

Contamination and Redemption Sequences in Narratives of Environmental Suffering

By

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A Thesis Submitted to The Honors College

In Partial Fulfillment of the Bachelors degree

With Honors in

Psychology

THE UNIVERSITY OF ARIZONA

DECEMBER 2020

Approved by

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Abstract

Redemption and contamination sequences are narrative patterns that derive meaning from events. Environmental trauma narratives involving pollution exhibit such qualities in a literal and figurative sense. This study focuses on how and how often these types of sequences appear in accounts of environmental trauma from an expert group perspective and the perspective of community members who have experienced the pollution. For this study transcript data from the Environmental Protection Agency's Oral History Project were used. 18 transcripts were used consisting of nine from the expert group and nine from the community member group. Further research is needed to establish the relationship between identity and frequency of sequences in the rhetoric of each group.

Introduction

Contamination and redemption sequences in narrative psychology. In the subfield of narrative psychology, the life story model gives insight to a person's cognition and identity (McAdams, 2001). Narrative psychology is the study of how meaning is derived from stories which provides cognitive insight. It allows researchers to contextualize individual experiences of self-understanding and autobiographical memory through cultural and narrative contexts. Real world problems can be examined through the lens of a narrative. Two methodological approaches are typically used to code narratives, automated linguistic analysis and human coding (Weston, 2016). This study utilizes the latter.

One of the major categories employed by narrative psychologists is the distinction between contamination and redemption sequences (McAdams, 2001). In the simplest terms, redemption is when a situation or a person turns from bad to good. Contamination is the reciprocal. Redemption can be seen as a theme that repeats itself in cultural narratives. A renowned example of redemption comes from the life and death of Jesus Christ. In Christianity, Jesus is thought of as a pure entity without sin who gives his life in order to save mankind. Christians believe that people are born with an inherent impurity called the original sin due to the actions of Adam and Eve. In the book of Genesis, Adam and Eve are banned from the Garden of Eden after disobeying God and eating forbidden fruit off the tree of the knowledge of good and evil. This pivotal moment marks a contamination event in which they are removed from a pure environment and humanity then carries that sin trans-generationally. Later, the sins of mankind are then paid in full by the trials, torture and eventual death of Jesus.

Fairy tales also show how these sequences exist in narratives without being inherently tied to religion. Main characters in fairy tales often go through trials and suffer at the hands of villains, original circumstances or events, but an experience of contamination that is more uniquely characteristic of fairy tales is a curse. Characters in fairy tales often overcome their situations through a journey, the use of an item, or an arduous effort to overcome. Curses are often placed upon an innocent protagonist who then makes an effort to break the curse. It is important to look towards cultural narratives because the patterns allow for a more apparent view of general thought patterns (Franz, 1980). One could look to the narrative of one's own life and see patterns and themes as they would to either a fairy tale or their own religious doctrine.

Similarly to how widespread cultural stories show such sequences, real experiences can also show narrative sequences. This is especially apparent if there is a systematic way of recording such experiences, such as records and transcripts. Stories of figurative redemption and contamination relate heavily to the actual physical contamination of pollution. Actual accounts of widespread events can provide insight on the psychological effects of environmental trauma.

Contamination and redemption sequences in environmental suffering narratives. The importance of this study is to create a better understanding of how and if the themes of contamination and redemption are ingrained in the narratives of real firsthand experiences of cultural suffering, as experienced by those who have encountered a pollution event. Objective contamination, such as the actual act of improper chemical disposal, leaves little to no interpretation of the meaning of the sequence before, during, and after the event itself. The subjectivity and meaning assigned to patterns come from the figurative perspective of the sequences.

Sequences can be empirically observed in the transcripts of such firsthand narratives. The transcripts that were used for this project come from the oral history project via the Environmental Protection Agency (EPA; Superfund 25th Anniversary: Transcripts of Oral History Interviews, 2016). The transcripts are from interviews conducted by the EPA, in which those involved in the Superfund project over an extended period of time recollect their experiences.

The Superfund project was a widespread cleanup process initiated by the EPA. Under the CERCLA policy (comprehensive environmental response, compensation and liability act), more commonly known as Superfund, was a law passed in 1980 (Superfund, 2014). The purpose of this policy is to hold those responsible for illegal dumping financially accountable. Tax funding from petroleum and other chemical industries also finances the cleanups. Years after Superfund began, the EPA conducted a project where those who were involved professionally or through first hand experience with a superfund site were interviewed. The participants for this research project are the interviewees of the original Oral History Project initially conducted by the EPA. They are divided into two groups based on the dynamics of their involvement with the Superfund project. The expert group consists of EPA employees. The community group consists of activists, advocates and those who lived at or close to the site of pollution.

People use narratives to form meaning from their own experience on a personal level (McAdams, 2006). The purpose of examining the narratives is to see how the events impact one's outlook on their past experience depending on their group. A reason to examine the autobiographical information of those who encounter cultural trauma, such as environmental pollution, is to identify how social inequities manifest from environmental etiologies. This can

be done biologically due to the physical consequences of the pollution, socially by seeing how the roles affect the actual behavioral dynamics or the groups, or psychologically by seeing how the patterns abstract constructs appear. Through narratives, we are able to analyze the antecedents, the events themselves, and the consequences. In the narrative approach to the experience of contamination, the primary abstract constructs involved are contamination and redemption.

The purpose of comparing narratives from two distinct groups of people (experts and community members) is to expand perspectives to bridge gaps in realities. Looking at the commonalities and the logic behind the distinction will give the lay person who has no experience in the involvement of the Superfund a more objective view on the events. Listening to both perspectives through an equal paradigm allows for balance between cultural narrative styles. History typically favors narratives of those with power, in this case the expert group. It is important that the narratives of the disadvantaged groups are given equal weight.

There is dissonance between those of different political ideologies concerning the idea of redemption (Bazemore, 1998). In order to see if the background of community versus expert supports what has already been established, quantitative data is used to compare the ideologies of these particular groups. Those who have the power to make effective change could have a very different set of concerns from those who are actually experiencing the environmental trauma. This is especially concerning due to the fact that race is a strong predictor variable correlated to living in a toxic environment (Chavis, 1987).

People from different backgrounds have their own definitions of what is “clean,” “utopian” and “right” (Sullivan et al., 2020). When those in power are the ones who get to

consider what is and is not a sufficient clean up, it often leaves concerns from the people who live in the environment unmet. It is important to restore a sense of agency to those who have lost it by experiencing pollution and the shortcomings of what is in place to protect them from the pollution itself. This corrects the power imbalance, allows the experience of those actually facing environmental trauma to be considered and establishes a fair boundary that considers both the expertise of the expert group and the community members. Overall patterns and real problems should not be dismissed so easily by those who consider themselves to be objective.

The current research. The overarching goal of this research project is to examine how two distinct groups viewed similar events relating to the Superfund. Looking at the similarities and distinctions between these narratives gives us insight on how the proximity to the pollution and the social dynamics of how one operates in relation to it influences the event recall in terms of sequences. This is done by collecting frequency data of contamination and redemption sequences.

Looking for patterns and objectivity is another goal of this project alongside providing necessary context. Providing cultural context to the narratives themselves is also important because it allows the formation of distinct perspectives to become apparent. Looking for cognitive processes that have aided those in proximity to pollution can be used as an example to promote wellbeing. The same could be said for the avoidance of the cognitive processes displayed in the narratives that have not led to any productive recovery. It has been established that there is a correlation between redemption sequences and wellness (Bauer, 2018)

The goal of this content analysis is to quantify and better understand sequences in the set of transcript data. Commonalities and differences between the community members and expert

groups are the main focus of this project. Examples of the qualitative aspects that will be looked at are the biological consequences, social ramifications of exposure to toxicity, and the psychological framing of events. The initial predictions for this study are that there will be more contamination sequences in the community group, more redemptive sequences in the expert group, less sequences overall from experts.

Methods

Transcript data was used for this content analysis. The data originate from the EPA's oral history project. In this project, members of the communities who were affected directly by and were involved in community organization relating to the cleanup of pollution were interviewed. Experts involved with the cleanup process were also interviewed. These experts did not experience living in proximity to the cleanup sites under the superfund, but were involved in some way with the logistics of the cleanup. These experts had many roles consisting of EPA employees, government officials, and lawyers. These interviews were selected for the following reasons: to have an equal quantity of representation between the two groups, and so that the average word count per interview would be similar.

Previous research on the subject used a quantitative approach to measure frequencies of terms relating to cognitive distortions (Sullivan et al, 2020). This analysis takes a qualitative perspective by using human coding to find either contamination or redemption sequences in the narratives of the people who were involved with superfund or the sites of pollution. The frequencies of these sequences are then compared quantitatively to see how experiencing

pollution firsthand or by the proxy of the superfund project influences perspective in the narratives.

The introduction to the coding process was done through meetings with the principal investigator, Dr. Daniel Sullivan, and myself. Over a period of a few months, weekly meetings took place where the coders would practice finding sequences in the interview transcripts. A third coder was originally involved but was unable to continue. Final codes are based off of the analysis of myself.

The criteria for a contamination sequence is that there must be a noted shift described by the narrator of a situation, object or dynamic turning from good to bad in terms of quality (McAdams, 2016). A more ideal situation has been transformed by either literal pollution or the perception of pollution or ever-present threat. Social threats and contamination of a situation may also occur, such as losing one's home and community after being relocated away from cleanup sites. Reciprocally, the criteria for a redemption sequence is that there must be a noted shift described by the narrator of a situation, object or dynamic turning from bad to good in terms of quality.

Personal or community redemptions can occur, such as if a person or company were to “redeem” themselves by paying for a cleanup after admitting liability. Redemptions can also mark a return to what a situation was like before a contamination event occurred. Another quality of a contamination sequence includes but is not limited to a new presence of a prolonged and ever present threat. A redemption sequence can involve the conquering of the ever present threat through outside influence, perseverance or power (Sullivan et al., 2020).

A sequence must be complete temporarily, meaning that it must have a beginning and an end. A redemption sequence must have a starting before time as well as a notable point that shifted the perspective from bad to good. The reciprocal is true for a contamination sequence where there must be a shift from good to bad qualitatively. Counterfactuals were excluded from the criteria as they do not represent what is real to the interviewer, therefore it is irrelevant to how they perceive their situation in their actual narrative.

For this same reason, if statements and hypotheticals were also excluded. Only actual events that are recalled by the interviewee were counted as a sequence. Whether or not these events actually occurred in the exact sense or quality or not is both impossible to verify as well as irrelevant, as the subjective experience is what is being measured. The coder ignored events that improved or worsened in quality unless they were attributed as worse or improved by the interviewee. The objective flow of events that can be noted by the reader of what is and is not a shift in quality was ignored unless it was qualified by the narrator.

Results

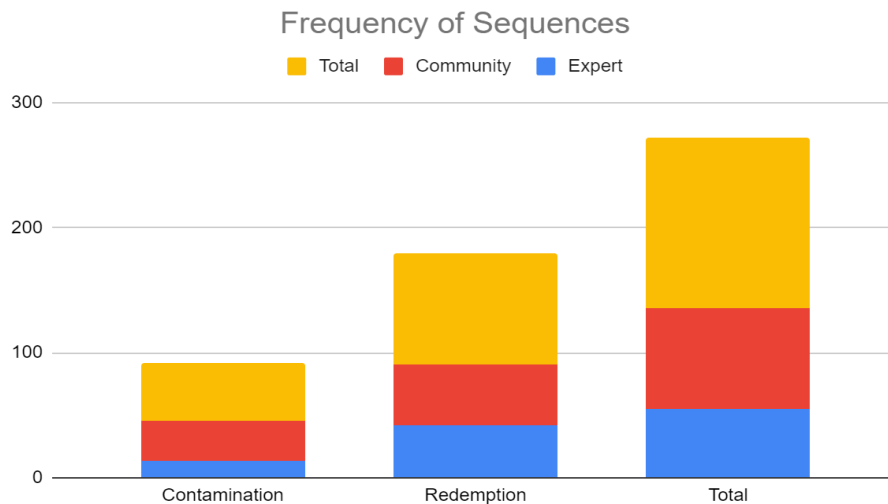
Quantitative analysis of redemption and contamination sequences. A weak ($r=0.4759$) but significant positive correlation was found between one's group and the frequencies of contamination sequences. The average amount of contamination sequences per transcript is for experts 1.4, 3.7 for community members, and 2.5 overall. As for redemption, an even weaker positive correlation was found ($r=0.0275$). The average amount of redemption sequences per transcript is for experts 4.7, 5.3 for community members, and 5 overall. Figure 1 illustrates a breakdown of how many of each type of sequence were found in the transcripts by groups. Figure 2 is a bar graph of the frequencies of the overall sequences grouped by type and total.

Chi-square test was conducted and the result was 4.2815. The p-value for this analysis was .038528 meaning that the results were significant at $p < .05$. Overall there were 136 total sequences in all of the transcripts. These were comprised of 90 redemption sequences and 46 contamination sequences. The expert group had 55 total sequences, 13 of which were contamination and 42 were redemption. The community group had 81 total sequences, 33 of which were contamination and 48 were redemption.

Figure 1. *Distribution table of sequences*

	Expert	Community	Total
Contamination	13	33	46
Redemption	42	48	90
Total	55	81	136

Figure 2. *Bar graph of distribution by sequence type*



The highest amount of contamination sequences was found in the community group with a total of seven sequences in a single transcript. The highest amount of redemption sequences was found in the expert group with a total of nine sequences in a single transcript. The lowest number of contamination sequences found in a single transcript was zero from the expert group and the lowest number of redemption sequences was 2, which appeared in both groups.

The largest percentage of narrative sequences were from the community experts. This supports the initial hypothesis that community members would have more sequences compared to the experts. Compared to the breakdown of sequence type this is more substantial to how narrative styles distinguish themselves between these two groups, according to this data set. The original set of transcripts had more expert interviews. An even amount of expert and community interviews were coded (nine per group).

The contamination sequences from nine expert transcripts represent only about 9% of the total amount of narrative sequences, but the contamination sequences from the community transcripts represent about 24% of the narrative sequences as a whole. This means that community members spent much more of their time describing contamination sequences in their interviews compared to the experts. A notable similarity between the number of redemption sequences is present with about 30% of the total sequences from the expert group and 35% for community.

Qualitative analysis of themes in the narratives. Rhetorical patterns were also present and distinct amongst both groups. Both groups fixated flaws of the system in which they function. For the community members, they emphasized the shortcoming of a system that was supposed to prevent and take accountability for such pollution. Following the perceived lack of

accountability and action, the community members expressed either hopelessness or the efforts to resolve the problems they encountered amongst themselves. They were not without barriers however, as organization was difficult without proper resources. Many of their efforts failed due to lack of expertise, finances and the unity of the community. Though their successes are not to be glossed over, the community efforts were often slow and ineffective. Unity and determination seemed to be a commonality of their successes. However, they would have succeeded more so if the system of liability would have been provided the resources necessary to maintain the health of the community in the first place.

Fragmentation of events was more present in the community group. This is consistent with previous research (Benish-Weisman, 2009) which showed that hardships relate to both fragmentation and coherence. Expert groups relied heavily on a chronological structure. This structure usually involved the beginning of their employment which marked the starting point of their narratives and the end of their career marking the end. Similar studies that pull data from the same set of interviews found that experts scored higher in “analytic” language, meaning more abstract, formal, categorical, and complex language (Sullivan et al., 2020, pp. 287-288).

Both of these groups had non-self referential elements in their narratives. They mentioned others who were either in the same field who were also somehow involved in the project. This includes their past coworkers or for the community, other stories of people affected by the pollution. Both groups mention outside entities that are responsible for the act of environmental pollution themselves. The topic of accountability was present as well. For the community group it was more about how the pollution will be cleaned and the expedition. For the experts, there was more of a systemized method of holding the responsible parties

accountable. There are policies in place to outline who is responsible and to what degree an entity can be held responsible.

Since the perspectives of the experts appear to be very systemized, it can be assumed that after a while one would stop considering anything outside of the system to be valid. This can include the firsthand experience of the communities. This can create a lack of empathy from perspectives that do not conform to practices of the experts. Trust from the community towards a higher entity is thereby broken. Experts tend to assume that the emotional community members are illogical and hurt their efforts to come up with a solution. There is a lack of empathy and consideration from this perspective that assumes that the systemized approach from the EPA considers all variables and is the sole solution to the problem of the pollution.

There is an apparent discrepancy on what is considered to be clean or a job well done. For the experts, there are clearly outlined standards which must be adhered to for a site to be considered completely clean. Who is really receiving the benefit of the research or the cleanup if the concerns of the people who actually live in the environment are not met or only partially met? Why is there a divide between these groups if their goals are supposedly the same?

The concept of fairness is dictated by those in positions of power and not by those in the polluted environment. It is understandable why the needs of the community members are unable to always be met by governance, however those who are most affected seem to have their input overlooked the most in favor of those paying for the cleanup. Experts often express how community members were difficult to work with or a surrounding perception of the community members where those who were officials thought of them as a burden. When an apparent threat is present where one has little understanding of how and why it is occurring, paired with the lack

of ability to change the situation, it is understandable as to why the community members would be vocal about their concerns in an upfront manner.

The divide between life and occupation is apparent more so in the expert group. The experts usually state their role and qualifications involving the superfund but that has little to do with their home and personal life. For the community members there is little separation unless one takes an active position in an environmental justice. One explanation for this is that the pollution is not present in the homelife of those who are experts. For the community members their involvement with the Superfund and the pollution they experience leaves little room for separation and the boundaries of their roles can become blurred.

Certain phrases often appear in the expert transcripts. The phrase “there was a time when” usually applies to a change in dynamics among their working environments such as an updated policy or a takeover of a cleanup site. Experts often expressed that they and their organizations did the best with what they could with what they were provided. This was not as apparent for the community group. Experts also had a very matter-of-fact way of speaking. This pattern was apparent when they spoke of similar topics that the community members did. Topics that overlapped the most between the two groups were the maintenance of a standardized approach, expressing their difficulties in communication with the communities, budgeting of funding, and holding those liable responsible.

Below are two examples of redemption that are representational of a typical sequence. The first is from a community member and the latter is from an expert.

My understanding is that Viacom put about \$1.5 million of its own money in—this was prior to any of the recent history that you and I have talked about—to

[investigate and research] the site. My personal belief is that their primary motivation to do that was to protect themselves from CERCLA liability. But the bottom line is when Ralph came in and when EPA started going through their entire research process to decide what their removal and remediation action plan was going to be, they used a lot of the Viacom research and data as a baseline. So in that respect, Viacom inadvertently made a contribution. (Knapp, 2005)

The interviewee mentions how a company like Viacom redeemed themselves by making a contribution possibly to avoid liability.

They declined to take responsibility for the site, but we were able, through good analysis, to link some of the chemicals we found there to some of the production chemicals from some of those firms. Through historical aerial photographs, we were able to learn how, over time, the site had become a disposal site, how the ground had become scarred, and records of construction at the site where the earth caught fire when they were moving some of the dirt because of reactive phosphorous—red phosphorus had been disposed of there as well as some other organic chemicals. So there was another relocation of a number of people. In fact, one family who was relocated from there had already been relocated from Love Canal, so they probably hold the record, I guess, of a double Superfund relocation. And that site, too, has now been cleaned up and is being reused, I believe, for commercial purposes, and I believe, it, too, has been taken off the NPL. So another cleanup success, but it took a lot of time. It was very controversial, and any time you have to relocate people and get involved in their housing needs on an interim basis, the cost of their land, negotiating with them for sale of their property... (Luftig, 2005).

Once again, the act of taking responsibility and being held liable is apparent in a redemption sequence.

These next quotes are two examples of contamination that are typical of a sequence. The first is from a community member and the latter is from an expert.

We didn't feel particularly threatened by that. Shortly after we moved into our home, we started experiencing chemical smells in the air permeating our home. We had seen trucks going out and dumping chemicals, and so we started calling the health department. We were told that it was just a trash dump and there was nothing serious there to harm us, and that it was just a sweet musky smell, that it was our imagination. Being a naïve citizen, I didn't think the government wouldn't tell me the truth, and so I believed them. As time went on, by 1978 we were developing health symptoms. My youngest son developed asthma. We noticed it happened when the chemicals were in the air the heaviest. Some of my neighbors also felt there was something wrong there. (Rader, 2005)

Health concerns seem to be the overarching concern where a notable shift in health is stated alongside the continuous threat.

So in 1981, I left the research institute and opened my own company to provide technical assistance to the community groups, and I also provided technical assistance to small businesses in the area who were also looking for assistance but didn't have it readily available. Frequently, when we'd go into these communities, we'd sample these people and their surroundings and they were a code number, but they never knew their code number. When the data came back, we submitted it to the Agency and then the Agency

would do a summary report and send the message to that community, “Nothing exceeds criteria,” or, “There are no excessive health impacts,” and when you looked at the data, you knew that there were people that were excessively being impacted, and in a lot of cases the people that were selected to be controls turned out to be heavily contaminated. But we couldn’t go back, because we were under contract. We couldn’t go back and say, you know, “These people have really high levels. We really need to figure out where they’re getting it from.” But we weren’t allowed to do that. There wasn’t anybody that they could turn to, because they didn’t know what their code number was (Subra, 2005).

The expert illustrates the continuous by stating how the pollution remained alongside the negative health impacts thanks to the inaction of those who were responsible for addressing it.

Discussion

Although this study did not find a strong relationship between the identity of the interviewee and the frequency of sequence type, it is important to consider the overall frequencies between these groups. The reason being is that both of these groups had higher redemptive sequences contrary initially predicted where only the expert group was assumed to have a higher amount of redemptive sequences. This is important because it shows despite one's background and involvement in the event, both groups have a similar chance of perceiving negative experiences positively after a transformative event. This provides us an optimistic outlook on social equality. It implies somewhat that people are equally capable of mentally overcoming and recovering through a redemptive perspective.

It is important to note that expert groups had a notably lower amount of contamination sequences compared to the other frequencies. The expert group had the least amount of negative

outcomes from their transcripts. One possible explanation for this is that there is a separation from the event and their role as an expert where they do not experience the permanence of the consequences of the pollution. Their belief that their experiences were more redemptive might be explained by a desire to showcase their triumphs in their occupations as opposed to their shortcomings in their efforts.

Role fulfilment is an apparent theme that seems to relate to contamination and redemption sequence in this context. When roles are not met more sequences of contamination seem to appear. A possible explanation for this is that not living up to a role spoils the perception of an ideal situation and limits the perception of one's capabilities to better the situation. When the work of the role is not done the problem still remains.

Disadvantaged people are more likely to live on or near a contaminated site (Bullard, 2008). Exposure to pollution has negative consequences to one's health (Pejanovic, 2015). One can assume based on this that there will be more severe and chronic effects over prolonged exposure. In addition to the physical effects, the perception of self in relation to their environment can be affected. If one is negatively impacted physically by an all surrounding and invisible entity like pollution, it can be ever present psychologically as well. Self-redemption is also linked to health behaviors such as alcohol consumption where people who are more redemptive are more likely to maintain sobriety and show improvements to overall health (Dunlop, 2013).

On a broader social level, the perception of justice can be affected if the responsible party is not held responsible. If one does not receive justice, then one could assume that they are not worthy of it. If one is failed by a system in place that they once had faith in one is likely to lose

that faith in it. This is a characteristic of contamination. If a system is in place where pollution is supposed to be addressed, the shortcoming of the systems are even more apparent as opposed to if the system was not there in the first place.

This is not only true for an individual, but also for businesses like banks. One interviewee recalled that banks refused to lend for development on contaminated land before people choose to stop developing on contaminated land. It shows a distinction between the practices of banks, who have experienced the financial consequences of being held responsible for pollution as opposed to other businesses who have yet to be held responsible for developing on contaminated land.

As I understand the history, Hooker clearly warned them it's a chemical landfill, but it was taken under the threat of condemnation. And then the school was built there, and then a subdivision was put there. I'm pretty sure that's the history. The chances anymore of a school or residential being built on a landfill are very remote. The banks, for instance, are paranoiac about contaminated land, and almost no transactions go through without a bank lending the money. For a while in the late 1980s, early 1990s, banks wouldn't even lend on contaminated land. Recall Fleet Factors: A couple banks got tagged for cleanup costs based on loans. They became once-burnt, twice-shy. So the banks are kind of a check on historic contamination (Reilly, 2005).

The topic of liability also appears when the topic of funding the cleanup of the site is brought up in the interviews themselves. Retroactive liability is applicable when entities are deemed responsible even after time has passed and an ineffective cleanup effort was made. The concept of "the polluter pays" is when the PRP (potentially responsible party) pays wholly or

partially for the cleanup upon being named legally responsible. However the contaminated communities also pay a steep price. There is an extreme loss of agency. They lose agency upon being displaced from their environment. They lose agency of their bodies when chemicals are influencing their health unknowingly and without their consent. Community members emphasized how there are devastating consequences for when the responsible is not held accountable.

That, you know, as my mom had always told me when I was younger, “You make the mess, you clean it up.” Well, that applies to these guys, too. When you bring in millions of gallons of toxic wastes and dump it in a community, you have a responsibility to step forward and address that, and clean it up. I think that’s a pretty common sense, fair way of doing things, and I think the American people expect that. It’s too bad that our elected officials don’t make them do it, and don’t really push the polluter pays aspect of it. The fee that was established would have generated the funds for the cleanup, for addressing these sites, and for funding the program so that it really can clean up these sites that are really posing a problem for communities. This isn’t a minor problem; it’s not an eyesore. These really pose a health risk to communities. It destabilizes the community’s economic base. It really has a devastating effect on it, and I think if we make those who created the problem clean it up, then we would have a rejuvenation of some communities that are hard hit and really need that economic boost. (Newman, 2005)

For these community members it was more about how an outside entity has left behind something harmful rather than needs to be removed, rather than holding the businesses accountable in order to move forward with funding. Once again, it is apparent from this quote

that the concerns of the community were often invalidated in order for the responsible party to avoid accountability. Community often members expressed the severity of the health effects of the pollution, and that even after the consequences are no longer dismissed, officials still do not hold the responsible party financially accountable to the affected communities.

Limitations

There is a small pool of transcript data from the EPA consisting of only 39 transcripts. A larger proportion of those transcripts are from expert interviewees. In order to have greater statistical power, this analysis would benefit from a larger sample of transcripts with an even amount of community members and experts. This also highlights an inherent bias in the data itself. The data originates from the EPA's oral history project. Since it is presented, edited, and compiled one cannot say for sure that it is without bias. The curation of who was chosen to be interviewed is an important thing to consider when looking at the variance between experts and community members. It can be assumed that if one were to interview a mother whose child's health was severely impacted by the effects of pollution, that she would have a very different account of a pollution event than one who was leading community involvement.

There was only one coder for this project which creates an issue of inter-rater reliability. The interviewees were only interviewed once. Having data from two or more points in time for a longitudinal study would set temporal precedence to determine the exact influence that one's group has on a narrative approach and perspective. Since the idea of contamination has not been as thoroughly researched compared to the concept of redemption, there are fewer comparable narratives for contamination.

The study also lacks comparable data from other narrative projects on the same type of subject matter conducted by different interviewers on other populations. Having such comparable data would strengthen the generalizability of the study and further the understanding of how the identity of the participants relate to the narrative styles, without the third variable problem of a singular event background. Further studies would resolve these issues by pulling from a greater amount and variety of narratives relating and not relating to pollution and the superfund. Interviews would have to be collected from various points in future studies to mark the changes in perspectives caused by the physical and temporal distancing of the events themselves preceding when the pollution is addressed.

Conclusion

This study provided no strong support for the relationship between how one was involved with the event of pollution and the frequency of contamination and redemption sequences in the narratives where the event is recalled. However, it shows that contamination sequences can be outweighed by redemption sequences even in some of the worst circumstances. One's proximity to the event in terms of their role was not as influential as originally predicted. A possible explanation for this is that the combined factors such as physical impacts such as health problems caused by pollution, social ramifications such as from one's environment displacement, and the fulfilment of one's role without any impediments. Another explanation is the possible distance to the pollution itself, physically based on exposure and temporally based on the passing of time.

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