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# Frayser's Phantom Dump:

## The Environmental Justice Case that Almost Happened

by

**Emma Sidney Donnelly-Bullington**

An Honors Capstone

submitted in partial fulfillment of the requirements

for the Honors Diploma

to

The Honors College

of

The University of Alabama in Huntsville

April 23, 2019

Honors Capstone Director: Dr. Kyle Knight

Associate Professor of Sociology

 4/22/2019

Student

Date

 4/22/2019

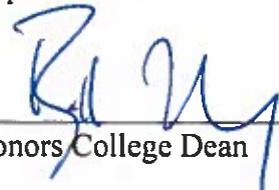
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Student Signature

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## **Dedication**

This paper is dedicated to my parents  
who encouraged me to pursue my interdisciplinary passions.

### **Abstract**

The community of Frayser in Memphis, Tennessee was once a thriving middle-class, racially diverse industrial area, but in the 1970s and 1980s the industrial employers shut down and fear of chemical contamination swept through the country, the white population fled, leaving the area financially devastated and fearful of what the industry may have left behind in their neighborhood. Community members began complaining of various medically unexplained symptoms such as rashes and headaches and came to the conclusion that there must be undiscovered industrial waste contaminating the soil in Frayser. Several agencies conducted studies and experiments in the area to determine whether chemical contamination was to blame, but no evidence was found. This did not change the fact that Frayser residents were experiencing physical symptoms, however. Without an obvious physical cause of the illness, the situation in Frayser was labelled a case of hysterical contagion – a form of collective behavior or mass hysteria in which a population experiences physical symptoms of illness without a physical cause. Several factors contributed to the psychogenic illness experienced by the Frayser community, such as the response of local media sources, the failure of public officials to effectively communicate with the residents, the discovery of hazardous waste in a dump in a nearby part of Memphis, and the social context of Frayser within Memphis. This situation should be viewed as an environmental justice issue despite the lack of obvious chemical contamination because environmental justice activism has expanded the definition of environment to include a broader understanding of the environment of one's life.

## Introduction

In the 1920s, a ditch that was the result of failed construction of a canal between the upper and lower Niagara Rivers in Niagara Falls, New York began being used as a chemical dumpsite. This land was sold to the city in 1953 by the Hooker Chemical Company and the area was developed into a residential neighborhood with a school. Twenty-five years later, it was discovered that the industrial chemicals buried in drum containers in the Love Canal neighborhood were leaching into the soil. The hazardous waste was so prevalent in the neighborhood that it could be seen as puddles in residents' yards and basements as well as on the school grounds. Children experienced burns from playing outside and others were born with birth defects. Residents were evacuated and over 200 families were relocated from the contaminated areas (Beck 1979).

The events in the Love Canal neighborhood in Niagara Falls, New York brought the issue of toxic waste to the public stage. This environmental disaster led to the growth of the anti-toxics movement and ultimately the environmental justice movement. It also led to several influential policy changes that would affect the environmental justice movement even today. After Love Canal grabbed national attention, public fear regarding undocumented toxic waste dumping grew, as any neighborhood could have been the next Love Canal. The U.S. Environmental Protection Agency did not believe that the Love Canal disaster would be the last of its kind, rather they expected to find "hundreds of such chemical dumpsites across the Nation" and that a similar situation "could happen again – anywhere in this country – unless we move expeditiously to prevent it" (Beck 1979). This anxiety led communities across the United States to fear that their neighborhood would be the next Love Canal – that chemical waste was lurking beneath the ground surface of their homes, slowly leaching into the soil and water.

In the early 1980s in Memphis, Tennessee, the Frayser community experienced the fear of uncovering old dumping of toxic waste. Frayser residents were suddenly thrown into extreme fear after finding that their neighbors were suffering from miscellaneous physical illnesses (Schwartz et al. 1985). After learning that community members were experiencing similar physical ailments, including headaches, nausea, and skin rashes, the community became increasingly concerned that there was a “huge, as yet undiscovered dumpsite” causing these problems (Schwartz et al. 1985:59). Several factors contributed to the plausibility of such a site being located in Frayser. The news media served to promote concern for the issue by spreading headlines such as “SICKNESS: WAY OF LIFE IN FRAYSER NEIGHBORHOOD” and “SOMETHING IS MAKING THESE PEOPLE SICK,” despite these reports being unscientific in nature, depending on biased survey rather than scientific studies (Schwartz et al. 1985:69; Omang 1980). The responses of various organizations and agencies in Memphis also contributed to the belief that there was undiscovered toxic waste in Frayser. The responses of the health departments could have easily been seen by residents as an attempted cover-up of chemical contamination, decreasing the community’s trust in these agencies (Schwartz et al. 1985). Additionally, a municipal dump located elsewhere in Memphis was found to be contaminated with pesticides, justifying the fear being experienced in Frayser. Frayser residents soon “found themselves in the middle of a complicated controversy over which no one really [seemed] to have a handle” (U.S. Congress 1980:5).

Ultimately, no evidence of a dumpsite was discovered and it was determined that the residents of Frayser experienced a form of collective behavior called “hysterical contagion” – residents experienced physical symptoms of contamination without a discovered physical cause (Smelser 1964; Staudenayer 1999). However, this is not to say that the residents were

overreacting or that they were hysterical in the colloquial sense of the word. Instead, they had a “logical and reasonable response to both the information available and to the behavior of the organizations responsible for protecting community health” (Schwartz et al. 1985:72). Smelser’s (1964) “value-added” approach to collective behavior emphasizes that individual stressors may not be sufficient to cause a situation of collective behavior, but several stressors and conditions combined can create a context within which a community may experience some form of mass hysteria or other collective behavior. This was the case in Frayser; the context within which Frayser residents experienced life made contamination plausible and believable and ultimately led to psychogenic illness in many residents. Given Memphis’s and the Frayser community’s history, along with the context in which this situation arose, an environmental disaster with environmental justice implications was entirely plausible.

### **Literature Review**

According to the U.S. Environmental Protection Agency, environmental justice is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” (U.S. EPA). It is the idea that the environment in which people “live, work, and play” should be safe, and that people have a right to know about and be involved in environmental decisions that happen in these places (Novotny 2000:38). The environmental justice movement is relatively new when it comes to sociopolitical movements. This is in part due to advancement of knowledge regarding consumer and public safety. Chemicals which could once be dumped without special treatment are now known to be carcinogens, but it is too late to change what has been done. The environmental justice movement grew out of small communities discovering environmental hazards in their area.

Grassroots activism has been a defining characteristic of the environmental justice movement since the beginning. This is due to its growth out of other social movements such as the Civil Rights Movement and its overwhelming early application to rural communities and later focus on urban neighborhoods. The Civil Rights Movement largely depended on grassroots activism and as the environmental justice movement grew, it was initially led by “church-based civil rights leaders, seasoned in the Civil Rights Movement” (Cole and Foster 2001:20). The church, especially the United Church of Christ, had a large impact on the Civil Rights Movement and ultimately on the environmental justice movement. In fact, the United Church of Christ Commission for Racial Justice conducted a study as a result of the PCB landfill in Warren County, North Carolina that connected “race with increased likelihood of living close to hazardous facilities and toxic waste sites” (Taylor 2014:19). PCBs are organic chlorine compounds that are probably human carcinogens according to the EPA. Evidence suggests a link between exposure to PCBs and increased risk of some cancer. After thousands of gallons of PCBs were illegally dumped along a rural highway in North Carolina, the necessary cleanup and disposal of the PCB contaminated soil created controversy that would lead to the formal conceptual linkage between race and waste disposal. The majority black residents of rural Warren County, NC opposed the plan to bury the contaminated soil in a local landfill. The events of this controversy contributed to the United Church of Christ getting involved with the environmental justice in a significant way by conducting a study which ultimately made the connection between race and proximity to environmental hazards. Civil rights activists contributed their experience with direct action, their understanding that “the disproportionate impact of environmental hazards” was based on systematic racial prejudice, and “the experience of empowerment through political action” (Cole and Foster 2001:21). Grassroots activism, as

employed by the Civil Rights Movement, is particularly effective for the environmental justice movement due to the specific localized effects of environmental hazards. Environmental justice makes “conceptual linkages between seemingly different struggles,” but “grassroots activists are often fighting for their health and homes” (Cole and Foster 2001:32-33). The problems created by environmental hazards disproportionately affect specific minority communities, so grassroots activists grow out of these communities as they fight to protect themselves, their loved ones, and their communities.

Environmental inequality is the idea that the goal of environmental justice has not been met – that some communities and populations are treated unfairly in industrial facility siting and other environmental decisions. Saha and Mohai (2005) identify several distinct models through which one can view environmental inequality, which include a sociopolitical model and a racial discrimination model. These models of environmental inequality are important for understanding the context of the situation in Frayser. The sociopolitical model claims that industrial facility siting follows the path of least resistance – industry specifically sites facilities in neighborhoods that are least likely to resist due to structural disadvantages. These communities may be less educated about the risks associated with living near industrial facilities, they may be convinced that industrial facilities will bring economic revitalization to the community, and they may experience little community efficacy required for effectively resisting these facilities (Pastor et al. 2001). This model holds that environmental inequality is due to social and political factors that affect the siting of these facilities and that affect the communities’ ability to resist the siting. Saha and Mohai’s (2005) longitudinal study supports this model because the social and political climate changes over time and so has the framework for siting of industrial facilities and the context in which hazardous waste is viewed by the public. According to Saha and Mohai, the

siting of industrial facilities has historically followed this path of least resistance – this explains why facilities tended to be in affluent and white areas before the NIMBY era and Love Canal disaster but shifted to low income and minority areas after the NIMBY era and Love Canal disaster. This model holds that the sociopolitical climate changes over time, which affects the way that industrial facilities are sited and viewed by the public. The industrial facilities in Frayser were sited when the area was still a middle-class suburban area and the benefits of the industry (jobs) seemed to outweigh the disadvantages (environmental hazards). After Love Canal and the closure of the industry in Frayser, the white middle-class population left the area, leaving the primarily poor black population to bear the burden of industry without reaping any of the benefits.

The racial discrimination model explains that environmental inequality is due to environmental racism; that race itself is the most important factor in predicting the location of industrial facilities. This model has two main branches: intentional racism and institutional racism. Intentional racism as it relates to environmental racism claims that industrial facilities are consciously and intentionally sited in minority communities because of “racist intent in the siting process itself” and because of racial prejudices among decision makers (Downey 1998:769; Downey 2005). This is historically how the judicial branch of the U.S. government has viewed racial discrimination even though it may not reflect the reality of racism in America, causing trouble when it comes to proving environmental racism and advancing environmental justice in the courts. The idea of institutional racism, on the other hand, claims that “the normal, non-intentionally discriminatory operation of important social institutions leads to racially inequitable outcomes” (Downey 1998:770). Rather than being conscious and intentional, institutional racism is often unconscious and unintentional. Institutional racism has grown out of a long history of

racial discrimination. As described by Saha and Mohai (2005), this model of racial discrimination includes the history of discrimination in different aspects of life such as housing, education, and employment. This model claims that these factors of racial discrimination play a role in the location of industrial facilities. The siting of these facilities happened before the demographic change of the neighborhood, so racial discrimination may not have had a direct impact on the siting of the industry. However, the context of racial discrimination and inequality affected the treatment of the community when the facilities closed their doors. The community was left with no jobs and the distress of living near potentially contaminated areas from industrial waste and dumping. These different models provide frameworks within which one can analyze situations of environmental injustice.

## **Background**

### **Memphis History**

Memphis, Tennessee is located on the Fourth Chickasaw Bluff along the Mississippi River at the southwestern corner of Tennessee. The city grew slowly in the early 1800s, boomed during the 1850s and early 1860s, but suffered during the Civil War and Reconstruction era. There was significant white backlash after the fall of the Confederacy, leading to race riots in 1866. The city further suffered from yellow fever epidemics in the 1860s and 1870s, leading to the loss of the city's charter in 1879 as the death rate and fleeing population led to further financial decline; home rule would not be restored until 1893. Memphis recovered throughout the late 1800s and early 1900s, but quickly became known as the murder capital of the country. While Memphis is also known for Elvis Presley, St. Jude Hospital, and Piggly-Wiggly, the city is most famous for its somber role in the Civil Rights Movement of the 1960s (Harkins 2017).

Memphis, Tennessee is one of the major landmarks of the American Civil Rights Movement – it was there that Dr. Martin Luther King, Jr. was famously assassinated while supporting the Sanitation Workers' Strike in 1968. While King died before the bulk of the environmental justice movement, his work in this area heavily contributed to the movement. Historically, the working conditions experienced by sanitation workers have been highly dangerous. Fatal accidents and crippling injuries are not unusual in the current day – they were even more common before the Sanitation Workers' Strike. Sanitation work has also been historically done by African-American community members. Even within the department, “black workers were subservient to the white workers [and] the most dangerous and dirty work was done by black workers” (Zimring 2015:195). When two African American men were crushed to death by a hydraulic ram on a garbage truck, the already infuriated work force walked out

against the wishes of the union. The then mayor Henry Loeb refused to negotiate, but they quickly learned that white people did not want to step up to take the black workers' spots during the strike. The government and the citizens of Memphis considered sanitation work to be "dirty work, done by inferiors as far out of sight and out of mind as possible" (Zimring 2015:203).

The strike organizers' initial demands included safer working conditions and higher pay. Dr. Martin Luther King, Jr. got involved with the Sanitation Workers' Strike because he believed that it aligned with his Poor People's Campaign. He believed that the "poor working conditions and benefits that this exclusively African American workforce put up with while removing the wastes of the city of Memphis were as apt a setting for [his] Poor People's Campaign as any he had found" (Zimring 2015:206). Dr. King's support of and involvement with the strike quickly brought the issue to national attention. A march that took place soon after Dr. King first visited Memphis in March 1968 turned violent as Memphis police and protestors clashed. Dr. King opposed the violence, and his reputation was hurt by this violent encounter. King returned to Memphis in April and delivered his "I've Been to the Mountaintop" speech the day before he was shot and killed on the balcony of the Lorraine Motel where he was staying.

The death of Dr. King sent shockwaves through the city, the country, and the world. Immediately following his death, the newly-widowed Coretta Scott King led a march through Memphis. Dr. King's death – combined with pressure from President Johnson and national riots in the wake of his death – ultimately led to the recognition of the labor union's right to organize and negotiate for better working conditions. Despite this victory, environmental inequality was still rampant in the city. While the terminology would not be defined for another decade, Dr. King's involvement with and death during the Memphis Sanitation Workers' Strike contributed to the environmental justice movement and the idea of environmental racism. Zimring notes that

“the words ‘environmental justice’ did not pass through any sanitation worker’s lips in 1968,” but after the strike in Memphis, environmental inequalities in other parts of the country were reframed as civil rights issues (2015:212). Memphis’s history of civil rights and blossoming environmental justice put Memphis on the map of history.

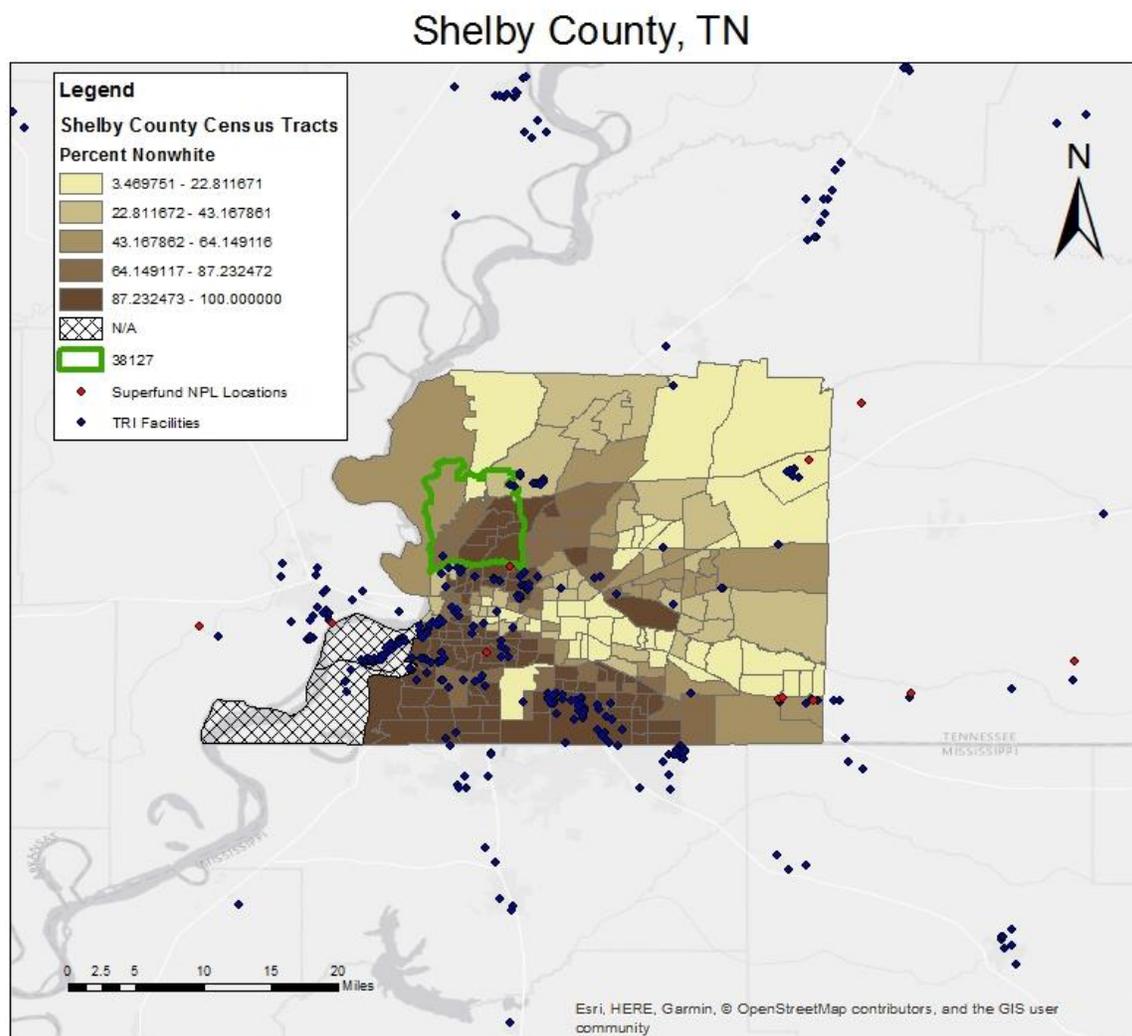
### **Frayser History**

Frayser is a neighborhood in the northwest part of Memphis. It began as a small middle-class suburban area in the late 1800s. The population of Frayser grew throughout the 1950s, 1960s, and 1970s as industrial activity in the area increased, growing from 2,450 in 1940 to 47,299 in 1980 (Graduate Program 2003:3). Firestone opened a tire and rubber factory in Frayser in 1937 and International Harvester opened a manufacturing plant in Frayser in 1948. These two industrial facilities quickly became the largest employers in the area, with peak employment of around 3,000 each (Greaney 2017). Frayser grew as a community in the 1950s and the City of Memphis annexed the area in 1958.

The economic growth experienced in Frayser was short-lived, however. In the 1980s, many of the industrial employers in the area closed, causing economic decline that led those who could afford to leave to do so. The Firestone factory closed its doors in 1983 and the Harvester plant closed in 1985. Frayser “transition[ed] from its white, blue-collar character” to an economically struggling neighborhood with a high crime rate (Graduate Program 2003:4). Before the industrial flight, the community’s median income was significantly higher than the median income of the larger area, but when the industrial base left, the median income dropped (Frayser CDC). As the local economy struggled, Frayser became the “foreclosure capital of Tennessee” and crime rates rose (Frayser CDC). The departure of industry in Frayser left the area with no jobs, but with the threat of whatever contaminants the industry may have left

behind. The area was left to bear the burden of industrialization without reaping any of the benefits.

Figure 1 below shows a map of Shelby County, Tennessee – which is made up of Memphis and its surrounding suburbs – broken down into census tracts.



*Figure 1: Shelby County, TN census tracts by nonwhite population percentage*

The green outline on the map above indicates a general boundary of the Frayser area, as defined by the zip code 38127. The red points indicate EPA Superfund National Priority List locations and the blue points indicate Toxic Release Inventory facilities (U.S. Department of Health and

Human Services). The varying color scheme indicates the nonwhite percentage of the population within each census tract. This was determined using data from the American Community Survey from 2016 (U.S. Census Bureau). Recent demographic data was used as opposed to historical data because Frayser in 1980 was experiencing demographic changes that would ultimately result in the area becoming primarily African American. The 2016 data allows one to assess the demographic changes that occurred and how this left black communities with environmental hazards after white flight. The white percentage of each tract was determined by dividing the number of white residents by the total population count. The nonwhite percentage was then calculated by subtracting that value from one. Nonwhite population therefore includes all races and combinations of races besides white alone. Memphis is predominantly African American, so it is a safe assumption that nonwhite means black in most parts of Memphis and assessment of census data supports this assumption.

The 19 tracts that are completely or partially within the Frayser zip code (38127) have an average population that is 81% nonwhite with a maximum of 100% nonwhite and a minimum of 17% nonwhite. The tract that is primarily white within this zip code is an outlier that can be explained by the tract only being partially within Frayser and being largely rural compared to the rest of the area. The 6 that are completely within the 38127 zip code have an average population that is 89% nonwhite with a maximum of 99% nonwhite and a minimum of 74% nonwhite. These six tracts may be more representative of the average Frayser population. For reference, the average nonwhite population for all of Shelby County is 63% and the affluent Germantown neighborhood (as defined by the zip code 38138) has an average nonwhite population of 13%. This shows that the Frayser community has a nonwhite population higher than that of the average Shelby County neighborhood population.

Upon initial inspection of this map of Memphis, it can be seen that the majority of the environmental hazards as defined by TRI and Superfund NPL facilities are located in census tracts with mid to high percentages of nonwhite populations or in census tracts with no population at all. There are only five TRI facilities within the 38127 zip code that is a rough outline of the Frayser community, but there are 14 TRI facilities and 1 Superfund NPL facility within half a mile of the community and 17 TRI facilities and 1 Superfund NPL facility within a mile of the community. By comparison, the Germantown zip code 38138 does not contain any TRI or Superfund NPL facilities and there are none within half a mile or a mile or the zip code. The closest facility is a TRI facility just over a mile away from the community – on the boundary between two census tracts with 51% and 79% nonwhite populations.

### **The “Phantom Dump”**

While Frayser was experiencing economic growth due to the industrial development, industries dumped chemical waste into the sewer system and into municipal dumps (Harris 1983). At that point in time, there were no state or federal regulations regarding the disposal of hazardous waste, so their dumping of excess materials was understandable, albeit reckless. When these industries closed in the 1980s, the chemical waste remained. After the events at Love Canal in Niagara Falls, New York, many communities were worried that they would find previously undiscovered hazardous waste in their own neighborhoods – Frayser was one such community. It began in 1976 when Frayser resident Mrs. Pounds contacted the Memphis-Shelby County Health Department complaining of miscellaneous physical symptoms that her children and pet dog began experiencing. She believed that the mysterious illness was due to some sort of chemical exposure, but the Health Department found no evidence of contamination. Remaining convinced that her family had experienced chemical exposure, Mrs. Pounds contacted the Environmental

Protection Agency in 1979 to further search for evidence of contamination, though the Health Department failed to find any (Harris 1983). When word spread that there was potentially undiscovered hazardous waste in Frayser, panic began to set in. Neighbors discovered that they were experiencing similar ailments and symptoms. The entire community soon became convinced that Frayser was built on top of an old hazardous waste dump, with little evidence besides personal anecdotes.

Several factors contributed to the community's reaction to the possibility of being exposed to hazardous waste. The major factors included the response of media sources, the responses of public officials, the discovery of hazardous waste in a different dump in Memphis, and the social context of Frayser within Memphis. The mixture of all of these factors led to a reasonably panicked response from Frayser residents. The news media played an important role in this issue. As word got out that there was potentially hazardous waste in Frayser that was affecting the health of its residents, the media ran with the story. Several news outlets emphasized the idea that there was some sort of conspiracy or cover up of industrial chemical contamination in Frayser (Omang 1980). The industrial employers in Frayser had once been seen as a positive force in the neighborhood, but as the industry began to struggle in the 1970s and 1980s, ultimately closing their doors and leaving the neighborhood financially unstable, it was easy to believe that there could have been other ways that the industry could have betrayed the community. The lack of trust in the local industry made stories of conspiracy or cover up plausible, so local media stories were quickly believed. Local newspapers conducted unscientific surveys of residents and came to the conclusion that there must be chemical contamination in Frayser and because residents trusted the reporters as unbiased individuals with the public's best interest in mind, these studies were taken as fact (Schwartz et al. 1985; Harris 1983). National

news media picked up the story as well – “ABC television did a special program on the alleged presence of birth defects from chemical contamination in Frayser, ignoring all of the negative test results up to that point” (Harris 1983:186). The media presence in this situation served to spread concern among residents and to promote unscientific reports as fact.

As is the case in many situations of potential chemical contamination, the credibility of public health authorities was questioned during this issue in Frayser (Harris 1983). In this situation, the credibility of the local Health Department, the U.S. Environmental Protection Agency, and the Centers for Disease Control were all questioned by the community because of their inconsistency and lack of communication with the community. Agencies all found consistent results in their studies of potential contamination in Frayser – the local Health Department and the EPA both found no evidence of contamination. Further tests were done despite the fact that prior testing all yielded negative results. While all of these results came back negative, the fact that multiple tests were completed seemed strange to the residents and it was not communicated to them that repeating tests for contamination was common. As more tests for contamination were done, some yielded erroneous results which were communicated to the public, further decaying their trust in the public health agencies. In February of 1980, “the EPA released a preliminary report that a local school-ground was contaminated with pesticides, [but] the laboratory results turned out to be in error; there was no contamination” (Harris 1983:186). Several more reports were released that contained fundamental flaws. The EPA released another report that claimed that “none of the data collected indicate or suggest that chemical wastes were buried at either suspect site” (Sisk 1980:3). The Centers for Disease Control did a survey in April 1980 to determine the validity of the newspaper survey claiming that Frayser residents were experiencing significant health concerns likely due to chemical contamination, but the CDC did

not release the results of this study until several months later. This led the community to further question the public health officials and to view the unclear results of a multitude of studies as some sort of cover up. Finally, in September 1980, Johns Hopkins University was contracted to design an effective study, but by that point, the public's trust in these institutions had been significantly deteriorated. In circumstances where conditions are repeatedly evaluated, the "observation of vigorous investigative activities may reinforce the suspicion that a genuine problem is being covered up" (Jones et al 2000:99). The increased investigation and evaluation also made the probability of obtaining false positive results more likely and attempting to explain that situation to the already anxious public made conspiracy appear even more plausible.

During the same time period, the EPA found evidence of contamination of the soil, groundwater, and pond sediments at the North Hollywood Dump, a municipal dump located less than five miles east of Frayser (Bashor and Borowski 2002). The discovery of this instance of contamination made the possibility of contamination elsewhere in Memphis even more plausible. The events that led up to the contamination of this neighborhood were exactly what Frayser residents feared had happened in their own community – the North Hollywood Dump had been used by chemical companies in the 1950s and 1960s to dump chemical waste and when this was discovered, the potential health effects frightened the population. This situation itself has been explored by some as an environmental justice event – North Memphis and the neighborhood of Hollywood is predominately African American and is "comprised of mixed industrial and low-to-moderate income residential land uses" (Johnson 1996:8). This community was bordered by the polluted Wolf River and the contaminated North Hollywood Dump. This dump became an EPA Superfund cleanup site and was cleaned up. Ultimately, the events in Hollywood can be

seen as a success story of the environmental justice movement, but its discovery served to cause more worry for the residents of Frayser.

### **Hysterical Contagion**

The response of media sources, the responses of public officials, and the discovery of hazardous waste at the North Hollywood Dump all contributed to a case of hysterical contagion in Frayser. Study after study was conducted and ultimately, no physical evidence of an undiscovered dump or chemical contamination was found. After finding no physical evidence of contamination, “behavioral scientists concluded that social contagion was the most plausible explanation for the [physical symptoms]” (Staudenmayer 1999:37). This case follows what is called the social or hysterical contagion model of collective behavior. Collective behavior can be explained by a variety of approaches – Smelser’s “value-added” approach is most applicable in this situation. Smelser (1964) identifies five conditions that are necessary to create an environment in which collective behavior or mass hysteria might occur. These conditions include structural conduciveness, strain, generalized belief, mobilization, and social control. All of these conditions were met in Frayser. Structural conduciveness is the broadest of the conditions and in this case defines the general framework of inequality in which Frayser residents lived. The area was experiencing the demographic changes of white flight and the financial instability of job insecurity as the industry in the area closed its doors. There was already a sense of insecurity that could establish the possibility of panic. The strain in this Frayser was the threat of chemical contamination. The threat was plausible due to the turbulent structural conduciveness and the larger context of the Love Canal disaster. This threat seemed imminent and certain in many places across the country and became a generalized belief in Frayser. This belief was bolstered by the physical symptoms that residents shared. The residents then began to mobilize as they

contacted health officials, who only contributed to the conduciveness of the situation while attempting to regain social control by releasing the negative contamination test results. These five conditions were met in Frayser, allowing for an episode of collective behavior.

The hysterical contagion model of collective behavior has a misleading name – the word hysterical colloquially implies that the reaction was not reasonable or logical, but that is not the case. The community was not simply imagining physical symptoms or pretending to be sick – they were actually experiencing them, but there was seemingly no physical cause. Schwartz et al. (1985) describes hysterical contagion as the following:

In the absence of a physical cause the symptoms are labeled hysterical or psychogenic; it is considered a mass or contagious phenomenon because of the many people experiencing similar symptoms. (63)

The residents of Frayser experienced physical symptoms of chemical contamination after becoming significantly psychologically distressed; they were experiencing “a constellation of symptoms suggestive of organic illness, but without an identifiable cause” (Staudenmayer 1999:36). The idea of living near chemical waste along with the social context in which Frayser residents experienced this fear was distressing enough to cause physical symptoms in residents. The previously discussed factors all played a role in leading to the collective behavior of hysterical contagion; the responses of the media and public officials as well as the discovery of the North Hollywood Dump contamination contributed to the plausibility of the threat of contamination in Frayser, increasing the psychological distress in the community. Mass psychogenic hysteria has been found to occur more often in communities that are under physical or psychological stress and that media attention can contribute to the outbreak of psychogenic illness (Jones et al 2000).

The designation of this situation as mass hysteria also relates to the sociological concept of contested illness or contested causation. This is the idea that agencies and authorities with the social capital and political power to prevent and address contamination may have staked financial interest in ignoring or disproving illnesses caused by environmental exposure. Contested illness or causation occurs when the illness itself is not confirmed scientifically or accepted by the agencies or authorities as valid or when the environmental exposure causation of the illness is rejected (Shriver et al 2008). The types of agencies that may dispute environmental illness or causation include corporations, local or federal government agencies, and medical organizations. There are many examples of this happening in different populations, including Love Canal residents experiencing illnesses after the leak from the landfill, veterans experiencing Gulf War illnesses, and government workers exposed to radiation in the workplace. In cases where the illness is recognized, but the symptoms are medically unexplained or the causation is disputed, getting treatment can prove difficult (Engel et al 2002). This was the case in Frayser – residents had to mobilize themselves to bring in agencies to search for evidence of contamination. After experiencing medically unexplained symptoms, the assumed environmental cause of these symptoms was contested and disputed by governmental agencies. Rather than searching for the true cause, these agencies only searched for a lack of evidence of environmental contamination. The cause of the illness was not immediately obvious, so agencies searched for evidence that would allow them to escape culpability. The hysterical contagion model allowed this situation to disappear into Frayser history without action on the part of the EPA or the local Health Department.

### **Application to Environmental Justice**

There are different systems of inequality that made the situation in Frayser possible. The Frayser community was undergoing what Pastor et al. (2001) describe as ethnic churning. The area had already undergone a transition from a wealthy white neighborhood to a more racially diverse middle class neighborhood and was undergoing another transition from a racially diverse middle class neighborhood to a low income African American community. According to Pastor et al. (2001), this phenomenon increases the vulnerability of communities by weakening social capital and by increasing racial tensions. As the ethnic and racial composition of Frayser changed, the community became increasingly segregated. Residential segregation, as explained by Massey (2007), is one of the strongest factors in strengthening social stratification and inequality. Cole and Foster (2001) emphasized that “spatial segregation and isolation are key features of racial inequality in our society” (66). Residential segregation makes environmental inequality possible because different social groups are physically separate from each other. This enables groups with more social capital and political power to enjoy the benefits of an industrial society while isolating themselves from the risks and nuisances. Groups with less social capital and political power, on the other hand, experience the opposite effect; they experience the negative aspects without enjoying the benefits. When Frayser was a middle-class white neighborhood, they welcomed industrial activity, viewing the goods provided by industry (jobs) as outweighing the risks. As the risks of living in close proximity to industrial activity grew in public perception and public concern, whites fled the area leaving black residents to bear the burdens of industry. Frayser is now, like many places across America, a neighborhood where the once booming industry and white middle-class population left the area, leaving behind a low-income black population (Cole and Foster 2001:54).

Frayser is a community that experiences a multitude of stressors that are borne out of institutional racism. As previously mentioned, Frayser has one of the highest crime rates in Memphis, which in turn has one of the highest crime rates in the country (Community LIFT). Frayser also experiences high rates of poverty. In their data book on the Frayser community, Community LIFT notes:

According to the 2010 U.S. Census and American Community Survey Memphis is the poorest metropolitan area in the United States. Frayser is considered one of the most impoverished neighborhoods in the city. (22)

40% of the Frayser population lives below the poverty level. Frayser also experiences disadvantages when it comes to education. 26% of the population over 25 years of age do not have a high school diploma or equivalent. Many of the schools in Frayser have been designated as failing by the Tennessee Department of Education. Several schools in Frayser have thus been taken over by the Achievement School District, a division of the Tennessee Department of Education, to improve academic performance.

It is within this context of institutional racism that Frayser residents experienced the psychological stress of living near industrial activity and potentially experiencing chemical contamination and the associated health risks. Downey and Van Willigen (2005) found that “industrial activity is associated with perceptions of individual powerlessness and neighborhood disorder, leading to higher levels of psychological distress” (302-303). They also found that this effect of residential proximity to industrial activity is more potent for minorities and the poor than for white people and wealthy individuals (Downey and Van Willigen 2005). Not only are environmental stressors disproportionately located in minority and poor communities, but the psychological distress caused by living near those environmental stressors is stronger among

minority and poor individuals than among white and wealthier individuals. This may be because minority and poor individuals lack the social capital and political efficacy to effectively oppose the siting of such stressors in their neighborhoods, increasing their feelings of powerlessness, while whites and wealthier individuals do not experience this stress because they know that they have the tools to fight against such a stressor being located in their neighborhood. While no dump was ultimately found in Frayser, the psychological distress of living near industrial activity and the dread of environmental disaster was enough to cause hysterical contagion in the community and to have potentially negative mental health impacts on individual residents.

## Conclusion

The physical risks of being exposed to unsafe industrial hazards are extremely important. The physical wellbeing of individuals and communities should be the number one priority for government agencies and representatives. That being said, it should not need to simply be a goal for people's physical health to be protected by those who represent them, it should be a prerequisite. Having physically safe places to live, work, and play should be a standard according to the environmental justice movement. This is not the case for many communities across America, including the Frayser community, so the physical wellbeing of the population should be of the utmost importance, but the psychological wellbeing of that population should not be neglected.

Through my understanding of the situation in Frayser, I believe that environmental justice activism and legislation should focus not only on physical risks associated with environmental racism and proximity to industrial facilities, but also on the psychological risks. Frayser residents were perceived to be overreacting to something that ultimately was not there, but their mental health should be considered just as heavily as their physical health. The Frayser community experiences the many branches of institutional racism and the psychological impact of living with multiple stressors should be considered. Not only does this community live near industrial activity, the community also experiences widespread poverty, high rates of crime, and subpar education. It is within this context that the effect of living near industrial facilities must be understood. This connects to the environmental justice movement's more broad definition of environment; activists have come to acknowledge more branches of a community as aspects of the environment. Environmental justice includes issues such as air pollution and industrial siting, but it also includes issues such as transit justice and food deserts. These issues are a part of the

environment of the community and the environmental justice has evolved to include such aspects of the environment. All of these issues combine into larger social problems which cause physical problems along with psychological problems. The mental and emotional well-being of a community must be considered for future environmental justice action.

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