prosecuting adulterators with punishments as severe as life imprisonment. The new Act is a “360-degree approach”, as one municipal-level official explained to me. It regulates food and humans both, and incites the latter toward a state of certainty about what happens to food. For instance, the Act provides compensation for persons who suspect they developed food poisoning from a particular vendor or restaurant (they need only file a complaint with the police, provide a sample of their vomit, furnish a copy of their bill and have a doctor certify their condition) (Acharya, 2011). Separate from food poisoning, there is a “Reward Scheme” for the identification of “useful information” about mislabeled food and/or misleading advertisements and “extravagant claims”. The form assures the would-be informer that “All steps will be taken to be extremely discreet in approaching you so that identity is always kept a very closely guarded secret”. Information deemed valid merits a reward of Rs 500. To make things reliable takes testimony.

The implementation of the FSSA impelled a vast increase in the number of food testing labs across the country (FNB Bureau, 2010). But the Authority’s emphasis on detecting elements extends into the home as well. In 2012, the FSSAI published a brochure that explained quick tests to detect common adulterants in food, ranging from mashed potatoes used to whiten ghee (to be detected with a few drops of iodine, and will turn blue if potatoes are present), to chalk used to whiten salt and sugar (to be detected by dissolving the suspected substance in water and seeing if chalk settles at the bottom of the glass). As the brochure put it, adulteration of food is “a deep rooted social evil”, such that “The lure of riches and general apathy towards mankind has led to adulterants being added to food from the simple stones in rice to the more harmful brick and boric powder” (FSSAI, 2012). The only things you-as-consumer can rely on are yourself and domestic science premised on elemental detection.

Reliability coheres in what lies beneath the plastic wrap of packages, too. In the wake of the FSSA, food labels have become a focal site of tensions between the material and the biopolitical held together in plastic enclosures. The politics of the labeling of food has been a recent site of study for scholars of food, particularly in relation to the political instruments of recommended daily allowances and other nutritional regulations (Mudry, 2009; Biltekoff, 2013; Scrinis, 2013). However, such studies tend to focus attention to what is *on* the label, ingredient-by-ingredient. In Mumbai, I found myself observing label-looking, although the settings were of course quite different than in the United States. Some neighborhood markets involve the possibility of combing the aisles in solitude, but more often a person asks the owner to take a product off the shelf behind the counter, and can only then inspect it. This is changing as big-box stores begin to take hold, but the neighborhood *kirana* shop where one finds dried goods and staples such as rice and oil tends to be the complement to the mobile vegetable and fruit carts or fresh goods delivery that many Mumbaikars access.

The label works as a truth-teller, in part. It assures that what is inside the package is the right pattern of elements and therefore that the commodity form remains intact. Cultural theorist Willis (1991) reflects on this assurance in her expansive analysis of the cultural and economic contradictions of the commodity and its use value, *A Primer for Daily Life*. Willis begins with an observation of mass uncertainty: “Everything is packaged”, she writes. “Late twentieth-century commodity production has generated a companion production of commodity packaging that is so much a part of the commodity form itself as to be one of the most

unremarked features of daily life. Only when we have to drag all those 30 gallon black plastic trash bags out to the curb or haul them to the town dump are we likely to grasp the enormity of packaging” (p. 1). The enormity of packaging, she details, derives much of its capacity from plastic. For instance, a package’s plastic cover “replicates the display case or store window and suggests that each and every item is worthy of display” (p. 1). Willis is clear that “Conspiracy just is not the right word” when it comes to thinking about the alignments of industry, objects and desire (p. 117). Instead, Willis suggests that attention be paid to the cultural practices of consumerism (p. 112).

I would take her suggestion in a slightly different direction, and point to the ways that bodies and label politics have become nearly inextricable patterns themselves. For instance, one Indian newspaper article, entitled “The Perils of Packaging”, began with the declaration that “Due to our lifestyles, India has become a hub for many of the worlds deadliest diseases, such as heart disease, hypertension and diabetes. To a large extent, the management or cure of these diseases depends on what we eat” (Khullar, 2010). The author of the article, a diabetic himself, decided to study the nutrition labels of several processed foods and contacted the manufacturers to discuss their labeling policies. He was largely ignored. “My take is that [food companies] aren’t prepared or have chosen to ignore the health of their consumers until the law forces them to publish complete nutrition information”, he concluded. A commenter on the online version of the article put this squarely in legal terms, opining that laws were weak, policymakers were corruptible, and the adulteration of foods should be punishable as a crime under the Indian Penal Code’s section 307 – Attempt to Murder. This was because adulteration “can finish or cripple the generations”. With the invocation of crime and legal reparation, some persons directly point out reliability’s patterns by pointing out the failure of the law to address them. In this context of desire, eating and regulation, the reliability of food is a material, political possibility whose ambivalence emerges through commerce, governance and the judicialization of health (Biehl and Petryna, 2011).

Conclusion

In this article, I have recast a consumerist, choice-focused approach to food safety. As people light food on fire, turn kitchens into labs and gamble on food’s power to poison, they devise strategies to think and act on sensibilities about foods whose qualities to nourish lie somewhere between bona fide and bogus. Reliability is the concept I have developed to draw attention to this interstitial space. This space, I have argued, is a space for politics. Reliability offers a framework to address how people grapple with food adulteration through logics different than those of “options” and “choices”, the usual suspects in a politics of consumerism too often assumed to map with certainty onto a politics of life. I have suggested that reliability’s patterned forms of affirmation, question and refusal merit deeper attention. This approach might better detail the possibilities and limits of an overly elemental approach to food politics. Food in the ethnographic context I have described is rarely a substance whose trustworthiness is self-evident. In a world shot through with very certain knowing that things are not themselves, the question of ‘who and what can you rely on’ involves more than a crisis of knowing. It involves, further, powerful acts upon the patterned and porous relations between bodies and environments.

People certainly acknowledge elemental substitutions: the water in the milk or the plastic in the Puffies. These are the constituent parts of what may or may not be reliable at the interface

of persons, materials, governments and companies.²¹ An analytic frame of reliability directs ethnographic attention to this bind. It does so even as persons and options distill out in the face of audit instruments like the FSSA, which asks an individuated injured person to turn in the guilty party (and one's vomit) for recompense. Given that substances do not always break down predictably, reliability also offers a framework to address differences between prediction and outcome. From the perspective of reliability, the snack that explodes into flames in Mary's kitchen *is* the snack – just not the one that was expected. The resolution between expectation and actuality might be a better focus for understanding what precisely the disturbance is about. Elements indeed spark outrage, for there might be plastic in the snack. Yet other certainties remain, namely, that one cannot rely on food to be food, and thus one cannot always absorb food as something purely nutritive or pleasurable. Attending to this in-between space of integrity and artifice shows the work it takes to secure reliable patterns in a world in which everyone knows the elements are rotten.

The outbreak of poisonous elements in consumable goods certainly calls into question of the corporatization of the food system and its global valences (Vedwan, 2007). My aim here, by contrast, has been to draw attention to instances when elemental thinking might dovetail with forms of consumerist politics. The expression of 'I do not want to eat this' might be read as simply a matter of buyer's preference. Food safety systems continue to work through a premise of ridding ecosystems of single elements, one by one, an 'eat this, not that' way of promising health. Reliability takes food safety in a different direction; it draws attention to the ways that affirmations, refusals and questions emerge in patterns: 'This food is not real', and 'I will not eat this because it is tainted' and 'Who can I rely on to feed my family?' In the context of food safety, reliability articulates the intimate politics of what has been considered on wider scales as biosecurity (Lakoff, 2007; Briggs, 2011). Reliability matters when it comes to differentiating what security means and who it is for, and thus it offers a place to better refine ideas and actions around food safety policy and notions of how bodies and environments interrelate.

Anchors of reliability like plastic do not disappear when the fieldworker leaves the field. As I reflected on plastic in urban India from my home in the United States, I found it difficult to disentangle thinking about plastic 'over there' from the barrage of cautionary tales 'here' (especially in the workplace) about the deadly marriage of food and plastic's degenerative kin of phthalates and BPA's. Elemental thinking can also be selective. In the case of the soda bans in New York City, high-fructose corn syrup is the culprit, and not the plastic bottles the soda comes in – those are to be regulated by size, not composition. A compositional analysis can yield much in the way of knowledge about the elements (Latour, 2010). But how close for comfort are those elements, arranged together and in relation to their bearers? Answering that question involves deeper attention to who and what you can rely on when food is most certainly uncertain.

21 Consider the case of tensions over the nutritional supplement called Plumpy'Nut, a plastic-wrapped packaged peanut paste developed by a French food company to treat severe acute malnutrition. In this instance, plastic fixes hunger by working as the counterpoint to cooking. It makes food ready, anywhere and anytime. However, the Indian government refused the product, and ordered UNICEF to stop procurement of it on the grounds that the government's priorities lay in building up the infrastructure of programs such as the *Anganwadi* and Midday Meal Schemes, where meals are cooked on-location (Janeja, 2013). Here, the state is the agent that refuses plastic. On the politics of food security in relation to global health, see Yates-Doerr (2014).

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References

- Acharya, P. (2011) Now serving: Compensation for food poisoning. *Mumbai Mirror* 24 August.
- Ahmad, F. and Verma, H. (2013) Poison theory floats as Bihar midday meal kills 27 kids. *The Times of India* 18 July.
- Alter, J.S. (2000a) *Gandhi's Body: Sex, Diet, and the Politics of Nationalism*. Philadelphia, PA: University of Pennsylvania Press.
- Alter, J.S. (2000b) *Knowing Dil Das: Stories of a Himalayan Hunter*. Philadelphia, PA: University of Pennsylvania Press.
- Arnold, D. (1993) *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India*. Berkeley, CA: University of California Press.
- Atkins, P. (2012) *Liquid Materialities: A History of Milk Science and the Law*. London: Ashgate.
- Barad, K.M. (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press.
- Biehl, J. and Petryna, A. (2011) Bodies of rights and therapeutic markets. *Social Research: An International Quarterly* 78(2): 359–386.
- Biltekoff, C. (2013) *Eating Right in America: The Cultural Politics of Food and Health*. Durham, NC: Duke University Press.
- Briggs, C.L. (2011) Communicating biosecurity. *Medical Anthropology* 30(1): 6–29.
- Chakrabarty, D. (1991) Open space/public place: Garbage, modernity and India. *South Asia: Journal of South Asian Studies* 14(1): 15–31.
- Chen, N. (2009) *Food, Medicine, and the Quest for Good Health: Nutrition, Medicine, and Culture*. New York, NY: Columbia University Press.
- Cohen, L. (2007) Song for pushkin. *Daedalus* 136(2): 103–115.
- Cronon, W. (1991) *Nature's Metropolis: Chicago and the Great West*. New York: W.W. Norton.
- Douglas, M. (1991) *Purity and Danger*. London: Routledge.
- Dumit, J. (2012) *Drugs for Life: How Pharmaceutical Companies Define Our Health*. Durham, NC: Duke University Press.
- DuPuis, E.M. (2002) *Nature's Perfect Food: How Milk Became America's Drink*. New York: NYU Press.

- Ecks, S. (2014) *Eating Drugs: Psychopharmaceutical Pluralism in India*. New York: New York University Press.
- FNB Bureau (2010) Booming business in food testing labs in India. *Food and Beverage News* 31 May.
- Fortun, K. (2001) *Advocacy after Bhopal: Environmentalism, Disaster, New World Orders*. Chicago, IL: University of Chicago Press.
- FSSAI (Food Safety and Standards Authority of India) (2012) *Quick Test for Some Adulterants in Food: Instruction Manual Part I (Common Methods for Detection in Households)*. New Delhi: Food Safety and Standards Authority of India.
- Gupta, A. (2012) *Red Tape: Bureaucracy, Structural Violence, and Poverty in India*. Durham, NC: Duke University Press.
- Guthman, J. (2011) *Weighing In: Obesity, Food Justice, and the Limits of Capitalism*. Berkeley, CA: University of California Press.
- Hamdy, S.F. (2008) When the state and your kidneys fail: Political etiologies in an Egyptian dialysis ward. *American Ethnologist* 35(4): 553–569.
- Hecht, G. (2009) *The Radiance of France: Nuclear Power and National Identity After World War II*. Cambridge: MIT Press.
- Heller, C. (2013) *Food, Farms and Solidarity: French Farmers Challenge Industrial Agriculture and Genetically Modified Crops*. Durham, NC: Duke University Press.
- IBN (2010) Milk adulteration racket busted in Mumbai. 20 March.
- Ingold, T. (2011) *Being Alive: Essays on Movement, Knowledge and Description*. New York: Routledge.
- Ingold, T. (2012) Toward an ecology of materials. *Annual Review of Anthropology* 41(1): 427–442.
- Jain, S.L. (2013) *Malignant: How Cancer Becomes Us*. Berkeley, CA: University of California Press.
- Janeja, M. (2013) Hunger matters. *Anthropology News* December.
- Khullar, S. (2010) The perils of packaging. *The Times of India* 13 May.
- Lakoff, A. (2007) Preparing for the next emergency. *Public Culture* 19(2): 247.
- Landecker, H. (2007) *Culturing Life: How Cells Became Technologies*. Cambridge: Harvard University Press.
- Landecker, H. (2011) Food as exposure: Nutritional epigenetics and the new metabolism. *BioSocieties* 6(2): 167–194.
- Langston, N. (2010) *Toxic Bodies: Hormone Disruptors and the Legacy of DES*. New Haven, CT: Yale University Press.
- Latour, B. (2010) An attempt at a “compositionist manifesto”. *New Literary History* 41(3): 471–490.
- Lavin, C. (2013) *Eating Anxiety: The Perils of Food Politics*. Minneapolis, MN: University of Minnesota Press.
- Malabou, C. (2008) *What Should We Do With Our Brain?* New York: Fordham University Press.
- Manderson, L. (1996) *Sickness and the State: Health and Illness in Colonial Malaya, 1870–1940*. Cambridge: Cambridge University Press.
- Marriott, M. (1968) Caste ranking and food transactions: A matrix analysis. In: M. Cohn and B. Singer (eds.) *Structure and Change in Indian Society*. New York: Wenner-Gren Foundation for Anthropological Research.
- Mazzarella, W. (2003) *Shoveling Smoke: Advertising and Globalization in Contemporary India*. Durham, NC: Duke University Press.
- Mazzarella, W. (2006) Internet X-Ray: E-governance, transparency, and the politics of immediation in India. *Public Culture* 18(3): 473–505.
- Mol, A. and Law, J. (1994) Regions, networks, and fluids: Anaemia and social topology. *Social Studies of Science* 24(4): 641–671.
- Mudry, J. (2009) *Measured Meals: Nutrition in America*. Albany, NY: SUNY Press.
- Murphy, M. (2006) *Sick Building Syndrome and the Problem of Uncertainty: Environmental Politics, Technoscience, and Women Workers*. Durham, NC: Duke University Press.
- Nakassis, C.V. (2012) Counterfeiting what?: Aesthetics of brandedness and BRAND in Tamil Nadu, India. *Anthropological Quarterly* 85(3): 701–721.
- Natu, N. (2009) Milk adulteration racket busted, 11 arrested. *Times of India* 20 November.
- Nelson, D.M. (2001) Indian giver or noble savage: Duping, assumptions of identity, and other double Entendres in Rigoberta Menchú Turn’s Stoll/En Past. *American Ethnologist* 28(2): 303–331.
- Nichter, M. (2001) The political ecology of health in India: Indigestion as sign and symptom of defective modernization. In: L. Connor and G. Samuel (eds.) *Healing Powers and Modernity: Traditional Medicine, Shamanism, and Science in Asian Societies*. Westport, CT: Praeger.
- Niewöhner, J. (2011) Epigenetics: Embedded bodies and the molecularisation of biography and milieu. *BioSocieties* 6(3): 279–298.

- Papadopoulos, D. (2011) The imaginary of plasticity: Neural embodiment, epigenetics and ecomorphs. *The Sociological Review* 59(3): 432–456.
- Peterson, K. (2014) *Speculative Markets: Drug Circuits and Derivative Life in Nigeria*. Durham, NC: Duke University Press.
- Paxson, H. (2013) *The Life of Cheese: Crafting Food and Value in America*. Berkeley, CA: University of California Press.
- Petryna, A. (2003) *Life Exposed: Biopolitics After Chernobyl*. Princeton, NJ: Princeton University Press.
- Pigg, S.L. (1996) The credible and the credulous: The question of villagers' beliefs in Nepal. *Cultural Anthropology* 11(2): 160–201.
- Rademacher, A. and Sivaramakrishnan, K. (2013) *Ecologies of Urbanism in India*. Hong Kong: Hong Kong University Press.
- Rees, T. (2010) Being neurologically human today: Life and science and adult cerebral plasticity (an ethical analysis). *American Ethnologist* 37(1): 150–166.
- Roberts, E.F.S. (2012) *God's Laboratory: Assisted Reproduction in the Andes*. Berkeley, CA: University of California Press.
- Roy, P. (2010) *Alimentary Tracts: Appetites, Aversions, and the Postcolonial*. Durham, CA: Duke University Press.
- Scrinis, G. (2013) *Nutritionism: The Science and Politics of Dietary Advice*. New York: Columbia University Press.
- Shapin, S. (1994) *A Social History of Truth: Civility and Science in Seventeenth-Century England*. Chicago, IL: University of Chicago Press.
- Siddhaye, N. (2010) Milk adulteration racket busted in Maharashtra. *DNA* 21 March.
- Silverman, C. (2012) *Understanding Autism: Parents, Doctors, and the History of a Disorder*. Princeton, NJ: Princeton University Press.
- Smith, D.J. (2007) *A Culture of Corruption: Everyday Deception and Popular Discontent in Nigeria*. Princeton, NJ: Princeton University Press.
- Sunder Rajan, K. (2006) *Biocapital: The Constitution of Postgenomic Life*. Durham, NC: Duke University Press.
- Tandon, R.K., Singh, D.S., Arora, R.R., Lal, P. and Tandon, B.N. (1975) Epidemic dropsy in New Delhi. *The American Journal of Clinical Nutrition* 28(8): 883–887.
- Thatte, U. and Dahanukar, S. (1999) The Mexican poppy poisons the Indian mustard facts and figures. *The Journal of the Association of Physicians of India* 47(3): 332.
- Tracy, M. (2010) The mutability of melamine: A Transductive Account of a Scandal. *Anthropology Today* 26(6): 4–8.
- Vedwan, N. (2007) Pesticides in coca-cola and peps: Consumerism, brand image, and public interest in a globalizing India. *Cultural Anthropology* 22(4): 659–684.
- Vogel, S.A. (2013) *Is it Safe?: BPA and the Struggle to Define the Safety of Chemicals*. Berkeley, CA: University of California Press.
- Willis, S. (1991) *A Primer for Daily Life*. New York: Routledge.
- Yates-Doerr, E. (2014) The world in a box? Food security, edible insects, and “one world, one health” collaboration. *Social Science & Medicine* 129: 106–112.
- Zhan, M. (2005) Civet cats, fried grasshoppers, and David Beckham's pajamas: Unruly bodies after SARS. *American Anthropologist* 107(1): 31–42.