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Confused because exposed Towards an ethnography of environmental suffering

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ABSTRACT ■ Based on long-term collaborative ethnographic fieldwork in a shantytown called Flammable (real name) located in Argentina, this article examines residents' perceptions of their highly polluted surroundings. Using a case study to explore the relationship between objective space and subjective representations (habitat and habitus), the article a) describes the widespread confusion that dominates shantytown dwellers' views of contamination, and b) argues that this confusion translates into self-doubts, division, stigma, and a continual waiting time. The article ends with an empirically grounded speculation regarding the sources of toxic uncertainty.

KEY WORDS ■ pollution, environmental suffering, poverty, Argentina

Claudia's suffering

In 1987 Claudia Romero moved to Flammable shantytown (Villa Inflamable, located in Dock Sud, in the district of Avellaneda, Buenos Aires, Argentina). She was seven years old. At the time, her parents were working in the then state-owned YPF (Yacimientos Petrolíferos Fiscales) oil refinery. After a few

years of a long commute from Florencio Varela, Claudia's parents found a place to live right across from the compound that houses YPF (now the privatized Repsol), Shell, and other petrochemical companies and storage facilities. They have all been living in the neighborhood for the last 19 years.

Claudia is now 25 years old, married to Carlos Romero, and has four children. Both Carlos and Claudia used to work as cleaners in two of the companies of the compound, but they lost their jobs years ago. These days, Carlos leaves the house every afternoon to scavenge in downtown Avellaneda. 'On a good week, I make around \$25 (US\$8)', he tells us. 'Sometimes I bring stuff to sell, a pair of sneakers, or something I find in the street. And I make 5 or 10 pesos. It all depends on the kind of merchandise I bring, but now the streets are empty. It's tough. But some people give me cardboard or newspapers, some other people give me clothes or sneakers, and I sell that stuff. And we subsist ... with her Plan; we have nothing else.' Claudia has not been able to find a job and is currently a beneficiary of the Plan Jefas y Jefes, a state unemployment subsidy of \$150 per month (US\$50) that the federal government launched after the 2001 economic collapse in Argentina. 'Together', she says, 'we make around \$250 (US\$82 per month) ... and with that we make ends meet (con eso tiramos). We cook once a day, at night.' For lunch, their children have bread and milk; their only full meal comes at dinner time. On the weekends, they all attend communal soup kitchens: 'On Saturdays and Sundays we always go there, so that they can eat at least once ...' Claudia tells us. Their gas carafe costs \$24, 'we don't always have the money to pay for it and we have to use wood [for cooking and heating].' Carlos tried to sign up for the Plan Jefas y Jefes, 'but nothing happened. I did all the paperwork and nothing came through.'

The Romero's pressing economic needs compete for their attention with the constant health problems of two of their children. 'Two of them', Claudia remarks, 'have problems. The other two came out well.' The youngest one, Julián, is now six, and has been having convulsions since he was a baby:

He was born with this mark on his head. The doctors told me it was nothing. That it was just a birth mark. He then started to have convulsions and I began to go from one hospital to another. At the Children's Hospital, he had a tomography done and it turns out that his brain is affected by that mark, which is not just on the outside but on the inside too. And now he has that angioma that is popping out. See, Julián, show it to them.

When Julián shows us the protruding red pimple, we ask Claudia about the doctors' diagnosis. 'They don't explain anything to me', she replies, 'They don't know why he has that mark. I had my testing done, his father was also tested. And we have nothing. They didn't screen us for lead because

they have to charge us for that. And we couldn't pay.' Julián was prescribed an anticonvulsant. Claudia receives a bottle of Epamil a month for free at the local public hospital, 'but Julián uses 2 or 3 bottles. And it's \$18 to \$20 each one, and sometimes we can't afford it. I began the paperwork to see if I can get it for free. Everybody promised me but nothing happened. Papers, papers, papers . . . nothing but words.' Julián needs to be routinely supervised for his convulsions, but it has been a while since his last check up:

We now have an appointment for August. He could die before then but I have to wait [our emphasis]. Sometimes he has convulsions twice a day, and I have no medication. Now I don't even have money to [pay for the bus to] go to the hospital. Children here are always sick, with bronchitis, with a cold. She [referring to Sofia, her seven-year-old daughter] always has headaches and stomach aches.

Sofia was born with her left leg significantly shorter than her right one: 'When I had my first ultrasound, I was told that she was going to come out with problems. When I told the doctors that I was living here, they told me I should have my lead level tested. I couldn't afford the exams [medical tests for lead level]. The doctors told me that the lead may have caused the problem with her leg.' Lately, Sofia has begun to show signs of serious learning difficulties at school: 'She has problems remembering the numbers . . . it's really hard for her.'

Claudia herself is not in better shape. She looks much older than 25. Half of her teeth are missing; she always looks extremely tired: 'I have all the symptoms', she says, referring to possible lead poisoning. 'I had cramps, blood coming out of my nose, constant headaches. It's been three or four years now that I've been aching all over.' When the pain is unbearable, she attends the local health center, 'and the doctors give me some aspirin. I get better but then the pain comes back. At night it is even worse.' When we asked about her lead levels, she tells us that the tests are very expensive for her to afford: 'they are between \$100 and \$200.'

Claudia knows that she is not the only one with an aching body and with sick children. The problem, she says, 'is all over':

I don't really understand numbers, but my nephew has 50% of lead [referring to 50 ug/del (micrograms per deciliter), far above the 10 ug/del which is considered normal]. My sister was able to pay for the lead tests because her husband works at Shell. She knew she had high levels of lead when she was pregnant [. . .] But she is not doing anything about it. She is not in any treatment because she might cause trouble to her husband who works at Shell. If they find out that she has been tested, he might lose his job. Sometimes I want to kill her. It is as if they are scared. But I believe the children

come first. What about her children's lives? Her kid is not gaining any weight. He is very thin, and he looks yellowish. He has tons of problems, but she doesn't do anything about them. There are many, many kids with problems here.

Asked about the local doctors' reactions to these troubles, she reacts: 'Nothing, they say nothing. One of the doctors left because she began to feel sick and she found out she had lead in her blood. She'd been here only a year so imagine how we are.' During the course of our conversation, Claudia admits that she wants to leave Flammable but also says that she has not been looking seriously into that possibility and adds that 'now they want to move all the people out of here'. She is referring to a census that personnel from the municipality are carrying out in the neighborhood. Nobody knows exactly what is the purpose of yet another census (there was one just a few years ago) but they all suspect it is related to a possible relocation: 'A million times they promise things. They said they were going to move us out, that they were going to make new houses for us, but they're just promises. Nobody believes anything anymore. People are really burnt out here. Shell wants this piece of land. And here, in this area of the neighborhood, we are only 22 families, so it is quite easy to remove us from here [...] I do want to leave. Sometimes you can't be outside, the odor stinks, your throat stings. It smells of gas. Even if we close our doors, it smells ...'

Surrounded by one of the largest petrochemical compounds in the country, by a highly polluted river that brings the toxic waste of tanneries and other industries, by a hazardous waste incinerator, and by an unmonitored landfill, Flammable's soil, air, and water-streams are highly polluted with lead, chromium, benzene, and other chemicals. So are, unsurprisingly, its sickened and frail inhabitants. With the other 5,000 residents of this community, the Romeroes are playthings of environmental, economic, and political misfortunes – hardly of their own making. The Romeroes' troubled lives illustrate the devastating effects of toxic contamination on the young bodies and minds of Flammable residents. Theirs is also a story, common to other territories of urban relegation in Argentina, of sheer economic need stemming from the disappearance of work and of a state that has all but abandoned them. Fears about the origins and prognosis of their (and their loved ones') infirmities, uncertainties regarding the relocation efforts (un)coordinated by the local state, confusions stemming from physicians' confusing interventions, suspicions and rumors concerning the actions of the most powerful company of the compound, Shell, all abound in the lives of the Romeroes and of many a Flammable resident. The product of a two-year-long collaborative ethnography, this article examines residents' perceptions of their highly contaminated habitat.

This article draws upon three complementary strands of Pierre Bourdieu's work. First, in substantive terms, we take heed of Bourdieu's concern with the experiential forms of social suffering focusing on environmental suffering – a form of affliction that has been (almost completely) neglected by students of poverty and marginality in Latin America. With few exceptions (Scheper-Hughes, 1994; Farmer, 2003), ethnographies of the urban pariahs of the region have failed to take into account one simple, essential, fact: the poor do not breathe the same air, drink the same water, or play on the same grounds as others. The polluted environment has dire consequences for their health and future capabilities, upon which issues scholars have remained shamefully silent.¹

Second, in methodological terms, we combine the kind of reflexive ethnography Bourdieu advocated with the use of photography. Regarding ethnography, we undertook a team approach. As well as archival work, Javier Auyero conducted most of the interviews with officials, company personnel, activists, lawyers. Debora Swistun conducted most of the interviews with and elicited life stories from residents. She was born and has lived all her life in the neighborhood; most of the people she talked to during the course of this two-year project are her neighbors, some of whom have known her since she was born and are friends or acquaintances of her family. Familiarity and social proximity were extremely useful in reducing as much as possible the symbolic violence exerted through the interview relationship (Bourdieu et al., 1999). At our request, youths at the local school took pictures of their neighborhood.² We conceived of these photographs as 'lay sociograms' (Bourdieu and Bourdieu, 2004) (i.e. diagrammatic representations of the ways in which young residents perceive their environment), and we rely on them (and on some of our own pictures) to introduce the reader into the space of Flammable. Ethnography and photography are here combined to understand and explain residents' lived experiences of toxic contamination.

Third, and most importantly, we empirically explore the relationship between objective space and subjective representations (or habitat and habitus) in one specific (poisoned) universe. In particular, we seek answers to the following question about 'site effects' (Bourdieu et al., 1999): how do residents, who have for years been regularly exposed to a poisoned environment, think and feel about their dirty and contaminated place, its noxious fumes, polluted waters and grounds? Our argument is three-fold: *first*, we show that there are multiple, confused and (oftentimes) contradictory points of view on the polluted habitat. There is also widespread blindness (a non-view, so to speak) regarding sources and effects of toxicity. Against simplistic and one-sided representations (created from the outside, mainly by the media) that construct Flammable as a place inhabited by people who think and feel about toxicity in a single, monolithic way,



Figure 1 The compound seen from Flammable. Photo by the authors.



Figure 2 The compound seen from Flammable. Photo by the authors.

long-term ethnography reveals the presence of a diversity of coexisting views and deeply held beliefs. There is neither a determined take up of arms against toxic assault nor a population completely adjusted to contamination. *Second*, we contend that ignorance and doubt, mistakes and contradictions, sometimes transform into self-doubt (regarding the 'true' extent of contamination) and into divisions and stigmas (regarding 'who' is 'really contaminated'). *Third*, we argue that this widespread confusion translates into an endless waiting time. Flammable residents are constantly waiting for further testing that will 'truly' show the effects of pollution. They are also waiting for an always 'imminent' state relocation plan, and for a 'huge' settlement with one of the 'powerful companies' that will, in the words of a neighbor, 'allow us to move out.' This waiting, we believe, is one of the main ways in which Flammable residents experience submission to an overwhelmingly damaging reality.

We are certainly not the first to study the ways in which people think and feel about toxic dangers. There is, by now, a long tradition that grapples with variations of the same theme. A number of studies have chronicled the origins, development and outcomes of collective actions organized against the presence of pollutants in several communities in the United States and have examined the views and sentiments of affected residents (Levine, 1982; Brown and Mikkelsen, 1990; Couch and Kroll-Smith, 1991; Aronoff and Gunter, 1992; Capek, 1993; Walsh et al., 1993; Bullard, 1994; Murphree et al., 1996; Checker, 2005; Lerner, 2005; for a recent review of research on and protest against environmental injustice, see Pellow, 2005). Although diverging in methodology, analytic depth, and empirical focus, a typical sequence can be extracted from most of these accounts: collective ignorance about the presence and impact of toxins is interrupted when a neighbor or a group of them, in many cases 'irate housewives turned into activists' (Mazur, 1991: 200), begin to make the connections between their place of residence and the existence of certain illnesses, between illness and toxic waste, and between his or her individual problems and those of others. Brown and Mikkelsen (1990) coined the term 'popular epidemiology' to refer to the process through which victims 'detect' a disease pattern. This process of *discovery* of danger, of increasing *awareness* about the effects of surrounding toxins, is usually spearheaded by residents-turned-activists: Larry Wilson in Yellow Creek, Key Jones and Kathleen Varady in Pennsylvania, Anne Anderson in Woburn, Margie Richard in Diamond, and the now legendary Lois Gibbs in Love Canal, are the best-known examples of stubborn, almost heroic, leaders of 'long and bitter' struggles (Couch and Kroll-Smith, 1991). This typical sequence also includes an active process of *learning* (and a great deal of frustration) in which victims become skilled at playing political games with authorities and quickly absorbing scientific knowledge.

Despite divergent theoretical orientations, most of the available accounts seem to share a classical Marxist model of consciousness: physically proximate aggrieved people overcome false beliefs or persistent uncertainties through reflection and interaction. The outcome of this process of 'loss of innocence' (Levine, 1982; Cable and Walsh, 1991) is, almost always, a single and determined consensus regarding the problem and its solution – tellingly, the main actor in most of the chronicles is 'the community.' In emphasizing changes in collective perceptions of legitimacy and mutability of objective conditions, most works portray – either implicitly or explicitly – a variation of what Doug McAdam termed, a while ago, 'cognitive liberation,' that is, the 'transformation from hopeless submission to oppressive conditions to an aroused readiness to challenge those conditions' (1984: 34).

In its almost exclusive focus on successful cases (i.e. cases in which communities were either relocated, compensated and/or cleaned) and in its emphasis on the ultimate achievement of a shared consensus regarding sources, effects, and solutions to contamination (communities that 'discover' and know about surrounding toxicity), extant literature leaves cases such as *Flammable in the shadows*.³ Most of what we know about environmental injustice and the emergence of collective action against those responsible for contamination is of little analytic help to understand and explain cases in which there is neither a clear outcome nor a single shared consensus on the very existence of a problem, less so its potential solution. When confronted not with cognitive liberation and protest but with the reproduction of ignorance, doubt, disagreements, and fears, we are at an analytical and theoretical loss.

Many people in *Flammable* know about contamination but interpret the information in different, sometimes contradictory, ways. Many other people ignore and/or are uncertain about the presence of toxins in the environment and/or about the relationship between exposure and disease. Paradoxically, as the contamination of air, water and soil increased over the years, residents became less certain about its extent and effects. When confronted with cases such as *Flammable* in which residents are divided (there is no single community to speak of) and confused, a place where ignorance is routinely reproduced and risk is constantly normalized, we thus need to resort to an alternative framework: one that makes the perpetuation of ignorance, mistake, and uncertainty the center of analysis (Eden, 2004; Vaughan, 1999, 2004). In *Flammable*, what calls for an in-depth examination is the 'not-knowing' that is a constitutive part of the way in which social domination works and of the daily fabric of toxic suffering.

A toxic history of Flammable

Flammable shantytown is located in the district of Avellaneda, on the southeastern border of the city of Buenos Aires.⁴ According to the last available figures, in 2000, there were 679 households in Flammable. It is a fairly new population: 75 percent of the residents have lived in the area for less than 15 years. Although there is no exact count, municipal authorities, community leaders, and people who live or work in the area (in the petrochemical compound, the school, and health center) told us that in the past decade the population increased at least fourfold – growth fed by shantytown removal in the city of Buenos Aires and by immigration from other provinces and nearby countries (Perú, Bolivia and Paraguay). A small sector of old-time, lower-middle-class residents are clearly marked off from the majority of newer, low-income dwellers. These internal differences between the old neighborhood and the recent shantytown are crucial to understand the meanings and experiences of contamination. Scavenging, state welfare programs, and part-time manual jobs in one of the companies in the compound offer the main source of subsistence in Flammable.

Flammable shantytown is, in many ways, similar to other poverty enclaves in urban Argentina, deeply affected by rocketing unemployment and the ensuing misery of the 1990s (Auyero, 2000). What distinguishes this poor neighborhood from others, however, is the particular relationship it has with the compound's main company, Shell-Capsa, and the extent of the contamination that affects the area and its residents.

The brick walls and guarded gates that separate the compound (the site of six major petrochemical companies and numerous small ones) betray the long connection that, for more than 70 years, Shell-Capsa has had with the community. The first Shell Oil refinery opened in 1931. Since then, together with the other chemical, oil, and electrical companies within the compound (notably YPF, Meranol, Central Dock Sud, and now Petrobras), it has attracted eager workers who came from the provinces to look for work in Buenos Aires. In the life stories we collected, older residents remember an abundance of work in the area. They also recall the lack of housing close to the compound and their strenuous efforts to build what initially were shacks in the middle of swamps. Still, today, there are lowlands in the center of the neighborhood. Filling in and leveling out the surroundings appears in old timers' narratives as a very important joint activity of those early days, and one which continues today according to our interviews and observations. Health practitioners in the area claim that one of the possible sources of local contamination might be the very materials, often packed with toxic waste, that people in the neighborhood have used (and still use) to level their plots.



Figure 3 Locals leveling their plots with (probably poisoned) waste. Picture taken by Marcelo, Ninth Grade, Flammable School.

There are several elements of the material and symbolic entanglement between the neighborhood and Shell, or *la empresa* as residents call it. Historically, Shell provided formal and informal jobs for men (who worked in the refinery) and women (who did domestic work such as cleaning and baby-sitting for the professional workforce within the compound). Old-timers remember not only working for Shell, but also attending the health center located on the company's premises, obtaining drinkable water from the company, and receiving pipes and other building material from the company. Less than a decade ago, Shell funded the construction of the health center in the neighborhood (a center that employs seven doctors and two nurses and has a 24-hour guard and an ambulance, something that is quite uncommon in poor neighborhoods throughout the country). Although, after automation of many of its operations, Shell is no longer the main employer in the community, it still provides jobs to residents, young and old. Furthermore, Shell routinely gives grants to the local school in what a company engineer we interviewed defined as a 'social performance plan.' The company also funds a nutritional program for poor mothers that includes the distribution of food; computing classes for local students (held inside the Shell compound); windows, paint, and heaters for the school building; the end-of-the-year trip for graduating classes of the local school;

t-shirts with the Shell logo for student soccer, volleyball, and handball teams; and toys for the school kids during the celebration of Children's Day. Through its community relations division the company seeks to follow what a former municipal official calls a 'good neighbor policy.' In some positive ways, then, Shell's presence undoubtedly distinguishes Flammable from other poor communities.

However, Flammable is also different from other destitute neighborhoods throughout Buenos Aires in the extent (and known effects) of its air, water, and soil pollution. Experts from both the local government and Shell agree that, given the air quality associated with the compound's industrial activities, the area is unsuitable for human residence. The place has also been used as a dumping ground by many nearby companies. It is still used as an open-air waste disposal site for subcontractors who illegally dump garbage in the area (as we witnessed on several occasions during our field-work). Many of the pipes that connect homes to the city water supply are plastic; defects in the joints and breaks allow the toxins in the soil to enter the stream of the officially defined 'potable water.' A nauseating stench often comes from these garbage disposal sites, from putrid waters filled with this same garbage, and from the chemicals stored and processed in the compound.



Figure 4 'It's all dirty ...'. Photo taken by Carolina, Ninth Grade, Flammable School.



Figure 5 'This is my aunt's backyard'. Photo taken by Yesica, Ninth Grade, Flammable School.

One epidemiological study compared a sample of children between seven and 11 years old living in Flammable with a control population living in another poor neighborhood with similar socio-economic characteristics but lower levels of exposure to industrial activities (PAE, 2003). In both neighborhoods, the study found, children are exposed to chromium and benzene (both known carcinogens) and to toluene. But lead in their bodies, 'the mother of all industrial poisons ... the paradigmatic toxin [linking] industrial and environmental disease' (Markowitz and Rosner, 2002: 137), distinguishes the children of Flammable from the rest. Fifty percent of the children tested in this neighborhood had higher-than-normal blood levels of lead (against 17 percent in the control population).⁵ Not surprisingly, given what we know about the effects of lead in children, the study found lower-than-average IQ among Flammable children and a higher percentage of neurobehavioral problems.⁶ The study also found strong statistical associations between frequent headaches and neurological symptoms, learning problems, and hyperactivity in school. Flammable children also reported more dermatological problems (eye irritation, skin infections, eruptions, and allergies), respiratory problems (coughs and bronchospasms), neurological problems (hyperactivity) and sore throats and headaches.



Figure 6 An open-air dumping site. Photo taken by Nicolas and Manuela, Ninth Grade, Flammable School.

Where does the lead come from? The study is inconclusive. Lead in the air of Flammable is two and a half times higher than the state threshold. The small river that borders the shantytown is also contaminated with lead (and chromium). Experts also point to the material buried in the ground on which the children play as another possible source of lead poisoning. They also told us that, for a long time before laws regulating toxic waste disposal existed, the companies within the compound used Flammable as a free dumping zone. Lead, in other words, might be coming from everywhere.

Toxic confusion

How do Flammable residents make sense of their surroundings? How much do they know about their toxic habitat? As we foreshadowed, there is clearly no single, monolithic, 'Flammable point of view' on pollution and its health-related effects. Perceptions range from outright denial to critical awareness, from doubts to deep-felt convictions. These perceptions are sometimes factually accurate, other times completely mistaken. These perceptions, furthermore, sometimes co-exist within the same individuals.

Some people are certain about the extent of air pollution in their neighborhood but (wrongly) displace the issue of lead poisoning to the nearby shantytown. Some others are highly critical of 'all the contamination' produced by the companies inside the compound but are incorrect about the sources of pollution. Others still seem unaware of their own hazardous practices regarding landfill. Despite all this diversity, we were able to identify some common themes which point to the existence of widespread confusion and uncertainty regarding sources, extent, and effects of industrial pollution.

With the black and white smoke coming out from the surrounding smokestacks, with the constant noise of alarms and heavy trucks, with the random odors of gas or other pungent substances, with the surrounding garbage and dirt swamplands, it is hard for anybody in Flammable to deny that, as many a neighbor told us, 'there is something here.' As we were repeatedly told (and experienced ourselves): 'Oftentimes you have to go inside the house, you can't be outside, it stinks ...' And yet, when residents have to talk about the specifics of contamination, when they have to put a name to the sources, location, and contents of pollution, things get murky. Doubts and mistakes also abound when neighbors speculate out loud about the deleterious health effects of pollution.

Oil, for example, is said to contaminate water streams; it is also said to be harmless (the real problem not being the oil refinery but the nearby storages of chemical substances); the Shell refinery is believed to be completely safe ('it is the safest plant in the world') or highly contaminating ('Shell is killing us ...', 'They give presents to cover contamination'); the coal processing plant located inside the compound is seen as poisonous ('a cancer factory') or innocuous ('because nothing is vented into the air'). With lead, however, discrepancies take a different form. Nobody denies that lead is harmful but most displace it elsewhere: it is not located in the neighborhood but in the poorest and newest part of the shantytown; it is not stored in their (or their children's) bodies but in those of the most destitute shantydwellers whose 'kids play barefoot,' who 'do not wash their hands,' and who 'bathe in dirty waters.' Rather than the environment itself, permissive mothers are, in this way of reasoning, those responsible for exposing children to lead.

The following two interview excerpts summarize hours of conversations with neighbors. García and Irma are in their 70s and have been living in the neighborhood for the last 50 years; Silvia is in her 60s and was born and raised in the neighborhood:

García: I don't know, I don't know what contamination people are talking about. They blame the coal [coke] plant, but the whole [industrial] process is a closed-circuit, nothing is vented into the air. Years ago, the coal was all

processed in the open ... not even a single coal worker is alive, that was unhealthy ...

Irma: But not now ...

García: No, not now. Listen, I worked there [at Shell] for 38 years ... they used to make gasoline with lead, but not anymore. I worked at the gasoline tanks, and I never got sick ... If this [neighborhood] were contaminated, imagine: she's been here since 1944, and I have lived here since 1950, we would be dead or sick but we have never been sick from contamination [*no tuvimos ninguna enfermedad de la contaminación*] ...

Silvia: The lead-poisoned kids are all from there [the newest and most destitute part of the shantytown]. None of the kids from here have anything ... They [the children] get sick because of all the garbage that they collect.

It is a matter of common knowledge among neighbors that there is 'something' in, mostly, the air – there is less certainty or awareness about ground and water pollution. But there is a chasm between what people know (or say they know) and how what they know is interpreted (Vaughan, 1990, 1998; Eden, 2004). One way of thinking about and living with pollution acknowledges its existence but denies its seriousness. Many adults in Flammable use their own bodies to support that belief; after all they 'never had any health problems'. As old-time neighbor Francisco puts it: 'I raised three kids here. I myself have been inside many of the plants and I don't have any [health] problems.' Another viewpoint expresses doubts concerning contamination's true effects because 'they don't know yet.' Countless times we heard neighbors saying that they don't really know if they are 'contaminated' – as if it were a black and white proposition, something that you have or you do not have – because they have not yet been 'tested.'

Some people acknowledge contradictory things; they know the extent and severity of pollution but they also point a blaming finger at the victims' own behavior as the true source of the contamination. Marga, the president of the local improvement association, illustrates what we think is a generalized uncertainty. As do many others, Marga thinks 'contamination is terrible. If you were to think about it and start mulling over it, you'd want to leave this place right away.' She thinks of the compound as 'a world apart. Most of the time you have no idea what's going on inside' (just as every single person we talked to, she does not know the number of plants located within the petrochemical compound). In talking about Flammable's past, Marga is convinced that the small farms that used to abound in the neighborhood disappeared because of all the industrial waste: 'the soil was all contaminated, it stopped being useful.' However, when speaking about the present, she expresses doubts about the true origin and form of lead contamination: 'We should not put all the blame in those at the top [i.e. in

the government and/or the compound]. Parents are also responsible because they never cared to attend to their children and to see what could be done.' She also says that she has many 'doubts' regarding the degree of contamination: 'I don't really know if I am polluted or not ... I don't even know what the symptoms are.'

'So, you don't really know if you have something,' says Felisa, who has been living in the neighborhood for 30 years, and many of her neighbors – despite being surrounded by foul smells of chemicals and garbage, despite knowing the place is contaminated – agree: Flammable might be contaminated, but I'm not – or, I don't know 'yet.' Many residents concur that the neighborhood is contaminated but they have diverse interpretations regarding the extent of contamination (its spatial distribution) and its concrete (health) effects. From the poisoned point(s) of view, pollution facts are sometimes perceived accurately, sometimes in a skewed way; other times they are either *mistaken* (contrary to a widely held belief, lead contamination is not clustered in the poorest section of the shantytown), some times they are *unnoticed* (as when their own risk-perpetuating landfill practices are overlooked), other times *misinterpreted* (as when they use their own bodies to challenge the true impact of toxics). This widespread confusion and uncertainty is making Flammable inhabitants wait.

Residents in Flammable share with all dominated groups a similar fate. They are condemned to live in a time oriented to others, obliged, as Pierre Bourdieu (2000: 237) so eloquently puts it, 'to wait for everything to come from others.' In Flammable this waiting takes an exaggerated form and, for two years now, we have been documenting all the behaviors and opinions that illustrate this exercise of power: appointments with lawyers to discuss possible compensation are constantly deferred; lead-screenings and other blood tests are routinely delayed by the local state; hopes for relocation by state authorities are falsely raised and dashed. Residents wait – for a new relocation plan, for a new lawyer, for a court ruling, for a new test.

Typical is Marta. She came to Villa Inflamable in 1995. She organizes a soup kitchen at her house with funds provided by the local state and some of the compound companies. She has a daughter and three sons – one of them, Ezequiel, was tested during the PAE study and is lead-poisoned. She explains:

Ezequiel is ashamed of going out with shorts because of all the pimples. He has small scars all over him. Thank God, he never had them on his face. I bought him long pants so that he can cover the pimples. He doesn't sleep at night. It itches all over his back, his arms, his legs. Manuel [second son] is now getting rashes too. I am now waiting for the lawyers. They are coming to do some studies, but I don't know what's going on because they haven't come yet. I call them and they don't come. ...

Before this one, we had some other lawyers ... Doctor Palacio and some others. They came, we signed [the power of attorney], we had meetings, they explained stuff to us, and then, all of a sudden, they disappeared. They were from the city. A neighbor brought them to the neighborhood. I think it was through some local politician. They never showed up again [in 2001]. We went to La Plata [the capital of the state of Buenos Aires] to have blood tests done. We then got together with a group of other mothers and we got another lawyer. His name was Doctor Isla. We had meetings at my house, we signed papers, they explained stuff to us. We came and went all over. They told us that we could get money from the companies. Isla disappeared, he never came back. One day, Doctor Russo came by. He came in November of last year [2005]. Again, he disappeared. But he came back, this one did return. I trust him. He stopped calling us during the last six months ... but he is very responsible. He had four families tested. But we don't know the results. Apparently, he called one neighbor and told him that the blood tests have to be done again. I don't know. It's been months since he last came. I'm going to call him [...] There is shit in the water, we have everything on our side [to win the lawsuit]. The lawyer filed a lawsuit because we are unprotected here. The lawyer told me: 'Marta, get ready, because you are going to have a good reward. We are about to win the lawsuit.' ...

We are going to be relocated, this year. Municipal officials say that by 2007 nobody should be living here. The owners of the land will pay us, they are going to give us a house. There are not going to be any more houses left here. This place is all going to be green space and [there will be] industrial plants. All the companies, with the exception of Petrobras, put the money down [so that we can be relocated]. All the residents of Flammable are going to be removed ... but where are we going to go? They can't kick us out. If they give me 30 thousand pesos, I'll move to Areco [in the province of Buenos Aires] with my cousin. It's pretty there [...] But, if they evict me, I don't know where I will go. What shall I do? I don't have a place to go. I don't know, I don't know.

The ethnography of not-knowing

Contemporary urban ethnography in the Americas has done a splendid job in describing and explaining the causes and experiential forms of the sufferings endured by dwellers in ghettos, inner-cities, *favelas*, *villas*, *comunas* and other territories of urban relegation. Even in the midst of their distress most of the protagonists of urban ethnography remain consistent and aware subjects – actors usually *know* something that we do not. We rarely read

ethnographic texts in which people hesitate, make mistakes, and/or are plagued by contradictions – subjects who know *and* don't know.

How are we to understand and explain widespread error, blindness, and confusion? How come, in the midst of a slow-motion toxic disaster, where children have record levels of lead in their blood-streams, where the air and water residents breathe and drink is highly contaminated, Flammable dwellers allow themselves to doubt about (or, worse, deny) the 'hard facts' of industrial pollution?

There are important external contributions to a particular nature of doubt, uncertainty and not-knowing in the relationship between habitus and habitat. Toxic contamination is 'inherently uncertain' (Edelstein, 2003): the body's past exposures, the dose-response relationship, synergistic effects, and etiological ambiguity all contribute to the problem of ambiguity in both toxicology and epidemiology (Brown et al., 2000). In Flammable, this intrinsic uncertainty is amplified by a *labor of confusion* performed, not necessarily intentionally, by a series of interconnected actors: *state officials* who mandate blood tests and then suspend them without notice and who routinely raise the issue of relocation and then (and as frequently) suspend it; *petrochemical companies* that provide funds for the local health center, assert (through authoritative spokespersons) that the area is 'unfit for human residence' and, with equal emphasis, that shanty-dwellers' own behaviors are responsible for their poisoning ('they smoke inside their homes, they don't wash their hands,' as we were told by a Shell engineer); *doctors* at the local health center who deny the existence of contamination-related illnesses ('what you find here, you'll find in any other area where the poor live,' we were repeatedly told) but who admit that 'there's something strange here' and tell mothers of lead-poisoned children that, if their loved ones are to be cured, they have to 'leave the neighborhood for good'; *media reporters* who randomly come into the neighborhood, focus on the most extreme aspects of life here, and then broadcast the news in the authoritative language of journalism (with the help of occasional experts), emphasizing how improbable life is in this 'inferno' (as the title of one such report reads); and *lawyers* who frequently come to the neighborhood in search of potential clients, raise the expectations of vulnerable residents who have 'everything on their side' because 'there is shit in the water' and encourage them to wait for a 'good reward', in many cases dreamed to be in the thousands of dollars.

Equally important, though, as these external contributions is the tragedy charted by our ethnography of the usually unacknowledged import of Bourdieu's famous assertion (2000: 140) that 'we are disposed because we are exposed', which can here be seen to be literally true. Exposure to contamination, we argue, engenders a set of confused, contradictory, and mistaken understandings that translate into a long, impotent, and uncertain

waiting time, a time oriented to others shared by all dominated groups but none with stakes so high and lethally imprinted within their very bodies as the residents of Flammable.

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Notes

- 1 Two recent review essays attest for the fact that the contaminated spaces where the urban poor live is a marginal (if not absent) concern among researchers: a recent comprehensive review of studies of poverty and inequality in Latin America published in the *Annual Review of Sociology* (Hoffman and Centeno, 2003) and a symposium on the history and state of the studies of marginality and exclusion in Latin America published in *Latin American Research Review* (González de la Rocha et al., 2004) make no mention of environmental factors as key dimensions of material deprivation.
- 2 In July 2005, we asked 13 students of the ninth grade in the local school to divide themselves into groups (five groups of two students each and one of three students) and gave them disposable cameras containing 27 exposures each. They were told to take half of the pictures on things they liked about the neighborhood and half on things they did not like. We gave them no further instructions. They all returned the cameras, providing a total number of 134 pictures. We will use a selection of the pictures (those that better represent the recurrent themes) and excerpts from the interviews we conducted with these youngsters to introduce the reader to the space of Flammable. For a more thorough examination of youngsters' pictures, see Auyero and Swistun (forthcoming).
- 3 Françoise Zonabend's (1993) study of the experiences of those living alongside a high-risk nuclear waste reprocessing plant (a combination of selective blindness, denial, indifference, fatalism, 'not wanting to know' and fear) is one of the few exceptions.

- 4 The name 'Flammable' is quite recent. On 28 June 1984, there was a fire in the *Perito Moreno* oil ship harbored in the nearby canal. The ship exploded and produced, in the words of an old resident, the 'highest flames I've ever seen.' After the accident, remembered by everyone as a traumatic experience, companies in the compound built a new (and according to experts, safer) dock exclusively for flammable products; a dock that soon gave a new name to the adjacent community – formerly known simply as 'the coast.'
- 5 10 ug/del (micrograms per deciliter) is now considered to be a normal blood level of lead. On the history of lead epidemiology, see Berney (2000) and Widener (2000). On the history of 'deceit and denial' concerning the pernicious effects of lead, see Markowitz and Rosner (2002). See also Warren (2000).
- 6 Lead accumulates in the human body (in the blood, in tissues and bones) in proportion to the amount of lead found in the environment. Lead in the environment results from the use of lead in industry. Lead absorption (measured in feces, urine, blood, and other tissues) is the indication of exposure and poisoning (Berney, 2000). Lead is a poison that affects the brain, kidneys, and the nervous system in many subtle ways and at low levels. Extremely high exposures to lead 'cause encephalopathy and death, lower doses cause severe retardation, and lesser doses lead to school problems, small but significant shifts in IQ, and other measures of central nervous system function' (Berney, 2000: 205).

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