Frontispiece

"There's no comprehending

Just how close to the bone and the skin and the eyes

And the lips you can get

And still feel so alone

And still feel related

Like stations in some relay" (Mitchel, 1976)

"We may choose measures that appear to make us 'apart from the universe,'

which brings the temptation of imposing our will upon it. Or, we may choose measures

that acknowledge we are 'a part of the universe' and admit, when we change ourselves,

we change the universe as well" (von Foerster, 1990)

"The nervous system organizes the world to compute a stable state. The

organism needs stability to function, to maintain its viability, to survive. If the world is

not predictable, survival is more difficult—if not impossible. And that stability can be

reflected in terms of 'object constancy', as with Piaget, or the concept of 'concepts" as

carefully defined by Pask" (Pangaro, 2003)

"'Evil' is that which limits the right of actors to interact" (Pask, 1991)

"There is nothing more practical than a good theory" (Lewin, 1952)

"'Paul, as a cybernetician, you stand on the Shoulders of Giants!' Bathed in the

torches of his eyes, overwhelmed by his attention, how could I possibly respond? But

there was no need, for he wasn't finished. Holding my gaze in his, he continued: 'Tell

us....what...you...see!" (Pangaro, 2003)

ATHABASCA UNIVERSITY

THE CONTRIBUTION OF PATHOLOGIES OF CONVERSATION

TOWARD THE MANIFESTATION OF OPPOSITION TO LANDFILL

SITING

BY

PHILIP JOHN COOK

A THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES IN

PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF DOCTOR OF BUSINESS ADMINISTRATION

FACULTY OF BUSINESS GRADUATE PROGRAMS

ATHABASCA, ALBERTA

DECEMBER 2017

Approval of Thesis

The undersigned certify that they have read the dissertation entitled

THE CONTRIBUTION OF PATHOLOGIES OF CONVERSATION TOWARD THE MANIFESTATION OF OPPOSITION TO LANDFILL SITING

Submitted by

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In partial fulfillment of the requirements for the degree of

Doctor of Business Administration

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January 2, 2018

Dedication

This paper is dedicated to the late Dr. Andrew Gordon Speedie Pask whose intellectual accomplishments have most certainly provided a pathway to the understanding of understanding and thus to the ethical advancement of the species.

Thank you for sharing your repertoire with us.

Acknowledgements

The effort and kindness of several individuals should be acknowledged, as the completion of this paper was contingent on so many of them.

First I wish to thank my supervisor Anshuman Khare, who inspired me to continue on this journey after the completion of my master's degree. Thanks to my supervisory committee members, Dr. Helen Lam and Dr. Terry Beckman whose guidance made this work better and my repertoire stronger.

To Dr. Paul Pangaro who has the unearthly ability to produce pragmatic explanations of Dr. Pask's work and who was gracious enough to sit as an external examiner for the research proposal that eventually manifested in this thesis.

To Dr. Bernard Scott whose knowledge and continued academic activity within the domain of conversation theory provided invaluable insight into the production of this research.

To my colleagues at Athabasca University who shared this journey together with me and especially to Dr. Kara Mitchelmore whose perseverance and unique perspective was and is pillar-like support and encouragement for me. Thank you.

Finally, a special thanks to my wife Helen who endured seven years of managing more than her fair share of the home duties, editing papers, weeks alone while I travelled, helping care for my demented mother and all the intellectual blood sweat and tears that seemed to plague this journey. Thank you.

Abstract

Purpose

This research has been carried out in an effort to answer the question **"why do community opposition groups form?"** It is posited that the identification of the mechanisms that promote the formation of community opposition groups might provide insight into the future design of collaborative platforms that might be more equitable, ethical and have a higher probability of success.

Design / Methodology / Approach

The research begins with a review of current literature concerning community engagement and flows through to a review of contemporary literature related to the explanation of opposition groups. The theories of NIMBY, NIABY and pathologies of conversation are explored and reviewed. Three case studies follow, all of which are presented following the "pattern matching" methodology, and are based on the collection of primary and secondary data used for triangulation in the case analysis. A cross case analysis is then presented and conclusions, implications and future research are explored.

Findings

The researcher arrives at substantial support for the theory of pathology of conversation as the impetus for opposition group formation. The NIMBY and NIABY theories when matched for "fit" with the data are insufficient in their explanation for the formation of opposition groups in all of the three cases. Emergent from the data are themes of threat to normalcy, moral hazard and an important temporal aspect regarding the formation of the community opposition groups. It is also concluded that the geographic proximity variable is essential to the formation of the groups and that the best explanation of the phenomenon lies in the combination of different aspects of the explanations.

Value

A model of opposition group formation based on pathologies of conversation is presented for use in engagement strategies for business, government and community. The identification of the mechanisms of opposition group manifestation namely pathology of conversation allows for a clear path to avoidance of these mechanisms in the designing of collaborative platforms.

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1   Introduction

1.1.1   Background

Contemporary society is faced with issues of deepening complexity. Often societies are faced with situations of coexistence that a singular perspective cannot adequately solve without the creation of unintended consequences such as marginalization or the unfair treatment of one group in favour of another. The complexity of situations can be identified through the observation of the situation itself. At the heart of the analysis are the number of variables that exist and whether they are linear or nonlinear in their relationship to each other. Linear relationships when graphed form a straight line. Nonlinear relationships are curvy lines when graphed. Nonlinearity was at the heart of Prigogine's work concerned with self-organizing Systems (Waldrop, 1992). Complexity is marked by two key ingredients: irreversibility and unpredictability (stochasticity) (Prigogine, 1987). Obviously, the depth of complexity increases as one identifies more and more nonlinear variables that form the model.

Traditional modeling of complex social systems, for example, has involved the linearization of variables to produce an elegant and precise model. However, the decision to avoid the use of nonlinear variables has led to a limited predictive ability and variance rendering the models somewhat irrelevant. Modeling complex social systems

including nonlinearities, while less precise and with less opportunity for them to become generalized models, leads to a more useful representation of the "real world." This Systems view of modeling suggests a group of heuristics for use by the practitioner similar to those used in engineering or medicine as opposed to those that might be used in physics or mathematics (Forrester, 1987). Daily examples of complex systems can be witnessed through observation of weather patterns, global financial markets, and social organizations such as businesses or nations. Complex systems then, deliver a need for innovative or novel means through which to understand them. As was stated by the Emergency Committee of Atomic Scientists over seventy years ago ("Atomic Education Urged by Einstein," 1946) "a new type of thinking is essential if mankind is to survive and move toward higher levels" (p. 13). The central focus of this research was the employment of one such novel type of thinking namely that of the theory of conversations (Pask, 1976).

This research purports to demonstrate a new type of thinking or at very least the application of an extant type of thinking to a domain that has not previously been subject to this type of perspective. This research adopts a second order cybernetic perspective and contrasts it with more traditional perspectives within the domain of landfill siting.

1.1.2 Context

While this research does not lay claim to providing a solution to the problems of human organization, it does intend to provide insight into areas to date unexplored within the domain of complex situations. Specifically, this research delves into the siting

of Locally Unwanted Land Uses (LULUs). Examples of such land uses are defined as landfill sites, highways, prisons, toxic waste dumps, nuclear facilities, airports, low-income housing, strip mines, etc., and while some perspectives view them as necessary, there is often much individual and community opposition to them (Popper, 1985; Schively, 2007). The context of siting such facilities in communities is one of great complexity. The very act of siting LULUs produces many questions, the most obvious of which is where we place these facilities. The questions, however, do not stop there. In the case of LULUs, there is quite often a risk or perceived risk associated with them and therefore who should shoulder this risk and why? What mitigating or equalizing measures should be taken? The questions range to whether the siting needs take place at all, or whether there can be measures taken to deal with the situation at the source rather than at its end; for example, energy conservation, waste recycling, and elimination of toxic waste production.

Eventually, based on an industry or government perspective of need, in the case of all siting situations, there must be an engagement with the community. Engagement in this sense within the literature can be typified in three ways: transactional, transitional, and transformational (Bowen, Newenham-Kahindi, & Herremans, 2008, 2010; Kolk & Lenfant, 2012; Newenham-Kahindi, 2010; Payne & Calton, 2004; Walton & Rivers, 2011). Each of these types of engagement has within its constitution several typical aspects not the least of which is the quality of communication that occurs between the siting agency, industry, and the community. Briefly, the three previously mentioned types of engagement vary in terms of communication form: one-way,

through two-way to a dialogue, respectively. The underlying assumption preceding the engagement is, generally, that the LULU is necessary and that it will be constructed in one community or another. The sustainable development of the human species will require industry, government, and community to work in a manner that orchestrates the safe, fair, and mutually beneficial management of those aspects of our society that produce a need for LULUs and their siting. The underlying implication is the somewhat difficult setting of collaborative agreement – negotiating a consensus on how we all wish to live.

1.1.3   Aim

As has been alluded to previously, a new type of perspective or thinking may be required to improve upon or enhance the process of human collaboration. The aim of this research is to test for the application of a type of thinking within the domain of collaboration.

Collaboration of sorts, however, seems to be ubiquitous; in fact, it is likely a key to the longevity of the human species. Cooperation and collaboration have delivered us safely to this point, even though we are not the strongest, fastest or most efficient creature. The human propensity for this type of social organization is not, however, the only force available in the domain of human interaction. One need not spend a great time intellectualizing the fierce intra-competitive nature of the human species to see that social collaboration is quite often superseded by outright violence. Opposition to one another's actions and behaviours is quite often the norm and is something indicative of the absence of collaboration and cooperation. These dichotomies appear to

be part of what is the contemporary nature of the human species. One can easily note collaboration and conflict, freedom and tyranny, trust and fear, preservation and destruction as dichotomous influences within the domain of that which is naturally human.

The more negative aspects of "human nature" are not likely to be desirable, yet are seen as rational behaviours by those who engage in them. While not predictable, humans generally act and transact in ways that are rational - from their perspectives. The conflict that occurs is usually a derivative of ethical consequentialist pathology - unintended consequences arising from lack of choice in situations and actions (Von Foerster, 1991). Pangaro (2011b) sums up the sentiment precisely in restating von Foerster's ethical imperative: Act always so as to increase the number of choices. In addition to the ethical argument, given the seemingly negative aspects of "human nature" from a strict business perspective, conflict must surely be expensive. Conflict at its essence is the impediment of otherwise unimpeded transactions. Unimpeded transaction must surely be the key to any successful business - the purely theoretical model. This is not to suggest that all conflict is negative; to the contrary, many see conflict as a healthy product of democracy. The researcher will expand upon this perspective later in the research. However, in the case of siting, community opposition is predictably something that industry and government especially would like to avoid for obvious reasons.

Conflict for example is neither the root responsibility nor mandate of the democratic government. Democracy is designed to be representative of the constituent

voters or citizens. While conflict is likely inevitable and most democracies are designed with mechanisms of conflict resolution in place it would seem obvious that procedures for citing LULU's (among other procedures) would have at their essence an equitable and ethical structure. Collaborative solutions to all procedures established are an obvious pursuit for government in an attempt to fulfill their mandate of servitude.

Profit fetish aside, industry and socially responsible industry can benefit greatly from unimpeded establishment of LULU's including alternative source based solutions to these controversial societal situations. LULU's provide industry with great opportunity. However, as an integral part of society, it is probable that contemporary industry has a responsibility to behave in a socially responsible manner. Therefore, an ethical and equitable means to establish a collaborative end to siting LULU's is beneficial.

As for the underlying reasoning of whether it is justified, there is little doubt that - in the siting situations of LULUs - the cost of community opposition or conflict is and will continue to be very high. Community engagement strategy is a growing area in the domain of sustainable business (Bowen et al., 2008). Both practice and academia have recognized the value of community engagement strategy in risk mitigation, sustainability, philanthropic, and cost-benefit aspects for the corporation (Davis & Franks, 2011; Graetz & Franks, 2013; Herz, Vina, & Sohn, 2007; Kemp & Owen, 2013; Kemp, Owen, Gotzmann, & Bond, 2011; Stevens, Kooroshy, Lahn, & Lee, 2013). As global demand increases for raw materials, energy, prisons, waste disposal sites, chemical plants, etc. community opposition and its related costs will only increase as well. For example, in the oil extraction sector, disputes that ended in arbitration

increased more than tenfold between 2001 and 2010 in comparison with the previous decade (Stevens et al., 2013). Relatively high demand for LULUs sustains high upward pressure on the establishment of such developments and yet at the same time increases the leverage that seemingly powerless community efforts have (Stevens et al., 2013). Regardless of the term or the manner in which one coins this phenomenon - community conflict, community opposition or for the researcher's purposes community engagement - the issue is one that is most certainly a multi-billion dollar issue that must be paid attention to by businesses and governments alike. In terms of extraction alone, the 2012 estimate of global capital investment for development was $88 billion dollars (Stevens et al., 2013).

Industry and government are faced with a domain of "human nature" or at least human history (Von Foerster, 1991). For if "human nature" cannot exist as a stable entity then it must exist as a process of human history which is unfolding as a record of where we have been but with the opportunity to change where we are going. One arrives at this condition responsible for choices between different aspects of situations in which a duality of truth exists. This undecidable condition leaves the observer with a dichotomy in which either responsibility must be accepted for a decision or deference of the responsibility is exercised – "I could not do anything other than X because someone else has set me to this task". If deference is avoided and the freedom of choice is accepted then Von Foerster (1991) suggests the most ethical behaviour in these undecidable situations is to "act so as to increase the number of choices" (p. 6). Hopefully, we are going toward a much more ethical and choice laden resolution. How

then can one avoid the impediments of conflict and opposition in favour of collaboration and cooperation? It would not be uncommon to consider the answer to this question a simple matter of control. However, a system that controls, for example, an industry or a government must be constructed in such a manner so as to have a control mechanism as changeable as each potential action of the system to be controlled - for example, a community. The principle implied by this concept is the Law of Requisite Variety and will be explored at length further later in this paper (Ashby, 1958). A control mechanism of this type is highly unlikely without the limitation of choice - in extreme situations the tight limitations of dictatorships or military rule. These types of systems of control are such that they impede the freedom of the members of the organizations and are historically unsustainable or at the least undesirable. The solution perhaps lies in the creation or discovery of a control system that automatically balances the control between the controlled and the controller. The system must be derived with a deep understanding of the human history surrounding such interactions and transactions, the context of the interaction and the myriad aspects of the domain in which the transaction is to take place.

The aim of the research is to answer the question why do community opposition groups (COG) manifest and to identify and describe a non-traditional means of thinking and organizing that balances control and provides an ethical arrival at agreement regarding LULU siting. In so doing it was a goal to provide insight and perhaps alternatives to the current perspective on these potentially collaborative undertakings.

1.1.4 Research Question

The primary research question then was: why do community opposition groups (COG) manifest? The logical extension of the provision of insight into this area is of benefit to those on all sides of these types of interactions: businesses, communities, and governments. It was posited that if the researcher could illustrate what is contributory to the formation of opposition groups, then it will be a step toward not promoting the formation of such groups - i.e. this is a research of what not to do if one is to attempt to avoid opposition.

1.1.5 Objectives

The researcher proposed that insight be sought regarding such impediments to transactions by means of this research. The method used was to trap a contemporary view of community opposition, compile patterns from the data, and test them for "fit" with the extant patterns in the literature - pattern matching (Baxter & Eyles, 1997; Dubé & Paré, 2003; Gilbert, Ruigrok, & Wicki, 2008). In so doing, it was the intent of the researcher to provide insight into the mechanisms of engagement that are contributory to the formation of community opposition groups. The value of this research lies primarily in the identification of these mechanisms and then devising ways of avoiding the production of them thus providing useful tools for business, government, and community strategists planning on entering into successful collaborative or engagement transactions.

What was undertaken was the search through human history of these situations by means of a review of extant research literature. The literature review that follows

reveals that there are - as with many domains - several theories and patterns that have been established and applied.

Once established these patterns would be used to test the data derived from three cases studies undertaken. The aim and objective of the research was to provide a new way of thinking about human interaction and collaboration through the observation of three similar situations where this had not been accomplished.   What follows is a detailed description of this process in an effort to satisfy these objectives.

1.1.6   Scope of Work

Initially it was important to define or attempt to define the situation that one was observing, to create a common language that was referred to throughout the inquiry. To manage this, the literature review explored the terms "community" and "engagement" first. This exploration touches on several more prominent implied concepts of community and engagement and their consequent strengths and weaknesses as revealed through empirical and theoretical inquiry. Within the literature, concepts of community abound. These include but should not be limited to community as geographic designation, community as a stakeholder, community as a group, and communities of interest (Adamson, 2010; Anguelovski, 2011; Brammer & Millington, 2005; Cavatassi & Atkinson, 2003; Dunham, Freeman, & Liedtka, 2006; Fassin, 2011; Newenham-Kahindi, 2010; Wenger, 2000, 2011; Wenger & Snyder, 2000). The strengths and shortcomings of each were explored and illustrated through the literature review. In defining community, the review also introduced the concept of community as a complex system of interactions on the individual level as well as on the group level. This

is a novel approach that is not common in the literature and is likely to be due some further explanation later in the dissertation.

The approach of this research may cause the non-Systems thinker some confusion. There is, of course, an unfortunate dichotomy set up by the use of the word "system" alone. The term system is now in the vernacular used beyond its practical value in science and yet inventing new terms attracts the criticism of obfuscation and lack of clarity from the use of "jargon" (Checkland, 1988). The die was cast upon Bertalanffy's (2003) use of the term to describe a science that assumes the world contains structured wholes which exhibit characteristics specific to their "wholeness" (Checkland, 1995). For this reason, to preserve or enhance clarity, the researcher uses throughout this research the capitalized word System to be in keeping with the use of the word as a Systems thinker might use it – essentially implying an input, a transformation of this input and an output. All other non-capitalized uses of the term such as those from the data collected or in quotations used from the literature review should be considered outside of this definition.

The language, ontology, and epistemology of Systems thinking are described and deployed throughout the paper. This was a research project that introduced a new way of thinking about issues that have been created by an old way of thinking. For this reason, the literature review on the subjects of community, engagement, and opposition includes a description of Systems science with sufficient detail to give the unfamiliar reader the acquisition of a good level of understanding of this type of thinking. While the literature regarding community engagement is vast, very little has

been researched in terms of applying Systems thought to how community opposition is triggered.

The literature review continued with a similar approach to the search for a definition of engagement. The term itself implies an action and as such demonstrates certain qualities that can be typified. As mentioned previously, these types of engagement are revealed within the review. Once complete, the review turns to the synthesis of a Systems explanation of the concept of engagement and the typology of engagement found in the extant literature. This explanation of a Systems view of engagement is critical to the research in that it quickly forms the basis for an explanation and an extension of the current literature and theories. Many characteristics of transformational engagement are explained by the theory of conversations (Pask, 1996). This synthesis lays the groundwork for testing the explanatory contribution that conversation theory can make toward the formation of opposition groups in the domain of siting situations.

There are no clear definitions of community or engagement in the literature; however, the reader will now have a sound understanding of where within the literature these concepts lie - not definitively but a bounded area of comfort as to what they are and are not. The next subject of inquiry into the literature then was the explanation of why community opposition occurs. The most popular contemporary explanations include the Not In My Back Yard (NIMBY) theory and more recently the Not In Anyone's Back Yard (NIABY) theory.

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In general, and to be expounded upon within the review, NIMBY refers to the selfish attitude of opposition to a siting, geographically close to those who oppose it, grouped with an attitude of understanding of the need for the siting facility held by the citizens who oppose the site. While this is a widely held theory both in the vernacular and in the academy - to the point of the acronym having a dictionary definition - it is also a well-contested theory. Exploration of the theory, especially within the vast risk communication literature, suggests that many other factors are at work than those of the rather simplistic NIMBY theory.

Risk communication scholars in particular support that the communication of science to the public in cases of siting LULUs is many-faceted. These facets can be divided into two general categories: the technical realist category of the probability and severity of the risk associated with the siting and the social aspect of the risk, which may affect how the risk is either amplified or attenuated within the community itself. The literature regarding this bifurcation within the domain of risk communication leads to the introduction of the NIABY theory. This theory holds that opposition is not particularly interested in sitings anywhere and that the reasoning behind siting should be dealt with at the source through reduction of the production of toxins, the conservation of resources, and the elimination or drastic reduction of consumer-generated waste. The basis for the formulation of NIABY lies underpinned by the theory of reflexive modernization (Beck, Bonss, & Lau, 2003). While expounded upon in more detail in the literature review, this theory contends that society is not in a postmodern era but rather, in an era of risk. Risk aversion and a monolithic distrust of government,

society, and science typify this social theory. Beck et al. (2003) describe reflexive modernization as a shift in societal motivation from that of welfare in the industrial era toward the motivation of security in the risk era. Social mobilization in opposition to LULUs can be viewed as the risk society in action, motivated by ecological as well as social and political inequity. The risk communication literature acknowledges this social dynamic and draws on the theoretical premise of reflexive modernization to arrive at the need for a different kind of communication (Kasperson et al., 1988). It appears that the communication theory (Shannon, 1948) that underpins most of the risk communication literature is a less than appropriate theory when it comes to the transmission of information concerned with risk. Communication theory is primarily concerned with the transmission of a signal and the reception of the signal and how much degradation there is from source to reception - noise. This signal to noise ratio, however, does not easily incorporate the social aspect of communication or engagement of a community where risk communication is concerned. There is an aspect of attenuation or amplification of the purely technical realist probability and severity of risk that is entirely social in its incubation. The gap that seems apparent is that the community engagement literature and theory to date are deficient in a communication theory that overcomes the extant issues of socially derived amplification and attenuation of risk - both of which appear to be at the heart of opposition. Through the application of conversation theory, it was hoped to empirically test whether or not this theory can promote an alternate to the current communication theory in explaining the social role of communication in siting situations.

Herein lays the primary difference between NIABY theory and conversation theory. While NIABY is a theory that extends beyond the simplicity of NIMBY by incorporating a view of society reacting to the risk involved in modernization and exemplifies the importance of participation and communication, it does so in a generalized manner that presupposes the psycho-social repertoire of the participants in the situation. The difference between this and conversation theory is that conversation theory does not presuppose the condition of any of the interacting entities. Rather, it provides a means to measure the intelligence, the subjective aspects and the objective aspects of the interaction between two or more entities and provides a formalized modelling approach for this analysis. Conversation theory accomplishes this while still acknowledging that each participant will arrive at a conversation with a preexisting repertoire of experiences and understandings but does not generalize these to any specific list. Participants arrive at conversations with repertoires of concepts that through conversation are likely to be negotiated to novelty and agreement (including agreeing to disagree).

Given the gravity of the situation within this domain, the researcher proposed a research study that would be highly valuable in the establishment of the mechanisms at play that encourage the development of community opposition groups. This research identifies, through case study data collection (i.e. interviews), among other forms of data collection (archival records, media coverage, photos and video, etc.) with the founding members and those individuals suggested to have been instrumental in the formation of three community opposition groups: Oxford People Against Landfill (OPAL)

Alliance, NoDump.ca, and the Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE). These interviews focused on each founding member's perspectives regarding the interactions with the development corporation for each situation. The basis of the study was to analyze the interaction between three entities – in this case, industry, government, and community – in an effort to discover practices that were contributory to the formation of the opposition groups.

The research includes data collection and analysis of all pertinent communications and strategic activities both leading up to and following the formation of the community organizations and all available documentation from them through their ontogeny. This data was used to establish contexts of the phenomena and to supply data analysis and conclusions to support triangulation of interview data. Data from the interviews was collected by tape recording and analyzed aided by NVivo 11 Pro qualitative discourse multimedia analysis software with which the researcher is familiar and has used in practice. The data analysis culminated in the development of patterns to be compared with extant theoretical patterns from the theory developed in the literature review. Results of the analysis are codified in this dissertation.

Three case study reports are included in the codification and reporting of the data analysis. As mentioned in more detail in Chapter Three, the pattern matching methodology was used. The results provide a thorough analysis of both primary and secondary data and a test for "fit" with the two popular explanations NIMBY and NIABY and with conversation theory or more specifically with the pathology of conversation explanation.

The case reports are followed up with a cross-case analysis that summarizes the individual case findings and identifies convergences and divergences in the findings. The result of all cases individually in this research arrives at the rejection of both NIMBY and NIABY as viable explanations in their whole condition to answer the main research question. Careful application of the pathologies of conversation explanation and meticulous analysis of the data collected reveal that pathologies of conversation, grouped with the aspect of the sitings being in close proximity to the COG participants homes, in these cases is the viable explanation for why community opposition groups form. What is concluded then is that a combination of the aspects of the extant explanations is likely to best answer the research question.

1.1.7 Significance of the Research

Given that the combination is a viable explanation for the manifestation of opposition groups, a section on theory modifications illustrates the model and the development over time of the opposition group. This model depiction suggests that the most obvious implication for theory modification is the use of conversation theory and pathologies of conversation as an embellishment to the domain of risk communication research.

The implications section describes in detail the value of this research in improving legislation and process for community engagement in landfill siting situations. It is posited that legislation should be amended to eliminate a currently mandated announcement of the proposed undertaking which it is concluded is by design responsible for the immediate creation of opposition groups.

In addition to this aspect of the current legislation the researcher suggests that a protocol of engagement that is constructed based on the pristine model of conversation theory be adopted both in legislation and by industries interested in following a strategy of social responsibility, equity and harmony within the domain of landfill siting.

The paper concludes with the researcher's vision of future research including a dissemination strategy through traditional channels of conference-presented papers and publications. In addition to these traditional channels, it is hoped that future research will produce a general platform modelled upon conversation theory that could be used by governments and industry as a guideline for the construction of collaborative platforms for siting situations.

2   Literature Review

Figure 1 Word cloud derived from the Literature Reviewed

2.1   Introduction

This literature review was inspired by the increasingly prominent contemporary need for corporations to engage and interact successfully with communities. Community engagement has been forced to the fore as more and more communities demand influence on corporate behaviour and improved corporate responsibility (Bowen et al., 2008, 2010; Fiol & O'Connor, 2002). The review covers the community engagement literature that centers on the siting of landfills and other potentially controversial siting efforts such as prisons, toxic waste sites, mines, nuclear facilities,

and alternative energy installations. It followed a phased path toward "gaps", questions

and problems within the extant literature and is graphically represented in Figure 2.
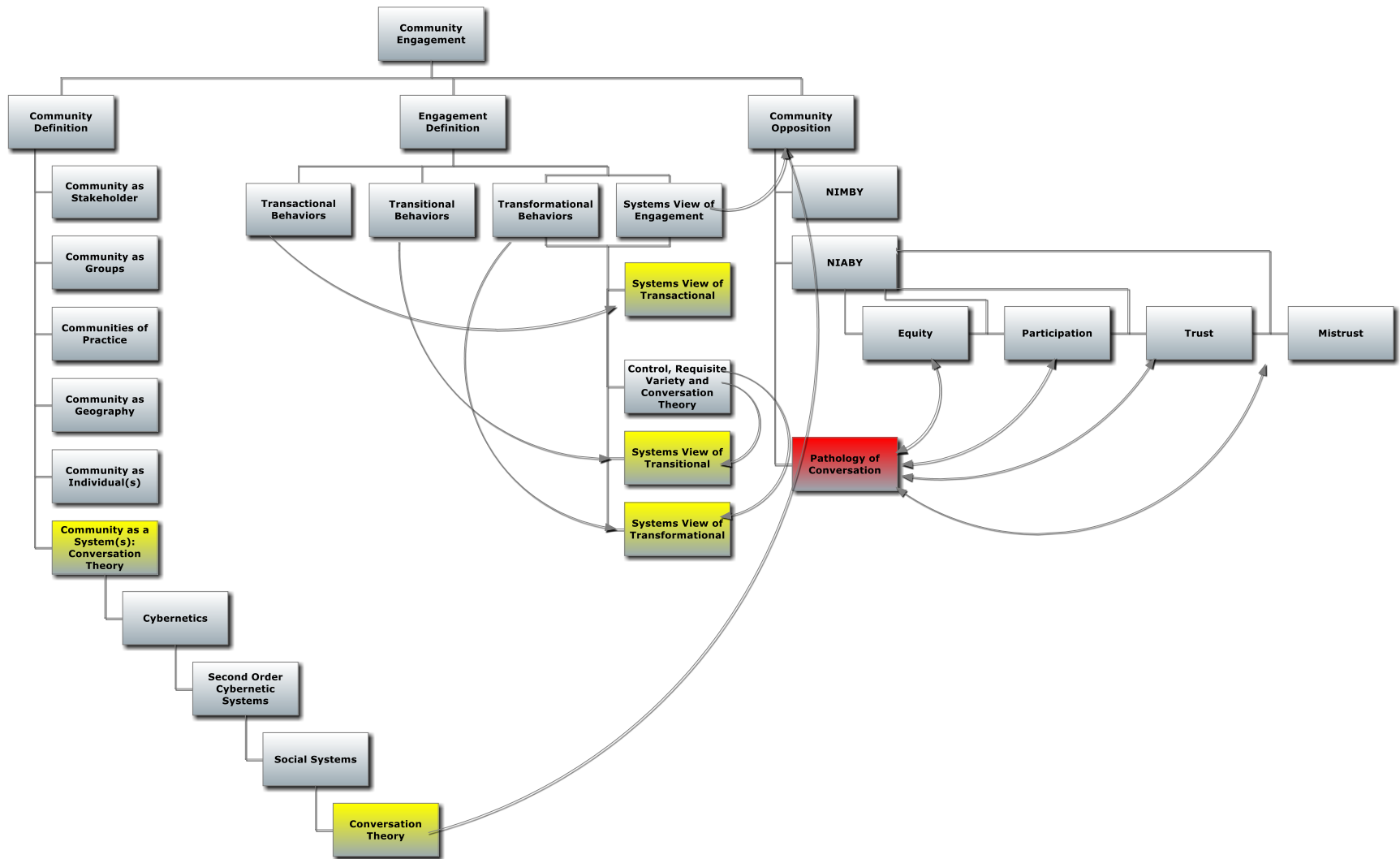
Figure 2 Graphic Representation of Literature review and Novelty of the Research

The initial foray into the literature revealed that there are myriad definitions for community. Therefore, the first step was to establish a definition or model of community for this research. Some of the more popular definitions that are implied by the literature and are described here are community as stakeholder, as group, as geography, as individual, as community of practice, and community as a System (Adamson, 2010; Anguelovski, 2011; Brammer & Millington, 2005; Cavatassi & Atkinson, 2003; Dunham et al., 2006; Fassin, 2011; Geoghegan & Pangaro, 2009; Newenham-Kahindi, 2010; Ogborn & Johnson, 1984; Wenger, 2011, 2000; Wenger & Snyder, 2000). The researcher finds that while all definitions have merit, most suffer a weakness of exclusion that renders them less than useful in all circumstances. It was concluded that a Systems approach that allows the modelling of the elements that compose a System, the boundary and the structural coupling to the environment - while not to be confused with an objective view of reality - was the most useful model of community for this research. A cursory review and explanation of Cybernetics leading to an introduction to conversation theory is also given to provide the reader with a foundational view of the concept of community as a System. This, as is illustrated, in Figure 2 and explained later in the review, flows in to the concept of community opposition and represents a novel perspective of community when exploring community opposition.

The review continues with the pursuit of a definition/model of engagement and concludes that engagement is a "behaviour inciting participation" ("engage," n.d.). Further investigation of the literature reveals that there are, in general, three points on a continuum of engagement that can be typified: transactional, transitional, and

transformational. The interactions of the corporation and community along this continuum vary from one-way limited participation/communication to full two-way communication and include empowerment, dialogue, influence, and deliberation among other attributes. A Systems perspective, especially that derived from cyberneticians Ashby, Von Foerster, Pask, Glanville, Maturana, Varella, Weiner, Beer, and Pangaro to name but a few, suggests that the cybernetics of conversation - conversation theory - has a strong explanatory value toward what is being witnessed in observations involving a transformational position on the engagement continuum. This view is depicted in Figure 2 through arrows of interplay between the extant theories and definitions of engagement and the Systems view. The yellow color of the Systems view boxes indicates areas of synthesis and novelty as well in comparison to the extant engagement literature.

As was the case for Lewin (1951), such was the case for this research, in that "there is nothing as practical as a good theory." This review establishes a model of conversation theory to be used as a benchmark or pattern for analysis of field research in the case of community and industry engagement centered on landfill siting. As a practitioner and a Doctorate of Business Administration student, the researcher has searched the literature and narrowed down the selection of a model/theory that best lends itself to providing insight regarding a specific phenomenon. In this sense, theory is not being approached as a domain to be contributed to or improved upon but rather to be used as a tool that would serve to provide insight as a function of its rigorous formalization and support the investigation with its application.

Finally, this review succinctly detailed the subject of community resistance in siting situations and the literature that suggests the impetus for such resistance. This literature was explored to provide the reader with an understanding of three of the prominent theories explaining community resistance in siting situations. These three theories, while arguably having some areas of overlap, are often used complete in their own right as explanations of community resistance in siting cases. Because of their prominence in the literature, they were used as benchmark rival theories in the research analysis that followed the data collection.

2.2   Community

Since the focus of this research was concerned with the study of community engagement, it is prudent that we must first establish a common ground definition/model or at the very least a useful definition/model of "community" and "engagement" so that we can clearly discuss from a specifically understood ontology/epistemology the phenomena at hand. Definitions of "community" abound within the literature. The exhaustive history of exploration of the term "community" is one that, as Dunham, Freeman, and Liedtka (2006) state, has been pursued by "philosophers, psychologists, sociologists, anthropologists, political scientists, even urban planners… somewhere we suspect, are yet to be interpreted cave drawings defining the term" (p. 27). One study of literature, which is quite old, maintained over ninety differing definitions for community with only one common factor among them - they all dealt with people (Hillery, 1955). Throughout the literature there are several implied definitions of community. The six most prominent are: Community as

Stakeholder, Community as Groups, Community of Practice, Community as Geographic Delineation, Community as Individual Citizens and Community as a System (Adamson, 2010; Anguelovski, 2011; Brammer & Millington, 2005; Cavatassi & Atkinson, 2003; Dunham et al., 2006; Fassin, 2011; Geoghegan & Pangaro, 2009; Newenham-Kahindi, 2010; Ogborn & Johnson, 1984; Wenger, 2011, 2000; Wenger & Snyder, 2000).

Each of these types was reviewed in the following sections of this research; however, it stands to reason that each of the categories may contain many different variations within it—all certainly valid within the context of what is being described. We know from Systems science that our biology alone affords us all little access to the universe unfolding (Dell, 1987; Maturana, 1978, 1988; Mingers, 1990, 2006; Whitaker, 1991) and thus we must be satisfied that many views will make up an approximation of what it is we are describing – in fact a multiverse that we are a part of and that changes as we act within it. This is in keeping with a radical constructivist epistemology espoused throughout this research.

We also conclude from Systems science and other sciences that, while there are likely to be discernible patterns emerging at the boundary of the chaos, dynamic Systems, such as those we might like to bound as communities, are in constant flux and as such are impossible to define entirely (Coveney & Highfield, 1996). For, as we define them they change before our eyes into something that reaches outside of those boundaries.

To further exacerbate the researcher's difficulties in the pursuit of a community definition, many researchers do not clearly define what is meant by community (Bowen

et al., 2010). Generally, within the literature, the definition of community is implied, and as such the researcher has captured at best these implied definitions. This phenomenon is somewhat complicated by the disregard for one definition/model by other definitions/models. For example, Community as a geographical delineation may disregard the quality of the interactions between the members of this geographical delineation (Bowen et al., 2010). Each of the possible definitions/models carries with it some weakness dependent on the perspective of those who might use the definition generally.

2.2.1   Community as Stakeholder

A common theme in the engagement literature is to classify the community as a stakeholder or a group of stakeholders in the discernment of how this "thing" might be approached and/or managed (Abzug & Webb, 1999; Brammer & Millington, 2005; Caputo, 2013; Coronado & Fallon, 2010; Dunham et al., 2006; Heiman, 1990). Within the stakeholder literature, "community" tends toward being used as a "catch-all" term in which other easily identified groups such as consumers, customers, suppliers, shareholders or non-government organizations do not fall (Abzug & Webb, 1999). However, this is a dangerously broad definition, which is likely to marginalize certain members or dilute the view of community from which special interest groups emerge rather quickly and with profound effect (Dunham et al., 2006). Certainly, with the case of the stakeholder definition, the definition of the "other" stakeholders allows one to view community as that which has not been defined in any other way; however, this type of definition is of limited use and awkward at best. In fact, it is theorized that

stakeholder theory, when used by organizations vague in their definition of "stakeholders," may define a set of stakeholders that are easily identified and more easily appeased while disregarding a large group of those who might be most in opposition and/or marginalized or overlooked as a consequence of the objectives of the organization. In this sense stakeholder theory can tend toward complicity with inequity—a giving with one hand while taking with the other (Coronado & Fallon, 2010).

Generally, the definition of stakeholder is a group on whom an organization relies and without whom they may fail or whose influence may be either positive or negative toward the goals of the organization. In the case of this research, it is important to see this relation, for without some sort of community dynamic, whether that be protagonist or antagonist toward an organization, there is no need to answer the question of why these groups form. In this sense, community as a stakeholder had some validity for the researcher's pursuits in this research.

From a Systems perspective, the characteristic definition/model of community as a stakeholder implies a relation of dependence between the organization and the thing called community. Thus, the interaction of the community stakeholder and the organization can be seen to be complementary and positive toward the objectives of the organization/community or resistant and negative toward these objectives. Presumably, the complementarities of the relation would, regardless of different behaviours of each stakeholder, serve the joint interest or preserve the identity (Rowley & Moldoveanu, 2003) of each stakeholder in the pursuit of a commonly acceptable objective. A third

characterization of these relations would be that of a neutral relation in which the stakeholder was neither a proponent nor an opponent.

One observes the implied definition of community as stakeholder when one explores the literature dealing with the theory defined as "Not In My Back Yard" (NIMBY) and the more recently defined "Not In Anyone's Back Yard" (NIABY) theory (Heiman, 1990). The researcher will explore these theories further at a later point in this review.

As mentioned previously, viewing or defining the community as stakeholder is somewhat flawed to the extent that it may even marginalize or neglect some groups. Next, the researcher reviews the literature regarding community defined as groups.

2.2.2   Community as Groups

Communities are certainly characterized, defined, or modelled as groups within the community engagement literature. What is unique in defining communities as groups is that they need not be bound geographically and may represent groups who share a sense of belonging—tied together by common values, interests, beliefs, or experiences—and possibly spread across a vast geography—possibly global (Dunham et al., 2006). Community groups can be defined as either proponents or opponents to certain activities in certain contexts, and their views and perspectives provide the observer with an idea of how they might react to a certain proposition—positive, negative or neutral. The range of community groups can be vast and include hobbyists, religious groups, charitable groups, and political groups, among others (Dunham et al., 2006).

Viewing or defining community as a group does not preclude defining the community as stakeholder but rather disaggregates the whole into parts that are perhaps better defined in their activities and perspectives. In this sense then, stakeholder theory pervades the "community as groups" literature—especially when one considers community-industry interaction and relations (Dunham et al., 2006).

Contemporary technology has played a role in the velocity and diversity with which community groups form. Recent community opposition movements at world trade summits in Toronto, Washington D.C., and Seattle have demonstrated that through the internet and advanced communication technology, new groups are aggregating in the community who may have previously been seen as distinct groups with distinct perspectives on somewhat specialized community movements; the UAW and Tree Huggers and Turtle Lovers presenting a united perspective toward the forming of the "future" in Seattle for example (Dunham et al., 2006). The speed and unpredictability of the formation of new groups add to the difficulty of managing and defining community as groups, as this is tantamount to predicting the future accurately and consistently.

Certainly, the literature provides many references and implied definitions of community as groups in terms of a group of people living in the same locale or having common interests, with a similarity of identity (Fiol & O'Connor, 2002). Community groups that form in opposition to actions or movements quite often ending in violence are most commonly referred to as "groups" in the literature (Anguelovski, 2011).

Technology is not the only factor that causes difficulty in defining community as groups. There is a definite interplay of geography in situations as well. Groups may differ greatly in terms of human and social capital. Geographical separations such as rivers or even highways may cause social differences such as a difference in general levels of skills, capabilities, intelligence, and education (human capital) or social networks and norms of reciprocity and trustworthiness (social capital) (Anderson, Schirmer, & Abjorensen, 2011). The researcher will explore the geographical definition of community further a bit later in the review. First, the researcher will review the possibility of community defined as communities of practice—a somewhat different view than community as groups.

2.2.3   Communities of Practice

As mentioned previously, a special type of community group is the community of practice. These specialized groups share an understanding of the group perspective and an underpinning understanding of what is being done by the group. The implication is that they are united in action and philosophy in their interactions and interdependencies within their environment. Most often these specialized groups are seen as tightly knit creative collectives from whom creative work emerges collaboratively.

Certainly, the roots of this concept are founded in the concept of Gemeinschaft—community with common beliefs (Anderson et al., 2011; Dunham et al., 2006; Walton & Rivers, 2011). The concept is, however, somewhat limited, as it is dependent on a communal and geographic definition that falls short of more

contemporary definitions of community. Still, place-based definitions are prevalent in the literature and will be explored next.

2.2.4 Community as Geography

As mentioned previously, quite often within the literature, community takes on a geographic definition/model. Often, government or Industry will define initiatives and subsequently define/model community as that which is happening in a geographical area—an area of gentrification or a geographical market (Adamson, 2010). The concept of Gemeinschaft is influenced by a place-based perspective and as such has influenced a great deal of theorizing to date (Dunham et al., 2006; McMillan & Chavis, 1986; Walton & Rivers, 2011). The examples of place-based interaction between industry and community have certainly helped in the widely-implied definition of community as geography.

A group or community defined by geography may not necessarily define itself as a community in the sense of a town or city but may see itself as separated by deep-seated emotional differences (Fiol & O'Connor, 2002). In this sense, the geographical definitions of community may well be imposed upon the group by onlookers or by other groups outside of the geography. In the way that it is difficult for a fish to discover water, it is possible that geographical definitions of community are imposed on those who might be included. While this is certainly a limitation, it is also an important component of the NIMBY and NIABY theories. Without the community as geography definition, it may be difficult to define community in a comprehensive and meaningful

manner. However, as is the case in several contemporary assessments of community, it may well be a nonfactor in other definitions (Bowen et al., 2008).

As the community as groups was a refinement of the view of community as stakeholder, it is possible that the definition of the community as individuals has much merit as well. The following section of this review explores this theory.

2.2.5   Community as Individual(s)

Certainly, one cannot deny that the interaction of people—individuals—constitutes at the lowest common denominator the essence of community. One cannot state that a community can be comprised of a singular individual; however, it is the interdependencies, interactions, and relations of these individuals that form the catalyst for that which might be bounded as community. There is some credence to be handed to the place in which these individuals reside—whether that is virtual or geographical—and that the individuals in interrelating might appear as groups identified as stakeholders. However, essentially, one observes the countless relations of people in a context. As a Systems thinker, one observes the interactions, interdependencies, and relations of the elements that define/constitute the System: community. We decide what community is and what it is not—a boundary to the System knowing fully that everything is interconnected and all are elements of the total or comprehensive "real." At the base of the definition of the community as individuals is the concept that the individual holds a "sense of community" (McMillan & Chavis, 1986)—an individual concept of community.

The vast community psychology literature provides much observation and theorizing about the individual and group "sense of community." McMillan & Chavis (1986) define sense of community as being comprised of four elements: membership, influence, integration and fulfilment of needs, and shared emotional connection. The definition that these researchers propose is as follows: "sense of community is a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through the commitment to be together" (McMillan & Chavis, 1986).

Some debate remains as to whether this sense of community manifests at the group level, at the individual level, or whether it manifests at both (Chavis & Pretty, 1999). Of interest is the concept that community may well be an emergent phenomenon of individuals and that there may be a reciprocal or self-reinforcing feedback set up which is community—individual sense of community feeding group sense of community and then group sense of community feeding individual sense of community (See Figure 2). Regardless of the validity of this claim, it is easily managed intellectually that the concept of community as individual must begin with some sense of community at the individual level, i.e. community defined as individuals.

Emergent
Organizational Sense
of Community

Emergent Sense of Community
Feeding Individual
Sense of Community

Individual Sense of Community Interacting
at the Element Level
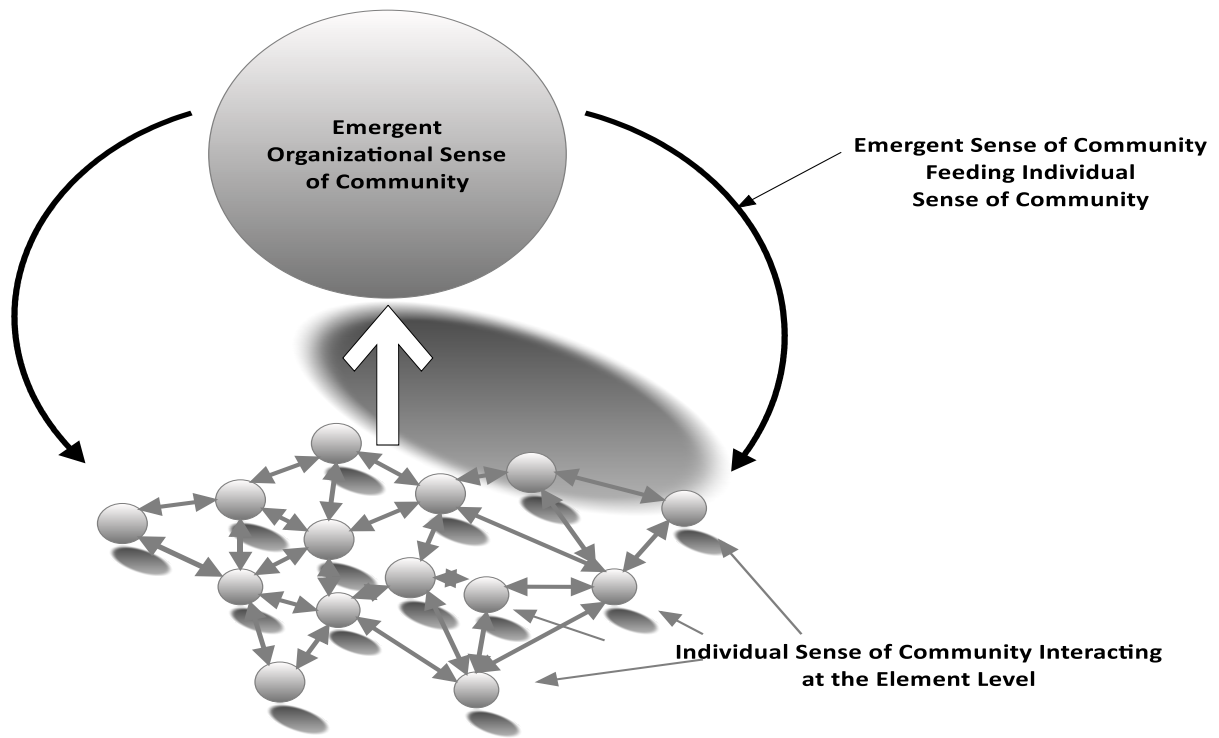
Figure 3 Emergent Sense of Community from Interactions of Community Elements

2.2.6   *Community as a System(s): Conversation Theory*

Figure 2 implies an emergent sense of community as a psychosocial System

(Pask, 1996) emergent from the individual conceptual Systems (or repertoires) of its

elements and their interactions – primarily through conversation. On its own, this is a

Systemic perspective of the thing, the concept, describing "community." The researcher

suggests that this is the interaction and interdependencies of the elements producing an

emergent collective sense of control, behaviour, and characteristics—including the

ability to deal with external threats (McMillan & Chavis, 1986). This is not to say that the

Systems perspective should preclude the other definitions, models, or perspectives of

community, as this would not comply with the understanding that has evolved of

Systems in general. The geographical context of the System in general may—as in the NIMBY phenomenon—or may not—as in the virtual community—have a bearing on the community System in question. Certainly, community as stakeholder is a means of drawing boundaries around different groups within a System and observing the interdependencies and interactions of these groups or individuals within the System. It does, however, still hold an intellectual posture that would imply that these groups exist clearly defined and objectively identifiable as units to be controlled.

One can easily perceive of community at its most basic of levels: the interaction of two elements or in this case, individuals. The essential interaction or relation between two individuals is the conversation (Pask, 1981)[1]. In fact, we may observe that there is an inner dialogue that occurs in the mind of each individual that compares and contrasts conflicting perspectives and allows us to arrive at novel additions and deletions from our belief Systems (Pangaro, 1989)—community as individual. The definition/model of the community as a System is perhaps most adequately described and formalized in the cybernetic approach taken by Pask in his many explorations and formalizations of conversation theory (Pask, 1976, 1981a; Pask, Scott, & Kallikourdis, 1973). For, as the researcher will illustrate, conversation theory is the encompassing of all the previously explored definitions/models of community without being domain specific (Scott, 2001). Pask, who was once described as a cybernetician's cybernetician by Heinz Von Foerster (one of the founding fathers of cybernetics), developed a theory

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[1] The researcher does not make use of Pask's concepts of the Psychological (P-) Individuals and Mechanical (M-) Individuals as it was deemed that these were unnecessarily complex for the purposes of this research.

that is based in cybernetics and can be applied to the interaction of any two or more language-based beings (Pangaro, 1989).

2.2.6.1 <u>Cybernetics</u>

It is important at this point to explain, at least superficially, the underpinning theory of cybernetics and its roots and then lead the reader to understand the underpinning theory and workings of conversation theory. Of course, before proceeding further, it is prudent to mention that Pask's conversation theory is not the only Systems-based theory that claims to model community or society. However, it exceeds by far the scope of this research and review to expand upon the myriad modelling that has occurred within the Systems thinking domain that pertains to society and or community. In fact, a great deal of the intellectual achievement and pursuit within the domain of Systems thinking has had to do with the subject of organizations of which social organizations have been a focus. While some of these theoreticians and practitioners will be cited, both predecessors and descendants of Pask, the reader is encouraged to look further into the works of Humberto Maturana and Francesco Varela (Maturana, 1975, 1978, 1988; Maturana & Varela, 1980), Niklas Luhmann (Luhmann, 1986, 1990, 1996), and Felix Geyer (Geyer, 2002, 2013; Geyer & van der Zouwen, 2001), to name a few of the large number of intellectuals that have contributed to the conceptualization of Systems-based models of human activity. All the Systems-based models draw on Systems theory (Von Bertalanffy, 2009; Von Bertalanffy, 2003), not the least of which is the Systems understanding of cybernetics and its application to human organization.

Cybernetics, which is derived from the Greek word for "steer" or "steersman," has its seminal root in the work of the same name by Weiner (1965). Weiner (1965) took the word to describe a form of science that was involved with the definition and study of Systems that demonstrated a change in their output, based on a change the Systems had originally made in their environment which became their input. This concept became known as "feedback." Just as a steersman moves the tiller of a boat to change the output (direction) based on a variance in course caused by a change in the environment (wind speed decrease/increase) so a cybernetic System changes based on its feedback loop(s). The phenomenon of feedback is common to goal-seeking Systems, and the ongoing process of input-output feedback correction to input repetitively is the causal looping that is a foundational component of cybernetics (Heylighen & Joslyn, 2001). Communication is an important aspect of cybernetic Systems in that there must be a communication of results of adjustments in output to the environment for the System to effect further change or correct again—feedback.

For example, if we consider the common household thermostat and furnace function, we see the configuration and logic that is implied (Figure 4). Here, the furnace is a System that transforms fuel into heat energy and sends a flow of energy through a medium to a space (environment). The goal is the room temperature set-point, which is "read" by the thermostat. If the room temperature falls below the setpoint (goal) of the System, a signal is "fed back" to the fuel valve and more fuel is supplied to the furnace System. Thus, more heat energy is sent to the room, and when the set-point is achieved,

the thermostat sends a signal to decrease or stop the flow of fuel. The System maintains "control" of the room temperature—the goal—by means of feedback.
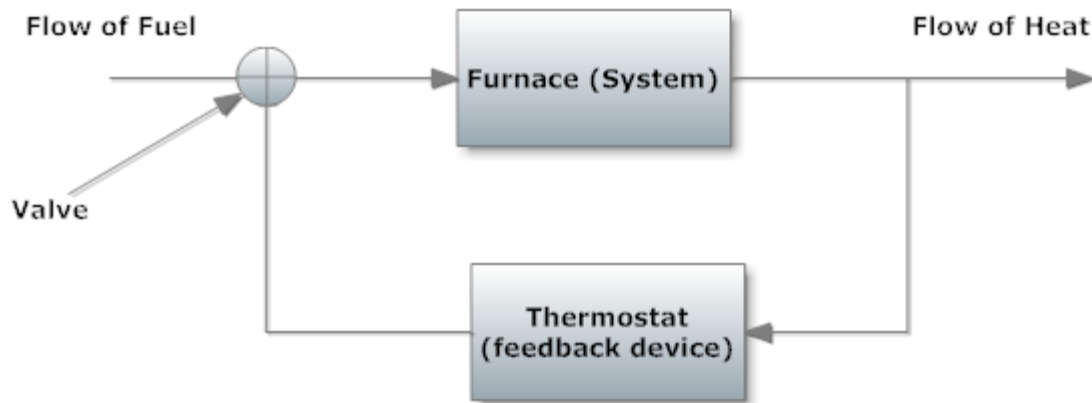
Figure 4 Household furnace model of feedback in a goal seeking System

In this example, it should be noted that while the System is a goal-seeking System in that it adjusts its inputs and outputs according to a set-point on the thermostat, it cannot adjust that goal. The System is self-regulating but cannot adjust its own goal. Goal adjustment must take place outside of the System by some other System such as a building occupant walking over and adjusting the set-point. This type of self-regulating System is thus called a "first order" self-regulating System (Dubberly, Pangaro, & Haque, 2009).

This differs from the linear System in Figure 5 in that there is no self-regulation. The System in Figure 5 is as an open System that must be regulated externally, or its output is turned into an input of another System that may have a self-regulating loop. This type of System is often referred to as a zero order System. Examples of this type of System might be a fire, an infrared sensor, or a kitchen sink with an input (tap) and an output (drain). It is not certain in any of these examples that the System has a goal and certainly it does not regulate to a clearly defined goal.

Flow of Fuel   Furnace (System)   Flow of Heat
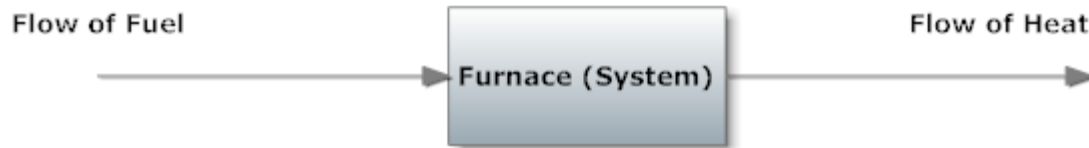
Figure 5 Linear System Open Loop Zero Order System

The definition of cybernetics is varied among authors. Weiner was most interested in cybernetics as the study of "control and communication in the animal and the machine," Dubberly, Pangaro, andHaque (2009) define cybernetics as being about having a goal and taking action to achieve that goal, and to Heylighen and Joslyn (2001) "[c]ybernetics is the science that studies the abstract principles of organization in complex Systems. "It is concerned not so much with what Systems consist of, but how they function" (p. 2). (For many further definitions of cybernetics, please see "ASC: Foundations: Defining 'Cybernetics,'" n.d.).

A deeper analysis of cybernetics, which has become a central part of cybernetics theory, is called "second order cybernetics" (Glanville, 2004). Second order cybernetics or the cybernetics of cybernetics can be explained as the observation of an observing System or the control of a self-regulating System. This type of System, it is suggested, can be considered a learning System (Boyd, 2004). Figure 6 depicts schematically what is implied in the general sense by the term second order cybernetic System. Here we see the initial self-regulating, first-order cybernetic System, taking corrections or a resetting of its goal (goal 1) from a second cybernetic System (goal 2). Both Systems have feedback of equal value from the environment, yet there is a hierarchy of control which favours the second System by means of the ability to reset the goal of the System (goal 1) through its assessment of the environment.
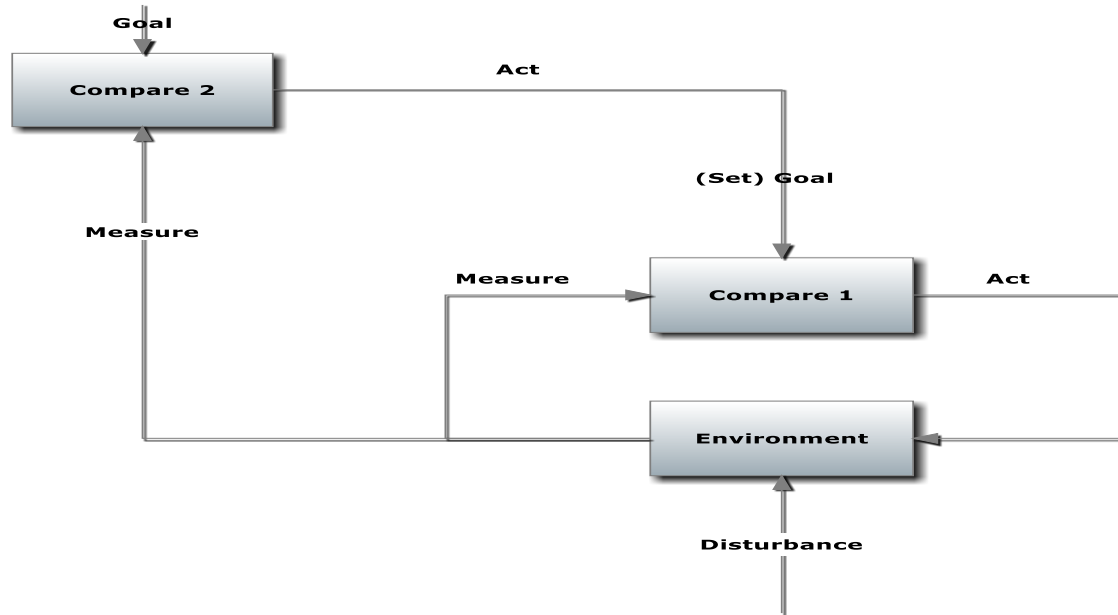
Figure 6 Second Order Cybernetic System (Generic) as adapted from Dubberly et al. (2009)

Thus, we have at our disposal a simple typology of cybernetic Systems: the linear System, the first-order cybernetic System, and the second-order cybernetic System. To expand on the exploration of the Systems at hand, we look to the literature to guide the combination of Systems in more complex yet empirically supported forms. First, we consider the combination of two linear Systems, the output of one becoming the input of the next (see Figure 7). This simple System may be seen as the automatic door opener at the grocery store that takes its signal to engage based on a customer standing on a weight-sensitive mat or passing through an infrared beam. The first System, the customer/infrared beam combination, pushes the second System, the door opening mechanism, to engage. No choice is made by the second System to react, and the first System pushes this signal through without any variety. It works or it doesn't. Pask (1981b) defines this type of interaction between two language-based Systems as "it-referenced." The reasoning that underpins this definition/model of two series-related

linear Systems is that the first System signals the second regardless of the second's

desire to be signaled. The second System has no choice but to accept input from the first

System's output (Dubberly et al., 2009); the second System is treated by the first as an

"it." The researcher will highlight the importance of this type of System later in the

review.

Figure 7 "It" Referenced System—One Linear System Feeding Another as adapted from
Dubberly et al. (2009)

The next combination of Systems is the linear System output feeding the input of

a first-order cybernetic System. An example of this can be seen as a perturbation from

the environment in which a self-regulating System is imposed, such as the increased

load on the furnace as the temperature in the building drops (see Figure 8).
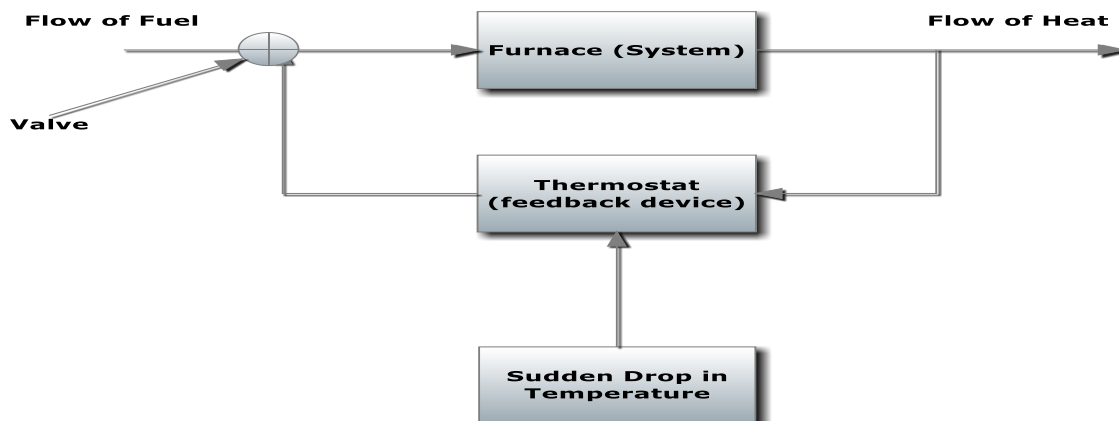
Figure 8 Regulating System—A Linear System Driving a Self-Regulating System as adapted from
Dubberly et al. (2009).

2.2.6.1.1   *Second Order Cybernetic Systems*

From this point in the Systems combinations typology, the Systems become more complex and perhaps of more interest. To briefly recap, we have Linear Systems—zero order (0), Self-Regulating—first order (1), and learning Systems—second order (2). The combinations then can be 0-0, 0-1, 0-2, 1-1, 1-2 or 2-2. Thus far, we have explored 0-0, 0-1, and 0-2 Systems. The learning System or second order System is a linear System "informing" a first order self-regulating System. Of interest in this combination is that the first order System supplies input to the linear System and this closes the second loop. This System may be reduced to a 0-1 System if the first order System does not provide input to the linear System.

A 1-1 System is the coupling of the outputs and inputs of two self-regulating goal-seeking Systems. This type of System, known as a balancing System, is important to our understanding of functioning social Systems such as financial or political Systems (Dubberly et al., 2009). The output of one System is the input of the other and so on. Should the input-output relationship break down between one and the other of the first order Systems, then the 1-1 balancing System is reduced to a 0-1 with the obvious associated pathologies. This is of import to this research and will be clarified later.
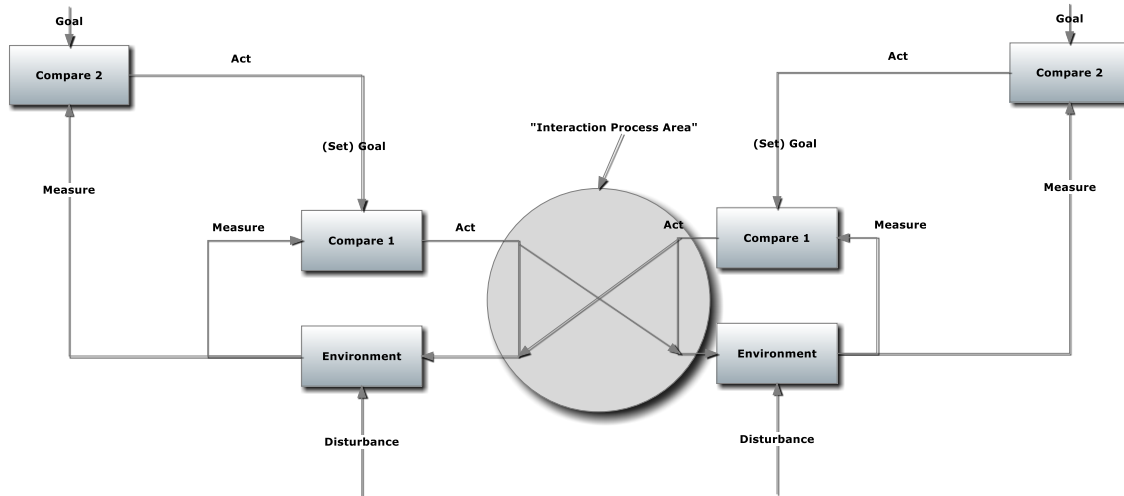
Figure 9 Conversing System—the Grouping of Two Second Order Systems "Conversing" through Interaction Process toward Common Concept Understanding as adapted from Dubberly and Pangaro (2009)

The 2-2 System (Figure 9) can be considered a "conversing System." This combination is a rather sophisticated System where the output of one learning System becomes the input for another learning System and vice versa. This type of interaction of Systems is at the basis of conversation theory. The model is one that is referred to as the "I/You Referenced" interaction (Pangaro, 1989, 2007; Pask, 1981b). In this case, the combination of the two learning Systems set up in an interaction where the output of the first is taken by the second and the output of the second is taken by the first; however, each System is at liberty to provide output or not. The inputs and outputs then are not strictly "control" mechanisms but rather exchange mechanisms. Outputs can be requests for inputs or commands, but there is choice on the part of the other System to accept these outputs as inputs—to respond. The two learning Systems may now through this interface "learn" from each other and define common goals—by becoming

better informed about each other. This is not the same as Shannon and Weaver information transmission. It is a constructive process through exchange of common information. The process is one that iterates back and forth freely—each System comparing an individual concept with an emerging shared concept until perhaps consensus is reached. Emergence of a structure from a System without the need for external intervention is the basis of self-organization (Heylighen, 1997; Heylighen & Joslyn, 2001; Pask, 1981b, 1996). It is important to note that this is also the simplest form of this interaction and that it may be nested upon itself and other conversing Systems several times over—forming communities or markets.

2.2.6.1.1.1 Social Systems

Boulding et al. (2004) explain a hierarchy of Systems which one can identify in the preceding explanations of cybernetic Systems following the orders from zero through second and then identifying the combinations. The hierarchy that Boulding et al. describe is one that includes the levels of 1) static structures such as the Copernican Solar System, 2) the simple dynamic System like the clockwork of the solar System, 3) the control mechanism where we identify the initial grounding of cybernetics—the thermostat, 4) the open System, which is the introduction of simple forms such as cells—reproduction and maintenance, 5) the genetic-societal level where groups of cells collect and divide function—specialization, 6) animal—teleological, self-aware, mobile and a great increase not only in information input and output but in the nervous System and its complexity, 7) the human level demonstrates self-reflection and self-consciousness, 8) the social level—which is of the most specific interest to this particular

research—delineated by the organization of humans in a System, and 9) the transcendental System—those Systems of the unknowable. As mentioned, the social level System is of great interest to this research. There is a definite hierarchy implied by the concept of a social System in that it is composed of human Systems—more than one—and so, one can observe a human System singularly but not a social System composed of one human System. This lends to a basis of understanding of the emergent collection of social organization which conversation theory describes. This ontology places the priority not on the individual human System but rather on the "understanding-constructing processes" and the world organizing and restructuring discourse—conversations—that take place between the elements of the System (Boyd, 2004). Thus, what Boulding et al. have suggested as being the highest level of System next to the System(s) of the unknowable, the social Systems composed of humans, are indeed "a set of roles tied together with channels of communication" (Boulding et al., 2004, p. 136), and conversation theory formalizes and produces at least an intellectual model of what and how this System consists of and emerges from (Pangaro, 1989; Pask, 1979, 1981a, 1981b, 1996; Pask et al., 1973).

2.2.6.1.1.1.1   Conversation Theory

This research adopts the model of community as an emergent entity resident in the understanding of the elements of the System regardless of their location geographically and possibly as disaggregated as the individuals that comprise and calculate the entity of community. It is perhaps prudent to describe what is meant within the domain of conversation theory as a concept. The concept at its essence is the

thing that is shared either in part or completely by the participants in a conversation. The domain of all concepts in their entirety is the mental repertoire of a participant or participants in a conversation (Pask, 1996). The concept in conversation theory can be seen as a process. While each individual may possess a stable concept, such as the concept of a circle (see Figure 9), each individual in the process of conversation transaction regarding the concept of a circle may, in fact, adopt a slightly different understanding through negotiation of the concept, by the end of the conversation. The end of the conversation is signaled by an agreement on a somewhat different concept of a circle—including an agreement to disagree (Scott, 2009). For example, a circle may be described by one participant, participant A, as being scribed on a plane by placing a point on the plane and drawing from that point an equidistant arc starting at one point and ending at the same point—similar to using a compass (Figure 10). Participant B in this example may well see the circle as that being sliced infinitely thin from the end of a cylinder (Figure 9). While both concepts are correct and stable (Figures 11 & 12), through the interaction or negotiation of conversation the participants may arrive in agreement with a new emergent yet stable concept of a circle (Figure 13). The product of the conversational process in this example is the concept of a circle that is indeed flat and round and may be sliced from a cylinder or scribed with a compass (Figure 13). Concepts stable at one time and resident in the mental repertoire of an individual or many individuals are dynamic and fluid over time. The concept is subject to the constant recursion or dance of the conversation (Pangaro, 2011b) between individuals—stable at a point, yet longitudinally fluid and dynamic.
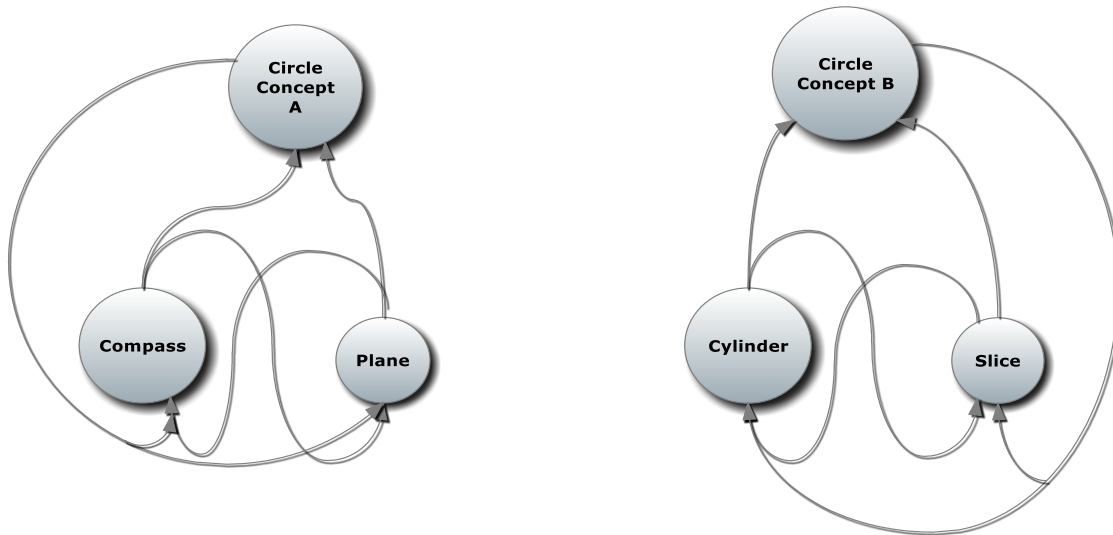
Figure 10 Initial Condition of the Conversation as adapted from Pask (1980)
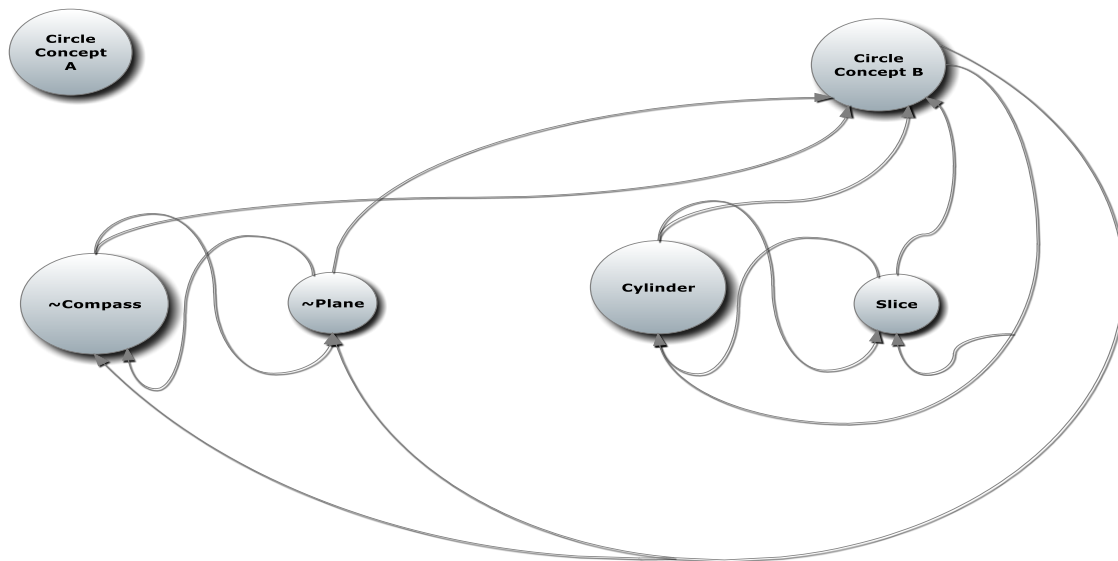
Figure 11 Participant B's repertoire after agreement as adapted from Pask (1980)
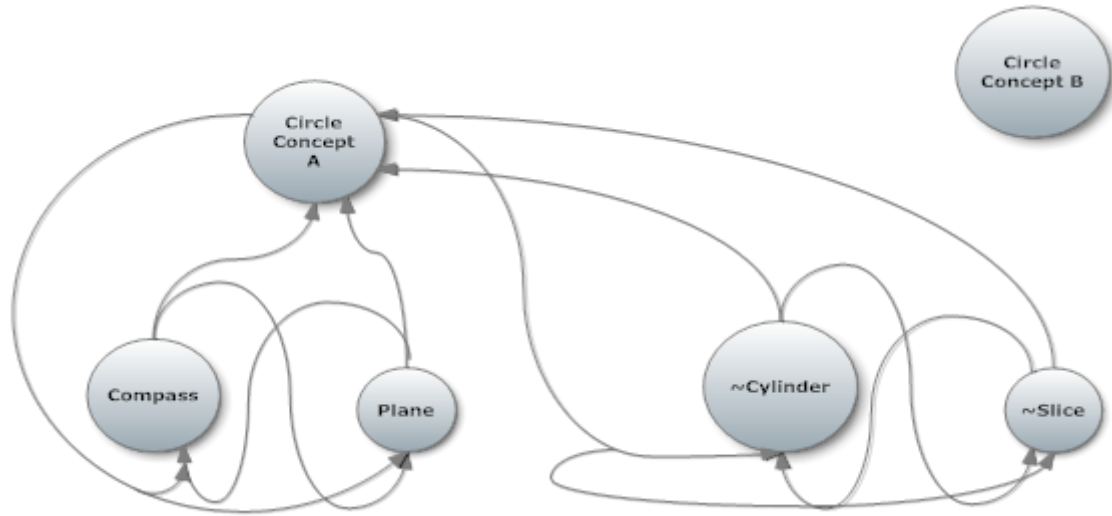
Figure 12 Participant A's repertoire after agreement as adapted from Pask (1980)
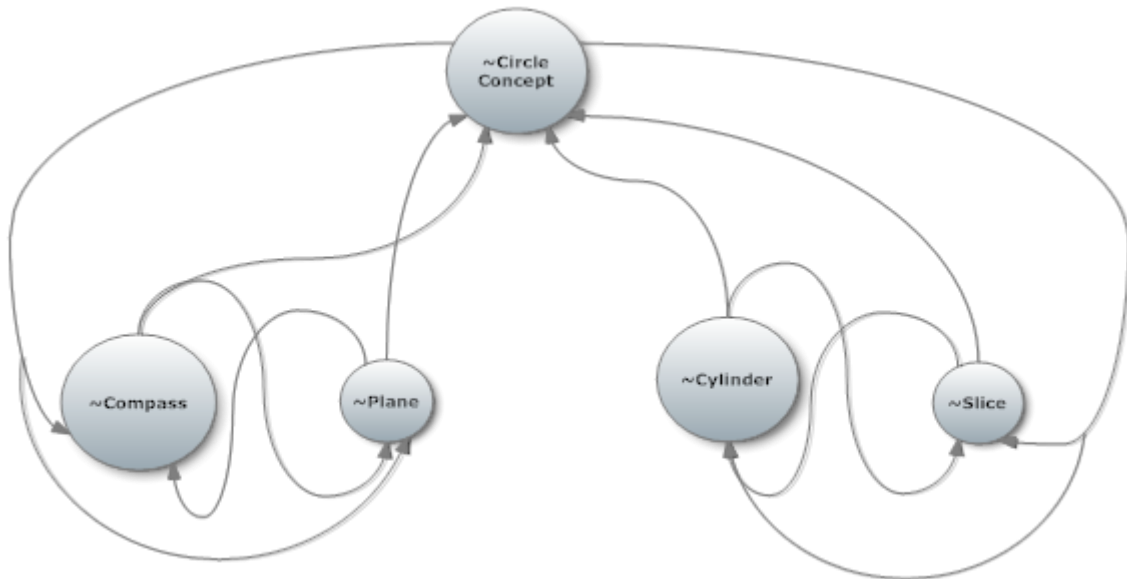
Figure 13 Shared Concept between participants as adapted from Pask (1980)

This model is an approach that relies upon the theory of self-organization where structures are emergent from Systems—in this case, a System of conversation(s). Community then can be seen from a cybernetic perspective as a conversation-concept-process that is resident at all times in the mental repertoire of the participants (individual(s)) of a System of conversation. For example, engaging another in a conversation is likely to entail the adaptation of two separate and unique concepts into a new and different stable concept. While this explanation is one of a model, it is not entirely infeasible that it is in part or whole a viable explanation of what community is. If that were the case, then it is not odd that definitions and explanations of the concept of community are difficult given an epistemology or ontology differing from Systems thinking. Community is at any time stable and over time unstable and fluid. It is self-organized within the mental repertoire(s) of the participants involved in the conversation regarding the concept. Stable concepts of community reside in the mental repertoire until they are altered through conversation, whether that is within the individual or between at least two participants. The researcher moves now to detail the literature and the interactive dynamic known as engagement, as this is another general aspect of the research into community engagement.

2.3   Engagement

Of interest specifically in this review is the interaction of two Systems—specifically industry and community. For current purposes, the researcher will explain "industry" as one that encompasses the employees of the organization who are directly involved with the engagement of the community in question. The researcher directs the

illustration toward a Systems view of engagement, yet before immersing the reader entirely in this epistemology/ontology, he will review extant literature that does not have its foundation in Systems thinking. The Systems perspective is explained at length later in the review. The understanding of the interrelations and interdependencies between industry and community has become a contemporary strategic concern (Bowen et al., 2010). To explain the term engagement, one must refer to the literature. Among many other uses, the term engagement is used to mean "to induce, to participate" ("engage," n.d.). This definition describes behaviour and, while not definitive, is deemed by the researcher useful to this research. The literature is rife with differing definitions or models which are often implied rather than explicit. The act of engaging a community is often implied as some quality or strategy of communication or information sharing or dissemination process. This is in keeping with what one sees in the communication and information theories of Shannon (Shannon, 1948) as depicted in Figure 14.
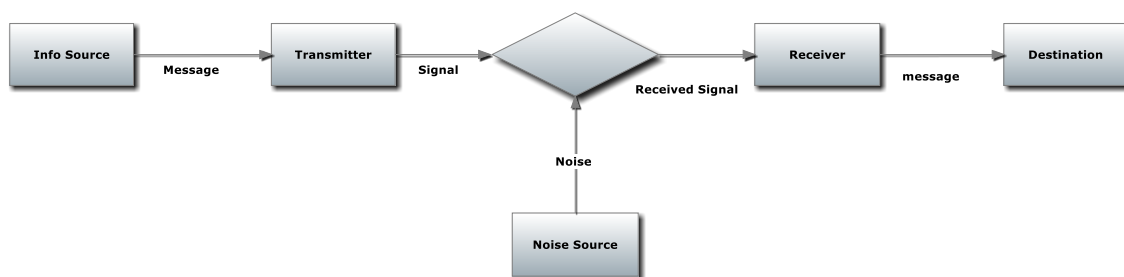
Figure 14 Shannon's Model of Communication as adapted from Shannon (1948)

Just as linear control is a specially limited version of circular control, linear communication (coding) is also a specially limited version of circular communication or

conversation. It may, in fact, be likened to a zero order cybernetic System of information transfer—linear and without a self-regulating feedback loop.

In the sense that engagement is a verb—an action—the literature suggests that engagement is behaviour and behaviour of differing qualities. The literature often depicts engagement as lying on a continuum (Abzug & Webb, 1999; Anderson et al., 2011; Baxter, Eyles, & Elliott, 1999; Bowen et al., 2008, 2010; Caputo, 2013; Dear, 1992; Dunham et al., 2006; Esteves & Barclay, 2011; Hardy & Phillips, 1998). To generalize the continuum, not identically to the literature, it ranges in level and quality of engagement that vary in degree of participation between entities—for example, industry and community. Like Bowen et al. (2008), for this section of the review, the researcher will look to the leadership and governance literature referring to community engagement and use the continuum of quality of induction to participate as that which ranges from "transactional" through "transitional" to "transformational."

2.3.1   *Transactional Behaviours of Engagement*

Engagement typified by the term "transactional" contains tactics of participation including a corporate stance of "giving back," one-way communication (from industry to community), a large number of community partners, occasional community interaction, limited trust development, a learning transfer from the corporation to the community only, business only control of the process of engagement, and distinct benefits and outcomes (Bowen et al., 2008). The literature suggests that information dissemination is a key aspect of successful community engagement (Adamson, 2010; Baxter et al., 1999; Connor, 1988; Esteves & Barclay, 2011). However, it is also suggested that transactional

information provision alone does not necessarily create empowerment (Adamson, 2010) and that this type of engagement behaviour is tantamount to a public relations maneuver that confuses an educational initiative with what turns out to be insincere support of community understanding (Heiman, 1990).

Evidence of this behaviour is cited when corporations seek positive publicity through sponsorship or, in more extreme cases, when organizations act in authoritarian ways based on some legislated and official interest of the community, placing the community in a position of reacting to a seemingly government-sanctioned proposal, as opposed to participating in conversation with planners (Farkas, 1999). It is often the case that legislation does not make mandatory any public participation in the initial phases of an organization planning a project that may affect communities profoundly— community engagement is not obligatory (Dütschke, 2011). Suffice to say that while this may provide an expedient course to the establishment of the initiative, the literature does not support its effectivity in opposition avoidance and neglecting public participation is more likely to become a direct route to opposition group formation.

Community engagement has a history of industry secretly establishing plans for projects such as landfills, prisons, mines, etc. and carrying on with their construction without any information being supplied to the community (Covello, Peters, Wojtecki, & Hyde, 2001; Dietz & Stern, 2008; Farkas, 1999; Gross, 2007; Hart & Sharma, 2004; Hermansson, 2007; Kang & Jang, 2013; Koehler & Koontz, 2008; Mannarini & Roccato, 2011; Post, 2012; Sandman, Miller, Johnson, & Weinstein, 1993). In light of the opposition that such behaviours created, a higher profile behaviour including education

and persuasion was developed. Unfortunately, this one-way coercive posture proved merely to alert the community and produced opposition earlier in the process—a strategy equally risky to the secretive one (Dear, 1992). A key downfall of the transactional approach is that, even in the event of a face to face meeting of community and industry, where the project is presented, and community members are allowed to comment, lack of constructive dialogue is a hallmark of these events (Hoxie, Berkebile, & Todd, 2012).

Views and information provided to a community are often seen as outsider views and as such as irrelevant, regardless of the sincerity of the presentation. Transactional engagement behaviours do not account for insiders (i.e. community members or those with the sense of community mentioned previously) to be involved in a meaningful way (Fiol & O'Connor, 2002). This type of behaviour is what the literature presents as the most basic type of engagement on the continuum and includes employee volunteering, philanthropic donations, pushing communication through education, and lobbying (Bowen et al., 2010). At its most extreme, this type of communication and behaviour may be likened to a kind of "guerrilla" public relations tactic (Dunham et al., 2006).

2.3.2   Transitional Behaviours of Engagement

Transitional behaviours of engagement are those that move beyond the one-way engagement behaviours of transactional behaviours but do not fully achieve the meaningful dialogue and sense making that occurs in transformational behaviours of engagement (Bowen et al., 2008). Transformational engagement is typified by learning, leadership, and empowerment and as such requires a deep exploration on behalf of the

researcher to determine whether transactional or transformational behaviour is being observed (Hardy & Phillips, 1998). Bowen et al. (2008) detail transitional engagement behaviour as behaviour that displays the corporate stance of building bridges, two-way communication, many community partners, repeated community interaction, an evolutionary nature of trust, learning transfer to the firm, corporate control over the process, and distinct benefits and outcomes from the process (p. 14).

Transitional behaviours are indicative of the shift toward an understanding by the firm that early communication, transparency of activity, and involvement of the community will produce improved results in community relations and acceptance of projects built in or near the community (Chia, 2011; Eltham, Harrison, & Allen, 2008). However, some cite that traditional methods of public involvement concerning decision-making do not work (Baxter et al., 1999; Hoxie et al., 2012). Pursuit of two-way dialogue does not ensure appropriate information exchange to allow either the industry organization to receive enough information to make changes in their strategy or the community to feel they have been heard.

Of interest to this review is the question of who should develop and implement the structure of the two-way communication. Anguelovski (2011) suggests that the process of community engagement start with industry and community co-creating the structure of the communication. This is of interest because the literature typifies transitional engagement behaviours as those which demonstrate two-way communication grouped with corporate control over the process of engagement (Bowen et al., 2008, 2010; Kolk & Lenfant, 2012; Newenham-Kahindi, 2010). Clearly

defining the number and set of participants in two-way communication and not the participation of a broader and co-created group of community participants may jeopardize the dialogue from the outset. This suggestion is in direct contrast to what Bowen et al. (2008) and Bowen et al. (2010) suggest as a necessity for the successful engagement of community—a small group of partners.

The information that is available in the transitional engagement cases is scrutinized in the literature as well. Dütschke (2011) suggests many shortcomings of transitional engagement information dissemination including ignorance of local language differences, use of highly technical language, irregular updates, and lackluster promotion of site tours.

The structure of engagement and quality of information flow both suggest the fragility of trust within the domain of the transitional engagement. Where trust within a transformational engagement is relational at the personal level, trust within the transitional engagement is cognitive and evolves based on repeated interactions (Bowen et al., 2008, 2010).

The combination of the important aspects of transitional engagement behaviour sets it apart and—according to the literature—places it in a middle position in relation to transformational and transactional engagement behaviours—superior in effectivity to transactional behaviours yet inferior to transformational behaviours (Bowen et al., 2008, 2010; Kolk & Lenfant, 2012; Newenham-Kahindi, 2010).

2.3.3   Transformational Behaviours of Engagement

The third type of engagement behaviour on the continuum derived from the literature is that of transformational engagement behaviour. This type of engagement behaviour is characterized by a corporate stance focused on changing society, two-way communication, few community partners, frequent interactions, a trust based on personal relationships, jointly generated learning, shared control over the process and joint benefits from outcomes (Bowen et al., 2008). In much of the literature, transformational engagement behaviours are touted as those with the highest probability of successful collaboration (Adamson, 2010; Chia, 2011; Cornelius & Wallace, 2011; Dunham et al., 2006; Eltham et al., 2008; Hart & Sharma, 2004) and yet they are the least well-researched types of engagement behaviours—due in part perhaps to the ease with which identification and measurement of transactional and transitional forms of behaviour can be pursued (Bowen et al., 2010).

Transformational engagement behaviours are those which are hallmarked by communication, dialogue and the stature of community created and promoted by the behaviours of the industry involved (Chia, 2011). The literature opens at this point to concepts of dialogue and deliberative democracy. Dialogue theories centre on forms of communication that encourage multiple viewpoints and facilitate the shift in one's viewpoint based on the understanding of the viewpoints of others. Use of the term "deliberative democracy" suggests that the power based on the more widely accepted form of democracy be stripped away and replaced with deliberation. Consensus through voting on perspectives is replaced with consensus sought through dialogue (Gray &

Stites, 2013). Involvement of the community to the extent of dialogue and deliberation suggests an environment that goes beyond community engagement toward community empowerment or that, at least, this form of community engagement produces community empowerment (Anderson et al., 2011). Empowerment, regardless, suggests that through dialogue, the community involvement produces influence in the process and thus the process provides empowerment (Adamson, 2010). Empowerment, of course, depends on the creation of a social space which encourages empathy between industry and community that encompasses culture, thought processes, value systems, and language differences (Hart & Sharma, 2004). It is interesting to note that transformational behaviours of engagement are those which most closely match the definition of engagement reviewed previously—to induce to participate.

The literature reveals at this point an embellishment of stakeholder theory. The embellishment expands the definition of a stakeholder from a person or group on which the firm relies to that of a person or group on which the firm relies and which is affected by the firm (Dunham et al., 2006). This produces an end result of interaction with influence from the community in question which, it is posited by the researcher and supported by the literature, is an improved method of engagement compared to the transactional and transitional behaviours.

Transformational engagement behaviour does, however, presuppose that the community is in a state where they will accept an environment of dialogue with industry. Grassroots activists, quite often associated with NIMBY and NIABY theories, are cited in the literature as being unwilling to negotiate, deeming this a sign of

weakness for their cause toward an overarching objective that they are not interested in supporting. Heiman (1990) suggests that social consensus through informed and rational participation is a doubtful outcome given the facts, figures, and tactics in the hands of grassroots community activists and that the most effective path to community engagement is through a systemic understanding of how the unregulated competitive market produces waste and yet is not particularly responsible or suited to manage it.

The NIMBY literature also suggests timing and sustained interaction as key to the success of consensus in siting situations. Farkas (1999) suggests that it is critical to acquire knowledge of the community power structures and key stakeholders and then building support with these key players as well as ensuring all members of the community are supportive—not just the community leaders.

It should be noted that relationship-building implied by transformational engagement behaviour requires a great deal of investment by the corporation (Hillman & Keim, 2001). Transcending the simple supply of information, as is the case in transactional engagement, requires both economic and temporal investment in trade for what is hoped to be an increase in the social capital gained through this interaction (Anderson et al., 2011). This engagement behaviour is designed to make the NIMBY phenomenon unnecessary through empowering the community with a feeling of control and a belonging to the process (Dorshimer, 1996).

The primary goal of transformational behaviour then is to provide a forum of trust and uninhibited communication through which learning, thinking, questioning, and

decision-making can occur, inevitably empowering the community. Participants in this type of engagement report a novel and strong sense of community (Hoxie et al., 2012).

On a final note regarding transformational engagement behaviours, Fiol and O'Connor (2002) comment that the transformational engagement strategy is most effectively approached as a co-evolutionary process where no particular member of the process is likely to be able to supply an ultimate solution. This approach precludes others' thoughts of disparate parties coming together and immediately producing ultimate solutions or ultimate problem definitions but rather that the parties work together on issues of ever larger scope that will provide ever increasingly successful results and thus build trust and attract allies.

2.3.4   A Systems View of Engagement: Conversation Theory

The preceding review of engagement aggregated the literature into three types of engagement: transactional, transitional, and transformational. This typology, it was suggested, placed the types of engagement on a continuum ranging from transactional through transitional to transformational. The criteria for each type included corporate stance, communication, number of community partners, frequency of interaction, nature of trust, learning, control over process, benefits, and outcomes, as detailed in Figure 15 below. There are many similarities in the Systems literature dealing with engagement and the types of engagement behaviours cited. Several Systems concepts and theories are logical extensions of and can be viewed as supporting or explaining much of the extant literature findings. The essence of Systems science is the study of holism within the "real world"—to view the world as interconnected and dynamic as

opposed to reducing it to its most minute parts for study and search of explanation. That said, there are many applicable theories and aspects within the Systems sciences literature that will help to explain the phenomenon of interest in this research. The review will touch on literature that is foundational to Systems thinking and Systems science and trace its development toward the understanding of community engagement.

Dimension	Three Types of Engagement Behaviors		
	Transactional Engagement	Transitional Engagement	Transformational Engagement
Corporate stance	"Giving Back" Community investment	"Building Bridges" Community involvement	"Changing Society" Community integration
Communication	One-way	Two-way	Two-way
Number of community Partners	Many	Many	Few
Frequency of interaction	Occasional	Repeated	Frequent
Nature of trust	Limited	Evolutionary	Relational
Learning	Transferred from Firm	Transferred to Firm	Jointly Generated
Control over process	Firm	Firm	Shared
Benefits and outcomes	Distinct	Distinct	Joint

Figure 15 Types of Engagement Behaviours as adapted from Bowen, et al. (2008)

Conversation theory and its roots in cybernetics and specifically second order cybernetics provide the observer with many explanations and skeletal bones on which to hang or explain the engagement behaviour types and outcomes in the extant literature. This should not be surprising, as the basis of Systems science is a skeleton on

which other theories may be hung (Boulding et al., 2004). Systems science involves identifying those transdisciplinary and in this case those trans-perspective theories and observations that constitute the contemporary view of the subject. Systems thinking is concerned with similarity and overarching commonalities between perspectives and languages of disciplines. Therefore, illustrating similarities with System science models and the phenomenon described in the contemporary literature concerning community engagement is not a great intellectual stride.

2.3.4.1 Systems View and Transactional Behaviour

The researcher begins the Systems exploration of engagement with the first category found in the literature—transactional engagement behaviour. Within the parameters of this type of engagement behaviour, we see some very striking similarities in cybernetic model types. One-way communication, for example as in the case of information and communication theory (Shannon, 1948) (Figure 13), is easily modelled as a zero order linear System of communication. There is no regulation available, no feedback loop and no apparent System goal. Information is delivered by the firm to the community, and this is where the System dynamic ends. Interaction frequency is limited and at the discretion of the firm. This tracks to some extent the "it-referenced" System that Pask illustrates in conversation theory—a special and limited form of the cybernetic System (Pask, 1981b); however, it does not include any formal feedback loop and thus must be consider non-intelligent. Here the industry System interacts with the community System as an "it"—the community has no means through which to dispute the input signal from the industry System. There is no output channel for the firm to

monitor what is happening in the "environment" that it is pushing the information to.

The community System has no choice whether or not it wants to receive the information

and no way of communicating back whether or not it agrees, understands or wishes to

modify the concepts being pushed their way. This is similar to Pangaro's (1989) model of

"it-referenced" vertically structured conversation—similar to that found within a firm—

and yet can likely be found to exhibit pathologies due to flawed structural aspects of the

model (Figure 16).
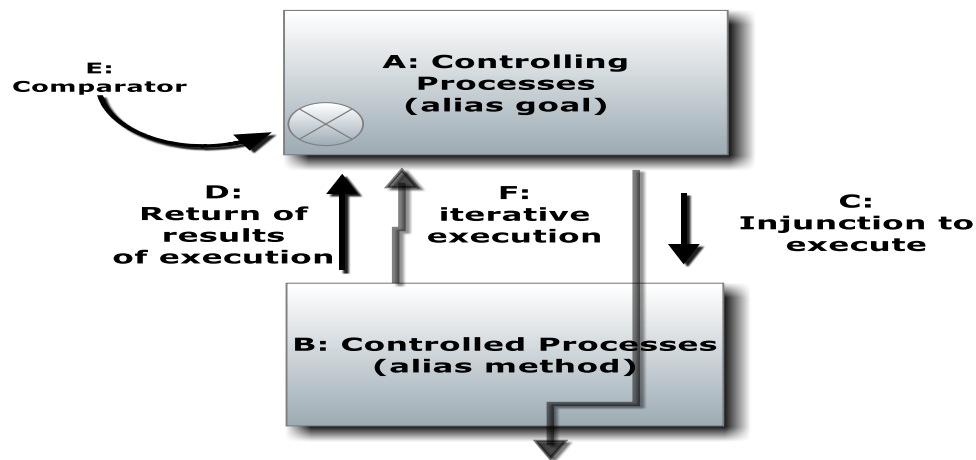
Figure 16 Vertical Conversation—It-referenced as adapted from Pangaro (1989)

Figure 16 illustrates the It-referenced model. The interactions at play are those

which it may resemble when "upper management" controls the processes in

manufacturing. Here the "goal" is set by A the controlling process and is carried out by B

the controlled process. C the injunction to execute is the actual channel of goal

transmittal: newspaper, door to door flyer, memorandum or meeting, etc. D is the

feedback from the controlled process to the controller, and E is the controlling process

comparing the results of the controlled to the goal determined. In this model, F

represents an iteration (not repetition) of the process in a direction presumably that seeks the goal (Pangaro, 1989, 2007).

As mentioned, Figure 16 is the model. The model is susceptible to pathologies when a great many aspects of the model are not executed. Of greatest interest to this research review is that of the one-way communication set up in transactional engagement behaviour. What this amounts to is the lack of return of information in step D to the controlling process. This does not allow for the controlling process to determine whether or not the goal is being achieved and makes the iterative process of F impossible or moot. Using the conversation theory model provides at least theoretical insight into why this type of engagement may not be effective. With no channel for feedback from the controlled process, the System in question most resembles the open linear System (0-0) which appears to have no goal and no regulation of the process. Information is pushed to the "It" of community without regard to the effect that the information received is having on the process that is desired to be controlled. This is a cause for pathology in the theoretical System at very least – pathology of conversation.

It is possible of course that given the particular structure and nature of the Systems modelled in this review that the lack of feedback in this situation positions industry as an environmental perturbation which is "seen" by the second order System of community as an environmental input or disturbance. This is illustrated in Figure 6. Without the feedback channel to the controlling System, the second order industry System becomes like noise or a first order perturbation in the environment and as such is compensated for by both the first order goal seeking and second order goal seeking

loops within the System community. From this perspective, the highest order that can be expected to be achieved is a 0-2 System and as such cannot have the same outcome or desired control capability as intended. At worst/best the System resembles a 0-0 combination, which may or may not produce the desired control effect and has no inherent means of determining regulating action.

2.3.4.2 Control, Requisite Variety and Conversation Theory

While the researcher will discuss the Systems relations to the remaining parameters in due course in the review, it is thought pertinent to detail some of the Systems aspects of the parameter of "control." This parameter has been derived from the literature and is at the basis of cybernetics and Systems thinking. Within this domain, the term has a much broader connotation than what might be thought of as a more normative definition in the social sciences domain. Here we see that the control of the interaction—the engagement - is deemed within the transactional engagement behaviour to be owned by the industry System. This brings the researcher to suggest a detailing of what is implied by the term control—both in the extant literature and in the domain of cybernetics and Systems thinking/Systems science.

One of the forefathers of cybernetics W. Ross Ashby produced several treatises that laid claim to a Systems law which he coined "The law of requisite variety" (Ashby, 1957, 1958). The law explains that a controlling System must be capable of a sufficiently large variety of actions to ensure a sufficiently small variety of outcomes from the System to be controlled. The implication for those who design Systems is to incorporate within the controlling System the maximum variety of actions to deal with the vast

number of perturbations possible in the System to be controlled (Heylighen & Joslyn, 2001). In the case of community engagement and the conversation theory model at hand, the vastness of what could be the System of community and the longitudinal dynamic nature of the concept of community do not lend well to devising a System that can "control" it. The limiting nature of the law of requisite variety, in the case of community engagement, makes the design of a System to control community impractical at best. Two options arise: 1) to limit the variety of perturbations—the complexity—available in the controlled System through force—similar to those controlled in dictatorships, or 2) to design a System that by means of its structure naturally equalizes the variety necessary (Glanville, 2001). The controller is the controlled and the controlled is the controller in a cycle of recursion through one participant and then the other (Pangaro, 2011b). Cybernetic control is the control of regulation not of restriction. This type of control does not attempt to exclude the various forms that the System might take, rather it looks to alter the likelihood of the System taking them (Glanville, 2001).

To produce a System of "control" that is at least equal in variety of action to that of a controlled System's vast perturbations is only feasible if one can accept the inevitable unmanageability of the situation. To match the variety of the unmanageable System, in this case community, one must approach a social equalizing mechanism such as the model of conversation suggested by conversation theory (see Figure 9).

This opportunity does not come without cost, though. To relinquish control in the face of an unachievable ability to provide a controlling System with the requisite

variety, one must embrace novelty through conversation (Glanville, 2001). The recursive action of conversation between two Systems of language implies novelty, as the researcher has illustrated previously (Figures 9-12). The very nature of the conversation theory model implies that concepts are dynamic and that novelty is the primacy of the theory. The relinquishment of "control" in this case comes with the reward of the development of a System that requires no overt design for incorporation of requisite variety. It is a System comprised of the combination of two learning and conversing Systems, each with autonomy and involved in a negotiation of a concept—on equal terms. Neither of the Systems is compelled to accept the information of the other and only, grouped with trust, will each arrive at an iterative and collectively agreed upon novel concept. The phenomenon or structure that is desirable in this situation with this strategy is a circular control of the situation—where controlled and controller are one and the same (Figure 16). Thus, because naming the controller and the controlled is merely a matter of convention—the circular causality of the model renders the controlled and controller as equal and non-locatable except through convention—the law of requisite variety leads us to conclude that the variety in one System equals the variety in the other (Glanville, 2001).
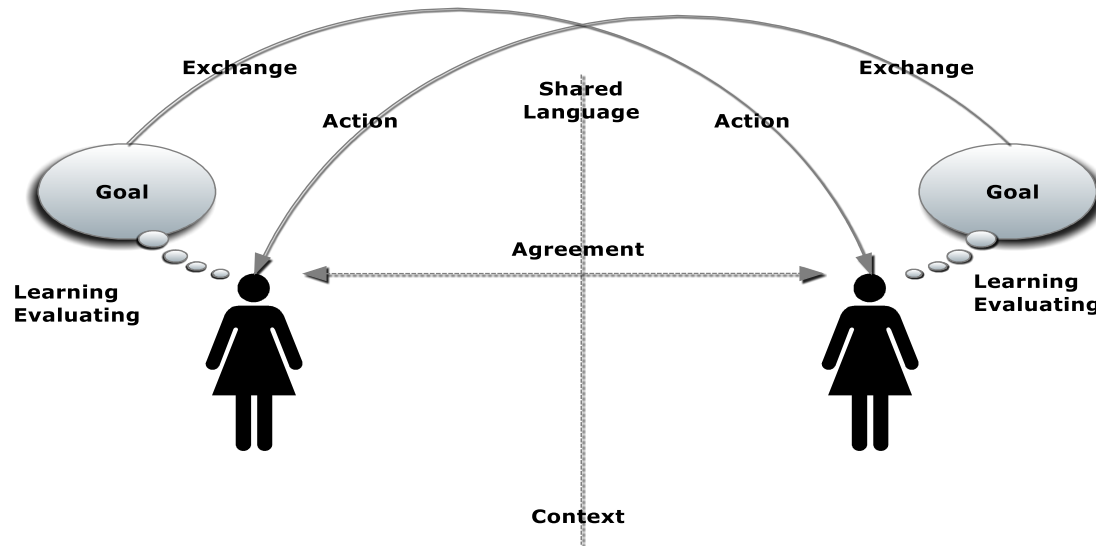
Figure 17 Generalized Conversation Theory Model as adapted from Pangaro (2014)

2.3.4.3 Systems View and Transitional Behaviour

The conversation theory model depicted in Figure 17 illustrates a model that alternates between parties the controlled and the controller in a stepwise manner. This allows for the balance of requisite variety and as such is an intelligent system working across a context toward agreement. As discussed previously transitional behaviour demonstrates some of the aspects and characteristics of this model but falls short in how well the controlled / controller balance is maintained. Transitional behaviour is typified by corporate control over the engagement of the community and not by the co-creation of the safe domain of interaction. As such, transitional behaviour does not match the conversation theory model. The lack of dialogue and the lack of control balance suggest pathology.

Also, of note is the lack of attention to the establishment of a common or "local" language by those organizations that demonstrate transitional behaviour. This aspect is an integral and essential part of a successful conversation theory model. The failure to establish a common language or to use overly technical terms etc. is suggestive also of pathology.

2.3.4.4 Systems View and Transformational Behaviour

One can identify striking similarities in this model and the descriptions from the literature that are typified as transformational behaviours of engagement. The conversation theory model equalizes through its structure the requirement for designers of the System of engagement to be concerned with the law of requisite variety and all its possible ramifications. While not naming it as such, the empirically derived literature supports the formalized theory of conversation.

The conversation theory model resembles the transformational behaviour of engagement in many ways. The characteristic of circular causality sets up an open channel of conversation and concept negotiation. The literature refers to transformational behaviours of engagement as those which possess the characteristics of participation, dialogue, deliberative democracy, consensus, and community empowerment. The researcher has discussed the inherent characteristics of the conversation theory model to the extent that the reader can observe the similarities with the transformational engagement behaviour. Figure 18 summarizes the similarities between the two. There are, of course, other aspects of the different engagement behaviours that can be expounded through contrast and comparison with the principles

of conversation theory—most of which resemble lower order systems forms and pathologies created through deviation from conversation theory models.

There are two additional parameters that the researcher would like to contrast and detail in the discussion regarding the engagement behaviours and conversation theory: the nature of trust and learning. Trust is paramount to successful conversation and conversation is a means through which trust can be built (Pangaro, 2011a). Trust is the antidote to fear (Glanville, 2001) and, thus, is a catalyst to the open and creative exchange and negotiation of concepts. As mentioned previously, transactional engagement behaviour is typified in the literature to be limited in its nature of trust development. This is not surprising, given the communication method and the linear zero order nature of communication that typifies this engagement behaviour. The researcher posits that the type of trust that typifies transformational engagement behaviour—relational—is trust that is propagated through the virtuous circle of conversation. Pangaro (2011a) describes the virtuous circle of conversation and trust as conversation that leads to trust that opens up a safe space in which to explore new ideas and insights. The iteration between the successful participants through conversation sets up an amplifying or positive feedback loop that can lead to many positive outcomes. If there is no route for conversation to occur then it is no small wonder that trust is limited in transactional engagement. A similar cycling is necessary for learning to take place during engagement.

	Comparison of Transformational Engagement Behaviors and Conversation Theory	
	Transformational Engagement Behaviors	Conversation Theory (CT)
	Discourse	By definition CT embraces discourse and concept novelty from discourse
	Consensus	The nature of Conversation Theory is for two language based systems to arrive at a novel concept through conversation
	Community Empowerment	The Law of Requisite Variety is satisfied and the controlled become the controller through Circular Causality
	Participation	By definition Community and Industry must participate if a conversation is to take place
	Deliberative Democracy	Equally grounded conversation is the essence of Deliberation - Consensus through Deliberation

Figure 18 Comparison of Transformational Engagement Behaviours and Conversation Theory

As mentioned previously, within the typology of cybernetic Systems and their combinations lie the schematics for the learning System (Figure 6). This System is a second-order cybernetic System that has the ability to not only self-regulate to a first goal but also to regulate to a second goal or a goal to change the first goal based on the results received through feedback from the environment equivalent to the feedback received by the first order System. Learning is at the basis of cybernetics and as such is also at the basis of conversation theory (Pask, 1975, 1976; Pask et al., 1973). Many who are involved in teaching use conversation theory when devising methodology for teaching as well (Boyd, 2004; Ogborn & Johnson, 1984; Pask, 1980). While teaching is not learning, it is certainly associated with the action.

Two second-order learning Systems combined in a conversation configuration define the model of a learning System that benefits from the interaction of conversation. This configuration is the basis of conversation theory and is the formalized

form. Here it is suggested that learning, trust, power balance, participation, dialogue, deliberation, and mutually beneficial outcomes reside.

2.4   Opposition

Figure 19 Local Ingersoll Community Placed Sign

As mentioned previously, the impetus for this research is to provide insight into the cause(s) of the formation of opposition groups within the community—i.e. why do community opposition groups manifest? It would be remiss then to not touch on what the literature has to offer on this subject. As one may surmise, the literature is more concentrated on the description of engagement behaviours somewhat after the event. These analyses, while valid and insightful, do not lend themselves to a great demonstration of the precedent or causal conditions of opposition formation but rather tend toward the explanation of how to deal with the groups after they have become organized (King, 2007). In addition, much of the literature that describes the engagement behaviours does not necessarily relate the antecedents to causation, only stating that these conditions occurred and typify the different engagement behaviours

and that some are more often linked to successful engagement than others. What follows is an exploration of three popular theories of community opposition formation and the underlying psychological, sociological, and Systemic forces contained within them.

2.4.1 NIMBY

Opposition within the community will adversely affect the critical path of projects and scuttle others (Connor, 1988). In the literature, one of the most common theories used to explain the reasoning behind community opposition is the Not In My Back Yard (NIMBY) theory. Definitions for the NIMBY theory are numerous (Gakuin & Tanaka, 2004; Halstead, Whitcomb, & Hamilton, 1999; Kraft & Clary, 2014; Steelman & Carmin, 1998; Wolsink, 2006). The NIMBY theory can be described as protectionist attitudes and opposition tactics demonstrated by community members confronted with the proposition of a development in their neighborhood (Caputo, 2013; Cavatassi & Atkinson, 2003; Eltham et al., 2008; Farkas, 1999). Of interest regarding this theory is that it does not have its roots in academia and rather has loose seminal sources in journalism or industry. The early printed source is a claim that the term is used by those in the industry and that it is a dichotomous selfish reaction of most Americans who wish to have disposable commodities but do not want to have to deal with the effluent remaining after their production (Travel Livezey, 1980). One of the underpinning aspects of the logic is that community opposition diminishes as one travels further from the siting of the development (Cavatassi & Atkinson, 2003). Also, the theory holds that

individuals act primarily in a selfish or self-serving manner protecting what is their immediate environment through parochial, irrational, and selfish behaviours while suggesting that development occur elsewhere (Steelman & Carmin, 1998).

The concept and theory of NIMBY has many proponents and is supported by empirical research (Cavatassi & Atkinson, 2003; Dear, 1992; Hermansson, 2007). In Italy, for example, there is an entire research group, The NIMBY Forum ("Nimby Forum," n.d.), which cites 203 conflicts in 2011 up to 336 in 2014 with a high of 354 in 2012. 68.7% of these conflicts were opposition to electrical generation projects and 28.3% were opposition to landfill sites (Mannarini, Roccato, & Russo, 2015). The term is not only used in the industry and by academics but is frequently used in the vernacular and generally in a negative context. Its popularity has promoted the following dictionary definition:

A person who objects to the siting of something perceived as unpleasant

or hazardous in their own neighborhood, especially while raising no such

objections to similar developments elsewhere ("Nimby," n.d.)

Many researchers have chronicled others as explaining NIMBYism as a form of undemocratic freeloading and as a danger to the democratic process based on misinformation, parochialism, selfishness, and ignorance (Botetzagias, Malesios, Kolokotroni, & Moysiadis, 2013; Dear, 1992; Hermansson, 2007; McClymont & O'Hare, 2008).

Further, NIMBY theory has had to endure some criticism in the literature. Eltham et al. (2008) cite several additional factors that contribute to opposition including

communication and consultation methods used, distrust of a developer's motives and other social and institutional factors. This broader understanding of motivation is cited by Steelman and Carmin (1998) as being composed of social context, cultural norms, and collective concerns as opposed to a strictly selfish rational choice framework previously accepted as the dominant paradigm. NIMBY may also be intertwined with issues of fairness, equity, and lack of trust in political bodies, industry, and science in general (Botetzagias & Karamichas, 2009). Hermansson (2007), among others, comments as to the ethic underpinning the NIMBY theory. There is certainly an ethical dilemma as to whether or not a small number of citizens should bear the brunt of the negative externalities and risk of many generators. In the case of the landfill site, we see the generation of waste by all and yet the acceptance of the risk and negative externalities as harbored by a few—can this be considered as selfish or a question of an unequal sacrifice of a few for the benefit of the many? Also, can any individual or group in a free market system be seen as irrational when they take action which is based in their self-interest? A claim such as this implies that a local issue is somehow less important than more broad concerns (Burningham, 2000).

With regard to the obstruction of democracy, many authors have addressed this claim and see it as a benefit and substantiation of democracy as opposed to an obstruction (Burningham, 2000; Lake, 1993; McClymont & O'Hare, 2008; Schively, 2007; Wolsink, 2006). The argument put forth is that the democratic process is enriched by public participation and that opposition to siting is a manifestation of a better democratic process or an indication of a need for change to the current democratic

process surrounding the siting of LULUs. While this is a good point, it is more a criticism of the negative connotation of the theory as opposed to the actual phenomenon as the impetus for opposition.

Critics of the theory also maintain that the term is one that is used in a pejorative manner to manipulate and dispel public opposition. Those who pursue a siting with a DAD (decide—announce—defend) (Mannarini & Roccato, 2011) strategy are also most likely to make use of the term immediately during the defense of the siting (Hermansson, 2007; McClymont & O'Hare, 2008; Wolsink, 2006). The negative connotation that is generally associated with NIMBY theory is a useful media tool to dispel opposition. In this sense, those who do oppose LULUs will avoid its use or qualify its use by acknowledging their proximity to the siting as strength of local expertise while proclaiming a true concern for the environment overall. The concept of not in anyone's back yard (NIABY) will be explored later in this paper.

This said, those individuals housed closer to the developments are likely to bear a larger cost in terms of increased traffic, noise, air pollution, real and perceived risk, etc. than those living further away (Halstead et al., 1999). Therefore, it is not an intellectual stretch to accept the possibility that NIMBY is in whole, or part, a motivation for community opposition. After all, the popularity of the theory is demonstrated by the number of associated contemporary acronyms that have surfaced such as NOOS (not on our street), LULU (locally unwanted land use), NOPE (not on planet earth), NIMTOO (not in my term of office) and CAVE (citizens against virtually everything) (Dear, 1992).

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

2.4.2   NIABY

To be fair, the acronym NOPE is more closely related to grass roots opposition and activism. The theory encompassing these social movements is one labelled NIABY standing for Not In Anyone's Back Yard (Heiman, 1990). NIABYism is suggested to entail a more socially responsible and holistic motivation than that of the selfish-based NIMBY. Proponents of NIABY theory suggest that activists who enter into negotiation have already weakened their stance and ability to influence the situation based on their beliefs that sitting down with a corporation is being invited to "speak their language"(Heiman, 1990). Where NIMBYists are thought to understand the need for LULUs—just not want them in their neighborhoods NIABYists are thought to be intolerant of any industry or government plan to manage waste other than to deal with it at its source.

NIABY theory also begins to explain the phenomenon of those who oppose LULU siting's when they are not in their backyard. The question then becomes; does the NIMBY case evolve into a NIABY case or is the NIMBY case merely a misapplied concentration on geography when the societal disapproval of such land use is really at the heart of the opposition? NIABY theorists suggest that the greater community concept of LULUs serving the greater good (just not here) held by NIMBY theorists is not the common concept. NIABY theorists suggest that the community concept of LULUs is that they are toxic and should be managed at the source and not in the community— reduction, recycling, and remediating of toxics (Heiman, 1990).

In this sense, the NIABY theory is much more multifaceted and is underpinned by the recently developed notion of reflexive modernization. This theory opens the central theme of the "risk society" and with it the interplay of the constructs of trust, equity, and participation and their influence on community behaviour (Balžekien, Rinkevi, & Einstein, 2002).

2.4.2.1 <u>Reflexive Modernization</u>

The notions of equity, participation, and trust and their relation to NIABY theory is revelatory of the theory being closely related or underpinned by the notion of reflexive modernization (Botetzagias & Karamichas, 2009). This theory is a prominent social theory brought forth by Giddens (2013) and Beck, Bonss, and Lau (2003) and concentrates on a pre-postmodernist (second modernism) view. Of note to the topic at hand is the prominence that this theory places on a societal concentration toward trust, equity, participation, and risk. The underpinning notion is that activism and NIABYism are movements based in reflexive modernization and as such have their primacy based in the values that relate—trust, equity, participation and risk (or risk aversion). Researchers have noted in cases of opposition the lack of trust in science (Dütschke, 2011), and a compulsion for equity and risk aversion (Hayibor, 2008; Steelman & Carmin, 1998). The lack of trust does not end with science alone and stretches to other institutions including government and industry (Eltham et al., 2008). This represents a swing in community trust from those institutions that during the premodern industrial period were trusted and presents a wrinkle in the interactions between community and the institutions of science, government, and industry (Botetzagias & Karamichas, 2009).

The theory of reflexive modernization expands upon the loss of trust by communities as being a function of the extrinsic nature of past risks—an infliction from "without" the community exposed to the risk. This implies a lack of deliberation and loss of control on behalf of the community brought about by a post-industrial domain composed of ecological, chemical, economic, nuclear, and genetic dangers (Stankiewicz, 2008). Perhaps not surprisingly, the fear of technological advancements is held as a predominant concern of the citizens of most Western industrialized nations (Renn, 1992). When disaggregated further, the literature regarding reflexive modernization suggests that there is an intimate interplay between the concepts of equity, trust, participation, and risk. This component of the theory can be viewed in general as a social constructivist perspective to be held in direct contrast to a realist perspective that involves the technical, scientific, and cognitive sciences views. This bifurcation doesn't suggest two opposing theories but rather suggests two complimentary perspectives that should be considered in the approach to community engagement and opposition situations (Balžekien et al., 2002). The researcher will explore further the interplay and relation of trust, equity, and participation next.

2.4.2.1.1   *Trust*

As discussed previously, the impetus for this review was to determine the previous literature on why opposition groups form. The concept of trust is introduced here as a component of reflexive modernization and yet has been briefly mentioned throughout this review and is a strong component of conversation theory.   The literature concerning the concept of trust is vast and as such will not be explored to its

full extent here. It will have to suffice that the coverage will include the most important aspects of the concept in order to converse intelligently regarding this concept within the domain of community engagement. Unfortunately, trust is rarely well defined. One finds many definitions in the literature generally dealing with an exchange between humans, based on certain expectations of truth and a reliance upon an understanding of consequential behaviours toward each of the parties included in the interchange, as well as a degree of reliability shared between the parties. For the purposes of this review, the researcher suggests the following Kasperson, Golding, and Tuler (1992) definition citing Rotter (1980) that trust is "a generalized expectancy held by an individual that the word, promise, oral or written statement of another individual or group can be relied on" (p. 1). Unfortunately, mistrust can arise when there is a breakdown of an interaction between an individual and another individual or group, that results in incompetent, uncaring, and unpredictable behaviour, or the expectation of this result even before the interchange has taken place (Kasperson et al., 1992).

Given these definitions, it is not surprising that much of the literature alludes to trust being a social and psychological construct requiring a cognitive leap of faith (Baxter et al., 1999; Kasperson et al., 1992; Pangaro, 2011a; Rowley & Moldoveanu, 2003). The literature also details that once this leap of faith is breached it manifests in the feelings within the community of lack of control and generally leads to opposition (Baxter et al., 1999; Glanville, 2001; Hallman & Wandersman, 1992; Renn, 2014; Sjöberg & Drottz-Sjöberg, 2001). Once this faith has been breached, whether or not community opposition manifests, it is also commonly understood that gaining back trust is very

difficult if not impossible and requires that the trusting party continue to trust after being abused (Baxter et al., 1999; Glanville, 2001; Kasperson, 2014; Keeney & von Winterfeldt, 1986; Whitfield, Rosa, Dan, & Dietz, 2009).

The importance of the establishment and maintenance of trust is the suggestion within the literature that trust is a prerequisite for and in some cases a seeming predictor of successful siting engagements (Cavatassi & Atkinson, 2003; Chia, 2011; Connor, 1988; Gakuin & Tanaka, 2004; Kasperson et al., 1992; Renn, 2014; Rosa et al., 2010; Sandman et al., 1993). It stands to reason that if a community feels threatened it will react. As cited previously, Glanville (2001) suggests trust is the antidote for fear and therefore it stands to reason that without trust a community will react in a manner that is in opposition to those who are perceived to be causing the fear.

Renn (2014) suggests that four factors are critical to establish and maintain trust in siting situations involving risk: acknowledgment of the risk by all parties, emotional identification, assurance of self-efficacy, and the benefit to the individuals or community involved. Others cite similar characteristics of the trusting relationship between parties and the community as those which are composed of caring and empathy, dedication and commitment, competence and expertise, and honesty and openness (Covello et al., 2001). Kasperson et al. (1992) cite the components of trust as predictability, caring, competence, and commitment and view community opposition and resistance as crises of the social trust.

There is much agreement that trust and participation are closely linked and that participation of a nature that empowers and allows for an equal negotiation of the issue

at hand is most effective in developing trust (Baxter et al., 1999; Dietz, 2013; Gray & Stites, 2013; Kasperson, 2014; Kasperson et al., 1992; O. Renn, 2014; Rosa et al., 2010). Peters, Covello, and McCallum (1997) suggest through empirical study that trust in industry can be raised through an increase in perception of concern and care, trust in government can be raised through an increase in perception of commitment, and that trust in citizen groups can be raised through an increased perception of knowledge and expertise.

2.4.2.1.2   *Mistrust*

If trust can be relied on to an extent as a predictor of satisfactory community engagement then certainly it is not a stretch to propose that mistrust is a predictor of opposition. The literature supports this supposition and suggests that mistrust in institutions has grown at a similar rate to the mistrust of the industries that those institutions are in charge of regulating—the nuclear industry and the nuclear regulatory agency in the U.S.A. for example (Renn, 2014). It appears that in conjunction with a general mistrust of institutions, government, science, and industry (Fischhoff, 1995) communities have several triggers for mistrust. Among these triggers are secrecy and silence (Farkas, 1999), perceptions of bias or of injustice (McComas, 2014), lack of adequate participation or the perception of institutional inactivity (Stone & Levine, 1985), ineffective listening and dialogue, unwillingness to acknowledge risk and disclose information, and irresponsibility or negligence in fulfilling responsibilities (Covello et al., 2001).

Of interest is the argument of whether trust is of a personal or social nature. The previous section, which narrowly defines the NIMBY attitude as being based on selfishness and ignorance, tends toward the personal attitude as a driver of opposition where trust and subsequently mistrust have been viewed as both a personal and public or social construct (Cavatassi & Atkinson, 2003). This is certainly in keeping with a theory that considers concepts to be emergent from the negotiation between a minimum of two individuals arriving at an agreement regarding that concept—conversation theory. Kasperson et al. (1992) allude to Renn and Levine (1991) as identifying a stratified structure of trust and confidence that vary in level of complexity and abstraction. They cite these as a message, personal appeal, institutional perception, institutional climate, and socio-political climate. The most interesting aspect of this classification is that they have empirical evidence that would suggest that strong mistrust at the lower less complex levels seems to influence the higher more complex levels and vice versa. This suggests a similar relation to the Systems view of community and the concept negotiation of conversation theory. Therefore, trust and mistrust may reside at a personal and also in a societal domain simultaneously both with the potential to influence each other.

2.4.2.1.3   *Equity*

A second important aspect of reflexive modernization is that of equity. Equity theory is one of the most widely developed theories of motivation and has been widely used throughout the literature (Hayibor, 2008). Simply stated, equity theory deals with the concept of discontent produced from the perception of individuals or a community

not having their needs met in the course of others having theirs met. It holds a sense of fair play and has certain ethical considerations as well. The risk communication and analysis literature cite equity as a serious component in community engagement of this sort as early as 1987 (Plough & Krimsky, 1987).

Baxter et al. (1999) disaggregate equity into a typology of environmental, social, special, and procedural equity and discuss the interplay of these different kinds of equity perceptions with one another and with participation and trust. For example, they investigate a failed siting case where the concentration of government on interregional (spatial) equity was in direct opposition to the community concentration on the adequate consideration of alternatives (procedural equity) and intraregional equity (spatial) concerns of municipalities taking turns at harboring unwanted facilities. These authors also allude to the interplay of inequity and trust. A perception of inequity, they claim, from the outset of some cases is contributory to the development of mistrust.

Equity, it is claimed, may also be linked to an amplification of risk involved in the siting of LULUs. Sandman et al. (1993) suggest that the perception of inequity is the impetus for public reaction rather than the seriousness of the risk involved as laid out by science. Connor (1988) cites perceived inequity as one of the main sources of public concern in siting situations. There is, however, an underpinning assumption to equity as an impetus for action: the community has the economic, population density, and technological savvy and assistance to oppose that which is viewed as inequitable. Heiman (1996) cites several researchers who use the term "environmental racism" for those situations in which, because of lack of resources, some communities are accepting

of LULUs while others are forced to accept them because of their lack of might against government and industry. The marginalization may even stem to the exclusion of certain stakeholders through industry or government selection of those who will be considered stakeholders. Coronado and Fallon (2010) suggest that the lack of specific stakeholder identification can lead to the corporation seemingly addressing the concerns of the community in question while systematically excluding those who may bear the brunt of the risk in question—giving with one hand while taking with the other. This is in keeping with the suggestions by Hermansson (2007) citing Rabe (1991) that governments quite often favour areas for siting LULUs that pose the least political resistance.

The NIABY movement is likely to be more closely associated with the type of inequality that is described as intergenerational equity—expressed on behalf of future generations and the consequentialist notion of behaving in a manner that does not compromise the ability of future generations to thrive (Steelman & Carmin, 1998). This is a mainstay of the sustainability movement and yet because of the potential for marginalization, especially with global problems, equity can be seen as one of the key criticisms of the sustainability movement today (Gray & Stites, 2013).

Certainly of import to the subject of equity when considering siting situations are ethical considerations. It is obvious to most that in the case of landfill sites and most LULU sites that it is the burden of a few who are serving the many (Connor, 1988). While in most cases there is some distributive equity in the form of compensation for the increased risk or decrease in the standard of living brought about by the LULU, it does not stand that that is a particularly ethical conclusion. The argument that follows with

distributive equity is that there is a cost-benefit analysis that may be carried out and simply arrived at. According to Hermansson (2007) though, this doesn't consider the individual as happens in the medical field. With LULUs one sees that the outcome of a small amount of good far outweighs a terrific cost to an individual or very small group. The argument follows that the collective cost-benefit is set aside in favour of an individual cost-benefit where it is not acceptable to sacrifice the individual for the good of many. In this sense, the individual maintains her right to her own safety, body, property, and to not be treated unfairly.

Given the intricacy of equity and inequity, as it relates to siting and to reflexive modernization, it is important to understand that equity does not stand alone as the sole impetus for community opposition but rather is involved in the interplay of trust, space, and participation (Cavatassi & Atkinson, 2003). Baxter et al. (1999) review the interplay and suggest that in some cases the outcome of the combination of these components is not always positive. While, if from the outset participation, equity and trust are nurtured, acknowledged, and relentlessly pursued, it is possible that in misinterpreting the dissemination of information as participation, for example, the firm may invoke a response from the community in which trust will be lost, and several areas of equity will be breached—bringing forth an exacerbated community opposition in place of a successful siting. This observation is in keeping with a structural deviation of conversation theory and as such would imply pathology of misunderstanding as demonstrated by the formalized conversation theory model. In other cases, types of equity themselves may conflict—distributive equity not being effective in cases where

procedural equity (control and mitigation, prevention and participation) had not been first addressed. This aspect is once again reflective of conversation theory, which will be explored further in the review.

2.4.2.1.4   *Participation*

As has been mentioned previously, the literature refers to participation as an important and integral part of not only reflexive modernization but of its role in the successful siting of LULUs including the communication of risk. Of particular note regarding participation is that it must be of a quality that is two-way, dialogue based, and possessing a neutral power interchange (Schively, 2007). This strikes one as very similar to Glanville's (2001) explanation of the power of conversation and how trust is built through true conversation heading in the direction of resolution and convergence upon agreement. Plough and Krimsky (1987) detail effective participation as that which is the initiation of the understanding of the cultural context or cultural rationality of the situation and stress that this detail must be understood to effectively communicate. Key to the interaction and likely most probably achieved through conversation is the need to empower the community to the extent where a power of veto or rejection is a possibility—agreeing to disagree (Schively, 2007).

While the importance of participation is stressed throughout the literature, it is also delivered with some very important caveats. If not done correctly, participation for obvious reasons may marginalize (Gray & Stites, 2013). Care must be taken to approach the community not as a monolithic entity but rather as an aggregate of many parts—the community is composed of a number of communities. Communities, it is suggested, may

also see participation as an end in itself by treating the participation exercise as a negotiation of power and structures within the community and a decision process of risk allocation when discussing the siting and events surrounding the situation (Kasperson et al., 1992). Thus, participation not approached correctly may be the impetus for the coalescence of individuals into opposition groups (Chakraborty, 2012). Baxter et al. (1999) suggest that in some instances communities use participation as a means to opposition strategy and sabotage of the siting procedures.

Given the preceding caveats, it is important to understand that throughout the extant literature, participation in general is essential to successful siting procedures and processes (Bruine de Bruin & Bostrom, 2013; Chipuer & Pretty, 1999; Howarth & Wilson, 2006; King, 2007; Newenham-Kahindi, 2010; Prno & Slocombe, 2013; Sandman et al., 1993; Walton & Rivers, 2011). Empirical evidence supports that participants from the community in question prefer participation as a means to a successful siting procedure (Gross, 2007). Participation, equity, and trust are paramount vehicles for successful siting procedures, at least in keeping with reflexive modernization thought and the radical NIABY theory of community engagement/opposition.

2.4.3   A Systems View of Opposition: Pathologies of Conversation

The researcher has illustrated that there is an understanding within the literature that the "why" of community opposition manifestation is of a sociological nature influenced by proximity and selfish NIMBY behaviour or perhaps by a desire to pursue a greater need for equity, trust, participation and risk aversion through NIABY

behaviours. The researcher posits that these explanations/theories/models of phenomenon might well have their root in information availability (Eltham et al., 2008). Glanville (2001) suggests the impetus of collective opposition may be the desire for human beings to control when they should be interested in building trust. Geoghegan and Pangaro (2009) evaluate the biological cost of having to change a belief system in the sense of learning a new language—that is, changing a concept of community within the community is a rather large relational undertaking and must be managed with great forethought. They suggest that it is much less "expensive" in terms of time, energy, stress, and attention for a community to remain stalwart and resist than to change. This does lend credence to the claim that opposition is, in fact, a social support mechanism of institutionalized concepts. The bio-cost of a community changing its concept of community—in effect learning another language—is too high in the face of mechanisms that do not propagate trust, a sense of equity, risk mitigation and participation. What conversation theory suggests is the key mechanism of community opposition is pathology of the two-way concept building (novelty creating) mechanism of conversation. This can be viewed as a reactive regulatory correction, within the variety available to the community System, to maintain System stability during perturbation from its environment. With no active means to engage in conversation with industry, the information flow is seen simply as a perturbation in the environment to be dealt with through its standard feedback loop of goal steering and evaluation. Opposition is a natural compensation to a perturbation that draws away from the stable concept of community—a quasi equilibrious state. Without the channel for conversation from the

developing entity (government or industry or both) open in such a manner as to make available to the System of community, any information flow is liable to be regarded as environmental noise to be dealt with. The researcher posits community opposition to be the manifestation of this noise. Thus, pathology in a structural breakdown in the conversation theory model manifests as formation of community opposition groups – pathologies of conversation.

2.5   Discussion

It is of paramount importance at this point to distinguish between the three preceding rival theories. In the case of NIMBY, we have seen that the theory is somewhat narrow in its explanation of the opposition phenomenon. NIMBYists propose that a physical measurement to the site be the key parameter directly proportionate to the strength of opposition behaviour. This is a very materialist, positivist, and empiricist theory which places geography as paramount to opposition behaviour.

The NIABY theory rests firmly on the notion that society has created a reality that they now fear. The physical reality of modernization has caused the social phenomenon of fear; thus, producing a social need for trust, participation, and equity to mitigate the fear. This is a somewhat hybrid theory that lies somewhere between idealism and empiricism mixed with an epistemology of rationalism. Conversation theory is a radical constructivist theory that suggests the ontology of idealism; yet, because of its modelling component, allowing the practitioner to identify objective and subjective interactions and measure intelligence (of the System), agreement, and

misunderstanding takes on a more empirical epistemology. The power of the cybernetic roots shines through in the modelling framework and produces a tool that is easily transferable to the practitioner.

Systems perspectives, such as conversation theory, are also very much concentrated on the dynamic view of the interaction between two parties and not of the preconceived condition or repertoire that each party may hold before the dynamic interaction begins. This aspect is essential to understanding the differences between these rival theories. While, NIABY is a theory that presupposes a repertoire of emotions, behaviours, and attitudes that are locked in an environmental/conceptual co-dependency/interaction, that creates a movement of opposition by certain elements of the System, conversation theory does not presuppose the repertoire of any element previous to or during the engagement, only that the elements of a System arrive at an engagement with a predetermined repertoire and that these repertoires during a successful conversation will undergo isomorphism. Conversation theory stresses that improperly structured attempts at conversation where there is no "I/we" structure or at very least a very functional "it" based structure, will result in pathology. Therefore, conversation and the dynamic that this word represents, where controlled and controller are both one in the same, or as in the case of the "it" based structure, a positive feedback loop of communication is set up, are the key components of interest in conversation theory. This is much different from NIABY where the repertoires of the individuals in society are held up as paramount and unshakeable in their fear of modernization. The characteristic of society as a whole to mistrust science, industry, and

government is seen as a stalwart presupposed repertoire of each societal individual and therefore contributes to the manifestation of community opposition. NIABY ignores the quality of the act of engagement. While it brings to light the need of society members to participate in their own future and thus the future of their environment, it does little to enlighten one toward the actual message delivery method or acknowledge the importance of how science is communicated to the community; rather, it presupposes that participation is necessary because of the repertoire that is hypothesized as being a collective reaction of the modern "risk society." Conversation theory, conversely, is focused on the establishment of a two- (or more) way means of the negotiation of concepts toward a mutual agreement. The basis of conversation theory is the conversation and thus the communication between engaged elements of the System. NIABY theorists and those in particular who are of the school of risk communication theorists have passed over the significance of the engagement quality to some degree— likely because of their reliance on information and communication theory as a guiding theory of engagement. More explanation follows in Chapter Three.

Armed with a review of the conventional thought on community engagement and opposition, a comparison and synthesis of this literature to the cybernetic concepts underpinning conversation theory and with useful conceptualizations of community engagement and opposition, the researcher embarked on a proposition for the use of these theoretical models and tools to provide insight into the realm of community engagement. Given that, theoretically, organizations (community, industry, family, etc.) compute and maintain their own boundaries through conversation, as such they are

organizationally closed while being structurally open to information. Maturana & Varela (1980) define the organization of a machine (living or other) as constituent of "the relations that define a machine as a unity, and determine the dynamics of interaction and transformations which it may undergo as such a unity" and go on to define structure as constituent of "the actual relations which hold among the components which integrate a concrete machine in a given space" (p. 77). The authors go on to elaborate that this type of system will maintain its organization as a variable which is constant and yet through perturbation within its environment may change its structure many times. Until physical interference exceeds the organizations ability to compensate structurally to external perturbation the organization exists as an observable unity. Further to this point, conversation theory explains the manifestation of the self-organizing principles underpinning the formation of knowledge and insight found through conversation. Given these factors, the researcher used conversation theory and its associated models as the theoretical basis to provide insight for this research. The theory was used in a manner to explore the predictive role that pathologies of conversation has in the domain of community engagement/opposition. Conversation theory and its implications was used as formalism from which to structure an investigation into the formation of community opposition groups in the case of three separate landfill siting situations in Ontario, Canada.

The research used conversation theory as the benchmark with which to compare three community opposition groups in an effort to determine whether or not opposition can be predicted to some extent as pathology of conversation. Whether the

conversation is an "it" based transaction or an "I/we" transaction, as the literature has revealed a breakdown in the structure in either of these Systems, is the underpinning of pathology. The intent of this research was to determine to what extent a breach contributes to the impetus for the formation of community opposition groups. The literature also suggests other factors that may be at play including NIMBY and NIABY, which the research design probed in the case that these rival explanations were more predominant in their predictive nature than conversation theory models revealed.

2.6   Research Novelty

As suggested in Figure 2 and depicted through the use of the colors grey, yellow and red, there are several aspects of this research that provide a novel perspective to the community engagement domain. To begin with, a Systems view of community is not prevalent in the extant (depicted by grey boxes) community engagement literature. While the expression of community as a System and more specifically Cybernetics, Second Order Cybernetics and Conversation theory is prevalent in the literature as extant theories and explanations of Social Systems, the application of these theories is not found within the domain of community engagement and community opposition. The synthesis of extant theory and research explanations depicted in grey with the extant theories of Systems thinking are depicted in Figure 2 with the use of connecting lines and arrows and are depicted through the use of the color fill yellow.

This is not however, the primary novelty provided by this research. Through the exploration of the definition of community, engagement and eventually community opposition combined with the synthesis of a Systems view to these entities and

behaviours this researcher arrived at the conclusion that pathology of conversation be explored as a possible explanation / theory of the manifestation of community opposition groups. This is depicted in the red filled box in Figure 2.

It was discovered that the extant literature was sufficiently divided and inconclusive as to the reasoning behind the impetus for the manifestation of community opposition. In particular the NIMBY theory is highly contested and yet is still widely used as an explanation. NIABY, while being more comprehensive in its explanation, is certainly not ubiquitous in its acceptance within the domain as an explanation. The NIABY explanation as determined within the risk communication literature is inconclusive in its explanation of the apparent amplification / attenuation of risk within risk communication situations. The adoption and use of the theory of reflexive modernization has led to some possible conclusions regarding the manifestation of community opposition and yet would lead one to a conclusion that pinpoints amplification of the risk by the community in question but does not deal well with the attenuation aspect or with the aspect of the quality of the engagement. The researcher concluded that this gap could possibly have been attributed to the use of communication theory as the main perspective used within the domain and the static predisposition of the repertoire with which the community opposition members arrived at and maintained after the time of the engagement as suggested by the theory of reflexive modernization.

This research carried out a series of three case studies regarding the siting of landfills in Ontario. All of the cases were similar in nature and geography. This was done

in an effort to test whether or not, within these complex situations, a Systems view might better provide insight into the impetus for opposition group manifestation thus far inconclusive within the literature. What follows is a justification and explanation of the research methodology employed to best determine whether or not a Systems view might provide the insight necessary to fill the literature gap.

3   Research Design

3.1   Introduction

Thus far the researcher has presented a review of the literature within the domain of community engagement leading through to community opposition. This journey has revealed a gap in the community opposition literature that has led to the impetus for examination of community / industry engagement and community opposition through the use of a Systems view – namely conversation theory and pathology of conversation. The System view of a community and of a community opposition group as explored previously in the literature review ends with the understanding that these entities can be viewed as bounded systems. This is a radical constructivist view that suggests the System is one of conversation bounded by the collective and dynamic concept of "community" and yet open to the migration of elements and information operationally closed and yet environmentally coupled.

Given that community and the community opposition group can be viewed as a bounded system of interactions as depicted in Figure 3 and that the area of interest is compiled of the interaction of the elements of community, community opposition, government, industry, scientists and any number of other Systems comprised of their own elements, all of which are somewhat nonlinear variables it is easily arrived at that this situation is complex. The elements within the System of interest are individuals who collectively through conversation negotiate and renegotiate the concept of

community and community opposition. The group of interactions and concept negotiation also produces behaviours that can be observed but not controlled for as in a scientific or laboratory experiment. The situation is one that lends a bounded System as the area of interest and yet only allows for access to individuals. One cannot ask the question "why did you begin?" of a bounded System known as the community opposition group. This holds important limitations and influences the structure and type of inquiry design selected. In this situation the researcher is faced with a group or collective concept held and negotiated by a group of individuals as the unit of analysis (the cases) and yet be limited to the individuals of the groups as the source of the primary data.

In considering which research methodology to follow during a research Yin (2008) cites three aspects of the research situation that guide the selection of the research method. Figure 20 below suggests that three important aspects of the situation to be studied greatly guide the method selected.

METHOD	Relevant Situations for Different Research Methods		
	Form of research Question	Requires Control of Behavioral Events?	Focuses on Contemporary Events
Experiment	how, why?	yes	yes
Survey	who, what, where, how many, how much?	no	yes
Archival Analysis	who, what, where, how many, how much?	no	yes / no
History	how, why?	no	no
Case Study	how, why?	no	yes

Figure 20 Relevant Situations for Different Research Methods (Yin, 2008)

As stated previously this research endeavored to answer or provide insight into the question "why do community opposition groups manifest?" Following with the matrix in Figure 20 we see that the why type question eliminates Archival analysis and Survey as methods of inquiry for this research. The lack of control of the behavioural events would eliminate the use of an experiment and as discussed previously would clarify confusion that an experiment would create in the case of the abstract nature of the unit of analysis. Finally, if one follows the matrix, one can eliminate the use of history as a method of inquiry as one is dealing with the living and thus contemporary events that can be recounted through primary data collection.

The preceding matrix is only part of the support for selecting case study as a methodology for this inquiry. Yin (2008) and Stake (2005) both suggest that case study is the best methodology for inquiry into areas that are complex. As discussed previously it

is suggested that the arena of inquiry of this research is complex. In addition to the complexity available, it is important for the cases to be considered as bounded Systems (Creswell, 2007; Merriam, 1998; Stake, 2005). The phenomenon is clearly delineated as three separate and bounded cases / Systems.

Given the preceding qualifying characteristics of this inquiry the case study methodology was selected as the most appropriate. Details of the design of the research follow this methodological justification.

3.2   Design

This research follows with the case study structure suggested by Yin (2008) and illustrated in Figure 21 below. Among the case study designs the methodology suggested by Yin (2008) has been cited as the most rigorous and as having the highest degree of validity (Brown, 2008; Creswell, 2007). A search of Google Scholar reveals that the book (2013 edition) has been cited 145,508 times.   What follows is an exploration and explanation of the research design. The case study format was selected, as it was deemed best suited to the exploration of the individual elements of the System bounded as the community opposition group. The impetus for striking out in this direction was the rather large cost associated—both to industry and to society—of community opposition as mentioned previously. Thus, the goal of this research was to provide insight into the "why" question of the formation of community opposition group(s) within the domain of community-industry engagement. To increase the probability of enriched reliability and validity of various types the researcher elected to carry out a multiple case study. The multiple case studies provided the opportunity for

literal replication (Yin, 2008). In addition to this, the researcher exercised pattern matching between the following rival theories (explanations): pathology of conversation, NIMBY, and NIABY.
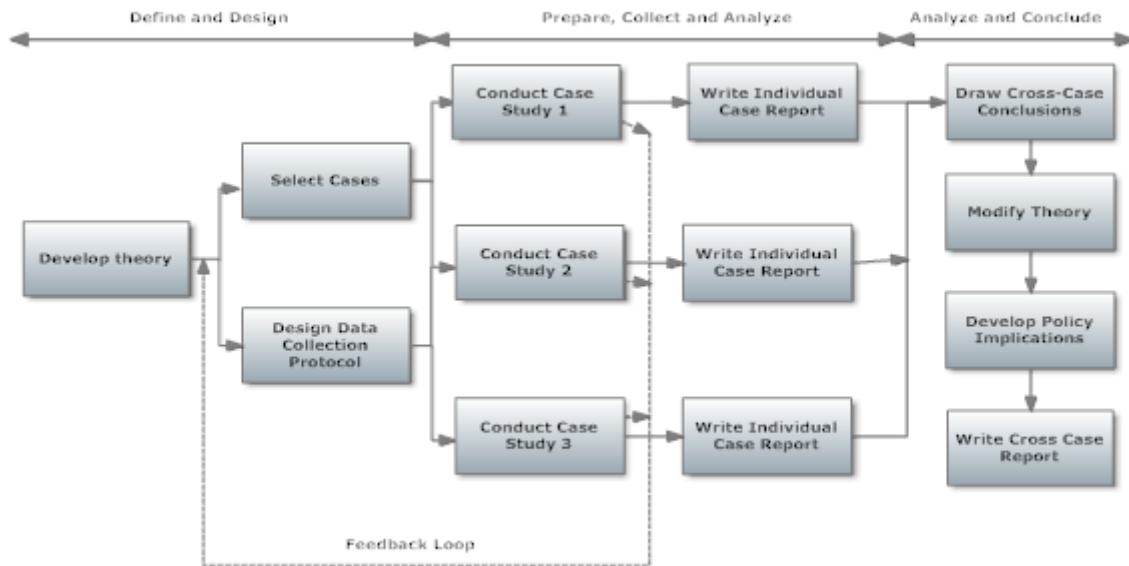
Figure 21 Replication Approach to Multiple Case Studies as adapted from Yin (2008)

It is important to stress that the term "variable" is used in this research. In qualitative research, the terms independent and dependent variables are used to denote nominal and unordered entities within the area of interest such as age, gender, race, or in the case of these theories, the allusions toward feelings or attitudes such as, in the case of NIMBY, (dependent variable) = geographic proximity to the LULU (first independent variable) coincident with an attitude expressed as an understanding of the need for LULUs (second independent variable). These qualitative variables differ from quantitative variables in that they are an indication of the presence of this quality or attitude as opposed to a quantitative variable that is an indication of quantity or magnitude (Wang, 2004). For more on the use of this terminology in research

methodology, see Berg (2001), della Porta and Keating (2008), Wang (2004), and Yin (2008), among others.

The technique cited previously makes use of unique independent variables that in this case would explain the dependent variable, community opposition or in this situation the cause(s) of community opposition group formation. Specifically, and in keeping with the thought that some of the independent variables of rival explanations must preclude the presence of the independent variables of other explanations, the researcher very briefly summarizes the preceding literature review of the rival theories.

3.3   Rival Explanations

3.3.1   Pathologies of Conversation

Conversation theory is an explanation that is of primacy to this research and can be condensed as follows: conversation is the key to human interaction that is open, learning-oriented, collaborative, and fair to the elements involved. If the structure is compromised in some manner, pathology occurs (Pangaro, 1989) – pathologies of conversation. The following diagram (Figure 22) illustrates one side of a conversation and the option of an "it" based conversation (vertical interactions on left side see figure 15) or an "I/we" based conversation (horizontal interactions) across a context (central vertical line). This model is a diagrammatical rendering of conversation theory and exemplifies one of the major differences between a Systems approach and other theories such as NIMBY and NIABY. The strength of the modeling capacity of conversation theory is that it can be used to model any type of interaction between two language-based beings. Therefore, the interaction of two human beings, groups or social

systems or even an individual who holds an inner dialogue to come to novel concepts or take decisions regarding a situation can be detailed. Modeling in this way stems from the cybernetic roots of conversation theory and affords the modeler opportunity to identify and measure goals and actions (objective interactions) and peer-to-peer language exchanges (subjective interactions). The modeler then can track intelligence (of the conversation System), agreement and misunderstanding in a highly effective manner.

The solid lines represent explicit communications while not being entirely objective because of the interpretation of the receiver. The dashed lines are communications that are implied or inferred. The "I/we" based interactions are absent a controlled or controlling process and as such indicate participation. The vertical "it" based lines indicate a controlling/controller relationship. These relationships do not need to be present at the same time but are depicted to provide acknowledgment that both types of interaction can take place.

At point "A" is a controlling process, point "B" is a controlled process, point "C" is the line of control that causes the lower level to respond, point "D" is the feedback regarding the performance of the controlled level to meet the objective of the controlling level, point "E" is the comparator that evaluates the results of the controlled to the objective of the controller, point "F" is an iterative loop that makes adjustments to the control process "A" and forces a repeat of the cycle toward greater effectivity. If all components are identifiable and functional, the System is deemed intelligent.

The "I/we" conversation depicted begins at "G" or a communication about a goal. At point "H" is the receiver's interpretation of the sender's signal—the interpretation of the signal regarding the goal that has been sent. This differs dramatically from communication and information theory in that the signal is not seen as a message and percentage of noise but rather as a message and a distortion from interpretation. Thus, the subjective nature of the conversation is trapped and incorporated in the measurement of conversation theory where communication theory and information theory make use of a somewhat limited signal to noise ratio that is much more objective and is really mostly pertinent in measuring audio quality over conductors and through loudspeakers. At point "I" there occurs an inference of a higher goal. This is not the original goal but rather an inferred goal that is consistent and affirming of the original goal communicated but is inferred and so nothing has actually been transferred. This inference is often a function of the context or the common experience of the conversation—for example, an inferred goal based on trust established from a face-to-face meeting (Pangaro, 1989).

At point "J" another communication is seen—communication about method. Where point "G" depicts a communication regarding a goal or strategy point, "J" Is a communication about method or the tactical portion of the goal message. At point "K," we see that interpretation of the message regarding method. The check of consistency depicted by dotted lines at point "L" occurs in the receiver and is a complete circuit between upper and lower levels resulting in a consistency of some degree between very close to the original goal and method and only marginally close to the original goal and

method. The receiver may establish at this point an inconsistency with the goal and method and may then begin a communication back (not shown) or maintain an understood inconsistency in the sender. For simplicity, the responses and iterations back and forth are not shown; however, these iterations are what constitute a conversation and the negotiation of agreement—including agreeing to disagree.

If in A through F, a mechanism is missing or a function is unavailable or incorrectly assigned, then the system cannot be seen as intelligent. If in G through K, there is a breakdown, then miscommunication has likely taken place. No closure at L implies a misunderstanding or intentional miscommunication. Data will be collected and from it patterns derived which will be compared to the pattern illustrated here (see Figure 22). The independent variables, in this case, will be the implied presence of any of these departures from the model of conversation. The antecedents of the pathologies of conversation are lack of trust, sense of mistrust or fear, and a sense of inequity, as those who are being controlled without access to mechanisms of control.
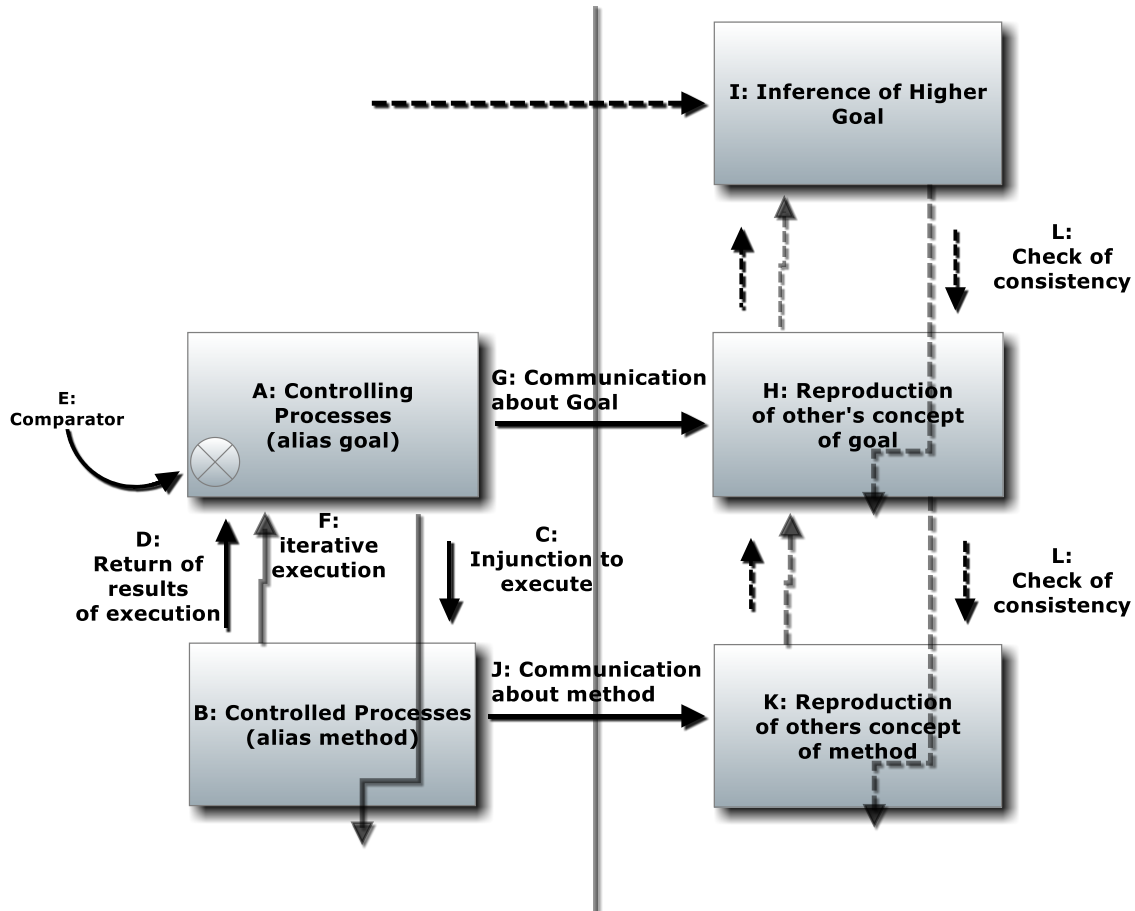
Figure 22 The Architecture of Conversation as adapted from Pangaro (1989)

3.3.2   NIMBY

NIMBY, as discussed earlier, has a pattern of geographical significance where the

opposition is said to diminish with the increase in distance from the location of the LULU

while maintaining a firm positive understanding of the need for the LULU—just not in

their backyard. This theory forms a rival explanation for the formation of community

opposition groups and will be a predicted pattern for comparison to those observed

from the research. The unique independent variables, in this case, are the geographic

proximity of the opposition group leader and (i.e. grouped with) the recognized need for

the LULU, which constitute an inter independent variable dependency, in the case of NIMBY.

3.3.3 NIABY

Finally, NIABY (not in anyone's back yard) is a rival explanation to the preceding explanations. The basis for this rival explanation stems from reflexive modernization and general lack of trust in science, a desire for equity and participation, and a means through which risk may be addressed. NIABYists are claimed to have a general opposition to the production of toxicity and believe that solutions lie in the reduction or elimination of toxicity at its source. The independent variables in the case of NIABY theory are a mistrust of government, science, and industry and a general attitude of detoxification at the source rather than an acknowledged need for the LULU.

Following the pattern matching analysis, individual case reports will be written, and the final cross-case synthesis will be constructed with appropriate modifications to extant theory. Finally, a cross-case synthesis will be carried out to generalize the extant theory regarding causation of community opposition. In this sense, the research is not a statistical generalization to a population; rather, it is an analytic generalization to a theory(ies) (Yin, 2008). The results are summarized in a final cross case report.

Some components of the theories, especially those constituting NIABY and conversation theory may appear to overlap and be similar. Using pattern matching, however, all components have been taken into consideration, and the theories themselves used to ensure that appropriate interpretation of the data took place. The

rival theories while interpreting the same phenomenon of community opposition are at their root very different. The similarities of components are more reflective of the common situation than the commonality of the theories.

3.4   Research Question

"Why do opposition groups manifest?"

3.5   Research Propositions

3.5.1   NIMBY

- Community opposition groups form because of the members' geographic proximity to the development

- Community opposition groups form because of selfish desire to preserve the status quo in the local environment while still agreeing with the need for the LULU in question

3.5.2   Conversation Theory and Pathologies of Conversation

- Community opposition groups form because of an improperly structured model of conversation as detailed in the rival theories section—pathologies of conversation

3.5.3   NIABY

- Community opposition groups form because of a general lack of trust of governments, science, and industry attitudes toward community well being

- Community opposition groups form as a means of risk aversion/management

3.6   Unit of Analysis

While the research was primarily interested in the impetus underpinning the formation of the community opposition organizations and as such defined the three organizations as the "cases" and the unit(s) of analysis, it is understood that the individual founding members of the organizations were interviewed and seen to be the data source(s).

3.6.1   The Community Opposition Organizations

3.6.1.1 The Oxford People Against Landfill (OPAL) Alliance

The OPAL Alliance claims to be a group of concerned taxpayers and business owners banded together to stop a proposed landfill. The website describes the group of concerned citizens as having members that have lived for generations in Oxford County, and the word alliance is used because of the group's close affiliation with other groups from Oxford and across the province concerned about landfill (OPAL Alliance, n.d.). The proposed landfill site that the group is concerned with is the Walker Environmental Inc. proposed use of the Carmeuse Lime Inc. quarry in Centerville, Ontario. This dead quarry is adjacent to Ingersoll and Beachville, Ontario and is very close to the Thames River.

3.6.1.2 NoDump.ca

NoDump.ca claims to be a grassroots organization comprised of local residents in direct opposition to the expansion of an existing landfill site. The landfill in question is the Carp Rd. facility in a rural Ottawa area proposed by Waste Management Inc. The group claims to oppose the expansion of the landfill in addition to opposing the general concept of landfill in favour of alternative methods of waste disposal (NoDump.ca, 2012a).

3.6.1.3 The Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE)

This group is in opposition to a Taggart-Miller proposed 450-acre landfill site in Carlsbad Springs, Ontario. The broad group is officially titled the Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE), and Dump this Dump 2 is the name of their current campaign ("Dump This Dump 2," n.d.-a). The group is self-described as a non-profit community group dedicated to protecting the environment and opposed to the landfill proposed.

3.7   Logic Linking the Data to the Propositions

What follows is the chain of logic linking the data to the propositions:

- The dependent variable is the creation of the community groups. There is no dispute as to whether the community groups exist. The question is why they manifest, what is the initial trigger that contributes to the relinquishment of the

autonomy enjoyed by community members and leads to the organization of the opposition groups? Therefore, patterns in the dependent variables described by the founders of the community groups have been identified and coded. Their frequency of occurrence is noted as indicators of their degree of influence on the formation of the community groups.

- Data gathered from interviewing the foundational members of the community opposition groups has been analyzed for emergent themes that reflect the underpinning structural foundation of the rival theories. Analysis of the data has been done through a coding regime of the transcripts of the interviews and then analyzed with the use of NVivo 11 Pro qualitative analysis software. The researcher has identified patterns in the data that either refute or support the unique independent variables of the rival theories. This is not hypothesis testing in its strictest form but rather pattern matching. In this sense, the protocol for pattern identification (pattern matching) has been used (Betzner, 2008; Dubé & Paré, 2003; Gilbert et al., 2008; Yin, 2002). The independent variables in this research are found as underpinning the theories that carry the base patterns from which the matching to the case will take place.

3.8   Data Collection

This research, as described previously, is a multiple case study using the pattern matching protocol and rival theories (explanations). A cross-case synthesis follows the construction of the individual case studies and reports. The primary method of data

collection entailed several personal semi-structured interviews with founding community opposition group members. In addition to this, supporting evidence was collected from several data sources. An initial approach was taken by phone and email to set up interviews with these members and then a subsequent snowball method was used to glean the input of those who the founding members might see as having been instrumental to the formation of the groups.

3.8.1 Data Types (Sources)

1. Documentation - newspapers, industry correspondence, meeting minutes, websites, etc.

2. Archival records - maps, statistics etc.

3. Interviews - personal interviews of the founding members of the opposition groups and current members of the opposition groups, if possible

4. Direct observation - attendance at meetings, events, photographs, etc.

3.8.2 Interview Questions

The following questions were asked of the individual founding members and of anyone who the founding members felt were instrumental in the formation of the opposition groups. The questions were formulated to derive data suitable for analysis and pattern development to be matched with the rival explanations.

These questions were formulated based on the views and protocols suggested within the literature on this subject (Becker, 1998; Creswell, 2007; Kvale, 1996, 2006; Yin, 2008). The desired result of the questions was to produce insight into the lived experience of the interviewees. While the interview questions designed were presented in a consistent format to the interviewees, the questions were designed to be open ended and to inspire conversation, as in the questions asking how, or to produce certain factual information as seen in the what and why or why not questioning. The why or why not questions produced a bifurcated answer and dispelled the accusatory need for a "good" and defensible answer that a simple "why" question can invoke (Becker, 1998). What information was sought from these questions was the reasoning behind the choice for the interviewee's response. Further to this strategy and protocol some questions were formed to produce a very open ended and personal experience response. These questions are those that ask the interviewee to describe situations or relationships and are closely related to the "how" based questions. The intent of the questioning was to produce insight into experiential motivation and dialogue regarding lived experience but maintain structure sufficient to not devolve into therapeutic and biased commiseration (Kvale, 1996).

The interview questions began with a briefing of the process about to take place and a description of how the interview would be recorded, transcribed and then edited and checked to ensure that the transcriptions were correct – by both interviewer and interviewee. The final question was formulated to allow for a debriefing of the

interviewee in order to provide a vehicle for the interviewee to express any concerns or anxiety that may have been developed during the interview (Kvale, 2006).

As mentioned previously the formulation of the interview questions was also underpinned by the desire to seek the interviewee's perspectives regarding the three rival theories at the basis of this research namely; NIMBY, NIABY and Pathology of conversation. Detail of what information each question was to provide is available in Appendix A under the sub – sub - sub section "Case Study Questions".

1. How did you first come to know of the landfill proposal?

2. When did you first come to know of the landfill proposal?

3. How long after you knew of the proposal did you decide to become involved in or form your group (OPAL, ND, CRCCPE)?

4. Why did you become involved with or form your group (OPAL, ND, CRCCPE)?

5. Can you describe in detail the events leading up to your involvement?

6. How close do you live to the proposed landfill?

7. How far away from the landfill would you say your house would have to be before you felt you would no longer oppose it?

8. Can you describe in detail what your level of trust is of the company proposing the landfill?

9. Can you describe in detail what your level of trust is of the local government involved with the landfill? Provincial? Federal?

10. How would you describe your confidence in the science that has been presented as part of the landfill siting thus far?

11. Can you explain your confidence level in science in general?

12. What is your main point of opposition to the landfill?

13. Can you explain how well the landfill company listens to your concerns?

14. Do you feel the process has been fair in terms of the community influencing the decisions being made involving the landfill? Why or why not?

15. Can you explain why or why not there is a need somewhere for landfills?

16. Can you detail any times when industry has not been open to hearing your concerns?

17. Can you explain to me what community means to you?

18. Can you explain to me what industry means to you?

19. Can you explain to me what landfill means to you?

20. How did you decide to form your group (OPAL, ND, CRCCPE)? Was there a method or a template that you used to design the organization?

21. Why did you form the organization?

22. Do you agree with all the decisions made by the organization? Why or why not?

23. Do you sometimes compromise within the organization to maintain a sense of comradery and strength in the outward appearance of the organization? Why or why not?

24. Have you been involved in community opposition groups before? Why or why not?

25. Do you feel the landfill company will give back to the community? Why or why not?

26. Do you feel that the landfill company is building bridges of interaction with the community? Why or why not?

27. What is the main way that the company communicates or communicated with the community initially?

28. Can you detail what group has had the majority of control over the landfill development?

29. Will anyone other than the company benefit from the landfill? Why or why not?

30. Do you feel your community deals with its garbage as well as other communities? Why or why not?

31. How long have you lived in the community?

32. Would you consider leaving if the landfill is approved? Why or why not?

33. Do you fear for the future of your community? Why or why not?

34. Do you have any other comments that you would like to make concerning the community opposition group, the company, the government, or anything else that we have covered today?

3.8.3   Interview Detail

Interviews took place in mutually agreed environments that were quiet with little distraction and included a majority of telephone conversations. The interviews were recorded on a digital PCM Linear recording device or through an online recording service. Transcripts were compiled by a third-party transcription service. The researcher followed a research protocol as found in detail in Appendix A and made the interviewee aware before the interview started of their rights to refuse to answer any question and

of the Research Ethics Board review of this methodology in terms of research ethics. The interviewee was also advised of the use of the data (i.e. pattern matching), where data is stored, how long it will be stored, and the opportunity for them to review the data and analysis before the submission or defense of the dissertation.

3.9   Data Analysis

While aggregation of the extant literature reveals a typology of community engagement with varying reported success rates, the review also revealed rival explanations for why community opposition groups form. The analysis of the data in this research considers the raw data in terms of a coding set determined and detailed below. Interviews were recorded on a digital voice recording device and then transcribed. From this data were extracted convergent and divergent "themes" based on the coding set. The coding set was derived based on the literature review and the common themes available in the literature. NVivo 11 Pro was used to analyze, organize and code all data from the four data types listed previously.

The themes and their prevalence in each individual case were examined and reported upon initially. At this juncture, each individual case was written and analyzed through use of a pattern matching strategy for independent variables (Yin, 2008). In this case, the independent variables will be extracted from the extant literature: pathologies of conversation, NIMBY, and NIABY. This analysis strategy used the data available to provide support or refutation of the rival explanations (independent variables) to

explain the formation of the community opposition groups (cases), which in this situation are the dependent variables.

The analysis continued with a cross-case synthesis (Yin, 2008) to examine consistencies within the explanations for each case and between the cases. Identical explanations across cases would demonstrate literal replication and allow for a more robust and assertive claim to the explanation.

3.9.1 Coding Set

The following is a list of codes that formed the initial analysis set, as mentioned previously. This set was established first by analyzing the extant literature regarding the different explanations and reducing this material to paraphrases and or generalizations being careful to preserve the original meanings. Next, the generalizations were reduced to themes or phrases that attempted to maintain the meaning and yet present the meaning in a concise way. These were then used as codes for the analysis of the data. The codes are as follows:

- Alternative Means of Disposal

- Engagement Methods

- Communication Methods

- Cultural Borders

- Symbolic Borders

- Geopolitical Borders

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

- Social Borders

- Participation

- Engagement

- Dialogue

- NIMBY

- NIABY

- Benefits to the Community

- Benefits to the Firm

- Previous Activism

- Concept of Community

- Empowerment

- Sense of Community

- Quality of Engagement

    o Transitional

    o Transactional

    o Transformational

- Reflexive Modernization

    o Trust

    o Equity

    o Participation

    o Risk (aversion)

- Compensation

- I/we- vs. It-based Communication

- Conversation Pathologies

3.9.2   Process Steps for Coding

3.9.2.1 Level 1 Coding

Initially, the coding set above was used to categorize and label the data from interviews, notes, public documents, websites, and objects (photos, videos, etc.). This first level coding was done to produce a set of labeled data. Some data was labeled with more than one code.

3.9.2.2 Level 2 Coding

All level one coding was then evaluated and recoded into further focused and emergent codes produced through analysis of the first level coded data. The primary focus of this coding was done to begin to develop categories within the data. Some data codes remained in their level one format.

3.9.2.3 Level 3 Coding

Level 3 coding is the axial and or thematic coding mentioned previously. In this coding step, themes that resembled patterns emerged. These refined themes represent strong consistencies from the data.

3.9.2.4 <u>Level 4 Coding</u>

In this step, the themes were further refined and focused into theoretical concepts. These theoretical concepts are the patterns that were matched to the extant patterns underpinning the rival theories. The derivation of the theoretical concepts (i.e. the emergent patterns from the data) is the primary focus of each of the case study reports. They were then compared to the underpinning patterns of the rival explanations. This is the basis of the pattern matching process detailed previously with all its benefits regarding reliability and validity that will be discussed next.

3.10 Criteria for Interpreting the Findings

The criteria for interpreting the findings stem from the previously explored rival explanations and their associated propositions. A full exploration of rival explanations for findings in the analysis logic was employed as criteria for interpretation and to increase internal validity of the research (Yin, 2008).

3.11 Reliability Tests

The following tests and structural features of the research are explained here, as they are deemed key in improving or ensuring the reliability of the research.

3.11.1 Construct Validity

Construct validity in this case study research was approached using three separate tactics: multiple sources of evidence, an establishment of a chain of evidence and the review of the case study reports by the interviewees. Multiple sources of evidence were mentioned previously in the section related to types of data. Construct validity is bolstered by corroborating interview data with other sources of data such as print, archives and media reporting.

Establishing a chain of evidence is a matter of including a transparent and traceable methodology such that a researcher might trace the evidence from the research question through to the conclusion and back again such that the research might be executed in the same manner elsewhere. Checkland and Holwell (1998) suggest that by securing a detailed methodology, one is exercising one's only means of ensuring validity in the realm of qualitative discovery. They claim this as it is possible for the methodology and the mental framework of the inquiry to change during the investigation, and thus it is paramount to detail what was planned and what occurred during the investigation/inquiry.

Finally, the interviewees that are the subjects of the case reports in this research were allowed to review the reports and comment as to their agreement with what was deduced. This was helpful in verifying and corroborating essential facts within the case study (Baxter & Eyles, 1997; Lincoln & Guba, 1985).

3.11.2 Internal Validity

The key strategy utilized in the research to bolster internal validity was pattern matching. Patterns that coincide with empirically derived patterns are said to be of a nature that strengthens internal validity. Certainly, it is not an intellectual stretch to conceive of the comparison of established patterns in rival explanations for the derived patterns from data, allowing the reader of the case to determine for themselves the degree of matching that has taken place.

3.11.3 External validity

This reliability test determines the degree to which the conclusions can be externalized and generalized to other situations where the phenomenon may occur. The nature of multiple case study and pattern matching within the cases greatly improves the external (and internal for that matter) validity of the case study. While it is not a guarantee of generalization to a universe (nor should it be considered in that manner), it is a step toward external generalization in the case of similar contexts.

3.11.4 Reliability

This test is derived to reduce the inconsistencies, errors, and biases in the act of researching. It was the researcher's intent to pay respect to the meticulous detailing of the methodology throughout the research. As with internal validity, replicability of methodology in a different situation with the same characteristics as the phenomenon of interest is a characteristic of research that is considered reliable. One tactic that was

incorporated to add granularity to the research process was the research protocol, which can be viewed in detail in Appendix A.

In addition to these aspects this paper its structured as a multiple case study. Several case studies involving similar situations with an identicle methodology applied lend to a higher level of reliability.

3.12   Limitations of the Research

3.12.1 Observer Bias

Certainly, a much-published criticism of many types of qualitative research is observer bias. Without belaboring the dissertation with what is liable to amount to an unsolvable ontological debate (at least one that is not easily solved), suffice it to say that the researcher has considered actions that will minimize this effect. The effect, of course, is that the observer in this case is somewhat immersed within the observed and may by his very presence affect the outcome of the observation. Unfortunately, this effect is unavoidable, as is the effect of observation in the domain of physics where at the subatomic particle level of observation the observer will produce a duality and is left to "predict" either the location or the velocity of the particle but never know both certainly (von Bertalanffy, 1950; Foerster, 2003; Heylighen, 1992; Heylighen & Joslyn, 2001; Kauffman, n.d.; Mingers, 2006). This would not be a very well-grounded research study if the researcher was not aware intimately of the potential for and the inevitability of the influence of the observer, for the basis of second-order cybernetics is that of the cybernetics of the observer—the second goal setting loop is that of an observer.

The measures taken were similar to those that have been taken by many of the rigorous case study scientists in the past. The previously discussed reliability tests are at the fore in establishing a promotion against bias. The protocol that has been detailed has many features, including multiple cases, open-ended questions and transcribed interviews, a research database, supplied in digital format using NVivo 11 Pro, with the researcher's notes, the use of secondary data such as newspaper and website corroboration of claims and historical documentation. These measures, down to the use of a digital recording device that is intended for live audio recording (in this case a Tascam DR-100MK II Linear PCM Recorder) were all employed.

3.12.2 Recollection of Information

While these cases are of a protracted nature, they are also contemporary and it is probable that most memories were fresh. The patterns that are identifiable within the literature, as the basis for matching, are of an objective nature in that they are relatively stable constructs with several academic sources available for each. This fact, grouped with the researcher's use of triangulation through collection of third party data such as news articles and archival literature should have aided greatly in the reduction of error through lack of recollection.

3.12.3 Timing and Participant Selection

The founding members of the community opposition groups were easily located and contacted, as all the opposition groups had web pages and contact email addresses.

From there, the participants were contacted individually by email and eventually by phone. It was part of the interview process to verify that they were, in fact, a founding member through corroboration with other founding members and historical documents. All potential interviewees were screened for authenticity and allowed to read and agree to the basis of the interview.

It was the intent that the interviews all take place within a very short time frame to eliminate the possibility for interviewees to communicate between interviews. This was perhaps impossible to avoid; however, interviewees were encouraged to not speak to one another until all interviews for their specific group were complete. This was difficult for groups that are still comprised mainly of founding members; yet, it was encouraged and was upheld.

3.13   Discussion

The research described in this dissertation has undergone careful consideration in its formulation. Checks have been made to ensure utmost rigor and validity in its formulation and background research (secondary research). The research design borrowed from stable protocols for this type of research and followed a detailed description of an extant framework of ideas, a methodology, and an area of concern. According to Checkland and Holwell (1998), among many others (Baxter & Eyles, 1997; Dubé & Paré, 2003; Eisenhardt & Graebner, 2007; Gilbert et al., 2008; Golafshani, 2003; Morgan & Smircich, 1980; Poland, 1995; Van Der Blonk, 2003; Yin, 2008) previously mentioned, the most important aspect and responsibility of the qualitative researcher is the adherence to a strict reporting of the methodology used. This is what is referred to as the "Recoverability" criterion, and it has been adhered to throughout this research (Checkland & Holwell, 1998).

This research is, of course, business research primarily, yet it may have substantial implication toward any scenario where human interaction of a positive nature need take place. We appear to occupy a space that is contrived of the processes of concepts held in the human history with an ever-present opportunity to change our current direction based on simple behaviours controlled by micro processes of interaction.

4   Case Study Reports

4.1   Case Study Report 1

4.1.1 Introduction

All the case study reports are arranged, analyzed, and reported in the most anonymous manner possible. As these cases are for the most part still active and of a nature that could possibly compromise the standard of life, occupation, or general perspective of those in the prospective areas, names and locations, where possible, have been eliminated from these reports. This was done with the consideration that the data and analysis are not likely to be affected in any way, given the current research question and anticipated conclusions.

Analysis of the data revealed material that both supported and refuted the dimensions of the extant explanations for the manifestation of the opposition group. The analysis of the data also produced three new themes: moral hazard, a threat to normalcy, and a temporal dimension, which show promise of pushing forward the extant explanation.

Along with the emergent themes is presented a pattern matching exercise based on the codebook presented in the research proposal. A weak match is found in the NIMBY explanation and a somewhat stronger, yet still flawed, match is discovered in the NIABY explanation matching process. The best fit and most interesting explanation, combined with the emergent themes, is that of the pathologies of conversation theory.

The case concludes with a discussion and a conclusion section that extend the pattern matching exercise to a revelatory and insightful area of the research.

4.1.2   Context of Data Collection

This case situation occurs in the province of Ontario, generally in the Oxford County area. The first occurrence of media coverage of the proposed landfill appears to be in March of 2012 (QMI Agency, 2012; Vandermeer, 2012). This timeline was corroborated by some of the participants in statements such as

"Let see here, so it's been four years now, so it was 2012 and it was very early on in the process, so I guess that would probably have been March, late March, early April 2012";

and "I first came to know about it through social media but it was actually a newspaper article published in the Sentinel Review, which is a Woodstock newspaper. And so that article appeared on my news feed on Facebook, and I read the article."

The Industry stakeholder, Walker Environmental group (WEG), has made an application to the Ministry of the Environment proposing a landfill in or near the communities inhabited by the participants interviewed as part of this case. The terms of reference have been, as of March 17, 2016, approved (Murray, 2016), which means that WEG must now adhere to and complete a number of environmental studies to determine the feasibility and environmental integrity of the landfill. This process could take a year or more. The Provincial Government (Liberal) is the key governing authority

in this situation, as they are the governing body to be consulted with for approval of the landfill and most of the legislation falls under the jurisdiction of the Provincial government.

Other stakeholders involved include municipal governments, the community at large, the federal government (Liberal), community opposition groups, Indigenous peoples, and scientists, among others. The surrounding communities could be considered small urban or rural in nature where agriculture contributes a high percentage to the GDP of the area. Other economic activity in the area includes manufacturing, construction, tourism, retail, and institutional activities (hospitals, schools, municipality, etc.).

The population of southwestern Ontario (SWO), of which Oxford County is a part, is 2,504,878 as of 2011. This represents around 20% of southern Ontario's total population (12.1 mil.), and thus, approximately 7% of Canada's population. The major cities in SWO include London, Brantford, Cambridge, Chatham, Goderich, Ingersoll, Kitchener, Owen Sound, Sarnia, St. Thomas, Stratford, Tillsonburg, Waterloo, Windsor, Guelph, and Woodstock. The majority of the population is English speaking and next to Canadian report heritage as English, followed by Scottish, Irish, French, German, Italian, Chinese, and East Indian. Unemployment rates range from 4.2% to 9.7% up from 3.7 % and 9.0% in Guelph and Windsor respectively (Statistics Canada, n.d.).

4.1.3 *Issues Encountered*

In general, as concerns this case, no issues were encountered. It is possible that more interviewees could have participated; however, most of the founding members

were most amenable and wanted to tell their perspective of the situation. Some of the members of the opposition group have dropped off because of life commitments or burnout and were either unavailable or did not wish to be interviewed. A few who did not wish to give an interview had had a falling out with others in the opposition group. This said, in this case, the initial founding member was identified and interviewed as were the majority of the founding members, many of who are still involved. In total six participants were interviewed including what the researcher considers to be the single impetus individual for the formation of the group.

4.1.4   Data Analysis

4.1.4.1 <u>Method for Analysis of Documentation</u>

Secondary data was collected from several sources including internet-based newspaper articles, videos, newsletters, mailed correspondence, photographs of signage taken within the community, and legislative documentation and statistics available on-line. The preceding sources were mined and studied by the researcher and uploaded into NVivo software. After the organization of the sources, the sources were analyzed and coded per the planned coding regime mentioned in the methodology section of this thesis. Any emergent themes in the data were added as new nodes in the coding regime.

4.1.4.2 <u>Emergent Themes from Documentation</u>

Two important themes that emerged from the secondary data/documentation were the temporal aspect of the reaction to the announcement of the LULU and the

implied moral hazard that was interpreted by the opposition group. The publications and subsequent posting of videos of demonstrations revealed the speed with which the opposition group formed and took action. The timeline is alarmingly fast and fully chronicled in the secondary data through the posting of dated newspaper articles and dated YouTube submissions, etc. This temporal aspect of the reaction time from announcement to formation is of interest to this research, as it provides a detailed ontogeny of the opposition group that may be missing in the reviewed literature. This is important, as most research views the phenomenon at play as somewhat static and monolithic. While some of the themes stand without any influence from time, it would be remiss to not be aware that some phenomenon, at least in this case study, are dynamic and shift over time. Also of note is that individuals not ever involved in activism previously can become active in a very short period of time.

The second emergent theme in the secondary data for this case study is that of moral hazard. Moral hazard is closely related in this case to equity and aspects that have been identified as integral to reflexive modernization. Moral hazard, which is primarily an economic theme, is defined when one party takes on more risk in a situation when the cost of the risk will be suffered by another party as opposed to the amount of risk they would take if the cost were to be suffered by themselves (Hölmstrom, 1979). While this theme is not initially available as a perspective in the data, it becomes a profound perspective as the opposition group evolves. The research done by the opposition group and the conversation held in the secondary data support the perspective that the provincial government and the proponent business both stand to profit and benefit

from accepting the risk, the cost of which will be shouldered by the community opposing the LULU. The importance of this phenomenon will be stressed further later in this thesis; however, the fact remains that this moral hazard serves as a reinforcing aspect for the opposition group in forming the repertoire of understanding regarding the situation. This aspect of the situation should be viewed as an amplifier for the already established mistrust of perspectives and motivations outside of those involved with the opposition movement (i.e. government, industry, scientists etc.).

4.1.4.3 Protocol for Transcription

There was no significant deviation in research protocol from that already described in this paper earlier in the methodology section.

4.1.4.4 Triangulation of Data

Data triangulation was carried out throughout the analysis and write-up of the thesis and was used to corroborate facts between claims in both the primary and secondary data. Timelines were also clarified and corroborated using this method. In general, the aspects of the different theories were identified and either supported or refuted using this method of evidence identification within both the primary and secondary data for each individual variable of the unique theories/patterns.

4.1.4.5 Coding Procedure and Protocol

Coding was done manually and followed the protocol of four levels as previously detailed in the methodology section of this research. NVivo 11 was used as an organizing tool only and no other analysis tools within NVivo were used save for the

word cloud produced and illustrated in Figure 1. As themes emerged from both the secondary and primary data, they were recorded as nodes in NVivo. The final codebook can be found in Appendix B.

4.1.4.6 Emergent Themes from Transcription

Of particular interest to this research was the emergence and profound existence of the theme the researcher has coined as the "threat to normalcy." It is important that some clarification be given to the term at this point. Normalcy should be thought of for purposes of this research, as an intra/intercultural dialectic (Milstein, 2013). Normalcy, in this case, is established by the participants as a collective cultural perspective that encompasses not only geography but community and family, the concept of home and an intergenerational responsibility to protect that normalcy. The researcher suggests that this is what Giddens (1991) refers to as an ontological security. The members of the community who participated and who were founding members of the opposition group expressed a strong sense of the threat to normalcy, or put another way the identification of a difference between a going on being and a not being when considering their reality. The theme of threat to normalcy then can be viewed as an existential domain held in the psychological repertoires of the opposition group members.

This theme will become more evident and will be explored at greater length in the pattern matching section of this analysis; however, the theme is revelatory in its explanation of the vigor and expedience with which the founding members of the opposition groups take action. Mention is made by many of the participants regarding

their generational history in the geography and that they have a responsibility to the area for their children as well. An announcement in the newspaper regarding something as disruptive as a LULU (in this case a landfill site) is interpreted immediately as a source of anxiety, mistrust, and fear. The act of communication has provided no vehicle to promote conversation, to set up meaningful dialogue, or provide a safe environment for mutual participation. This can be interpreted as a threat to the carapace formed collectively by the opposition group members; thus, their ontological security, their on-going, is being invaded. The announcement is made by some distant entity or organization that appears to be hiding behind a wall of one-way communication and is immediately interpreted as a threat to be feared and mistrusted. Simply put, the announcement of the LULU is a threat to the very basis of the established reality or normalcy of the individuals involved.

Further support of the emergent themes established in the secondary data analysis is also found in the primary analysis. Moral hazard and the immediacy with which action is taken are themes that are prevalent in the primary data as well. Some participants admit that they are motivated immediately and yet have never participated in any activist behaviour in the past and have no idea where to begin. An exercise in pattern matching reveals more nuances regarding the dynamics of the opposition group formation and begins to enlighten the reader as to some of the impetus for the formation of such a group.

4.1.4.7 <u>Statement of Extant Explanations and Pattern Matching</u>

While, the extant explanations for why community opposition groups form have been explored at great length previously in this dissertation, they are presented here in an abbreviated form. First, the extant explanation is presented and then the analysis of the data is used to either support or refute whether the explanation is a good "fit."

4.1.4.7.1 *NIMBY*

Succinctly put, the Not In My Backyard (NIMBY) explanation states that those who oppose the LULU acquiesce with the need for LULUs but not within close proximity to where they live—their "backyards." There are two variables that are essential to this explanation; the spatial aspect of geographic proximity and the somewhat elitist suggestion that although necessary, LULU's are best dealt with out of sight of those in opposition to the siting.

Analysis of the data available in both primary and secondary sources revealed some predictable and some not so predictable results. As mentioned, there are two variables upon which the NIMBY explanation depends. The first is geographic proximity to the LULU. This particular dimension can be identified readily in both the primary and secondary literature. Most of those interviewed were able to identify the spatial aspect of the LULU to that of

"a kilometer,"

"it's on our doorstep,"

"about two point five kilometers,"

"literally down the road from me,"

and "twenty minutes in a car so, about twenty kilometers."

All those participants interviewed lived within approximately twenty kilometers of the proposed LULU.

Secondary research supported the spatial consideration of the NIMBY explanation in many ways. The opposition group in this case is named after the county in which the LULU is proposed. Several interviewees referred to the proximity of the LULU including

"But if we work together we can beat the dump and find a logical place to put it rather than where we live" (Madirishninja, 2012);

"The proposed site borders Ingersoll and the South-West Oxford township communities of Centerville and Beachville" (Rivers, 2012);

and the aerial views commonly published as documented in Figures 23 and 24 below.

Figure 23 Spatial aspect of LULU (Stacey, 2016)

Figure 24 Spatial aspect of LULU (Thomson, 2012)

The spatial variable integral to the NIMBY explanation is therefore evident and profound. Both the secondary and primary research support that the opposition group is in close proximity to the proposed LULU. What is not so apparent though is that the second and conditional variable, the need for this LULU somewhere, is present in the data. Certainly, the primary data does not support the existence of this variable at all. Statements such as the following do not support this variable and to the contrary are more in support of a NIABY explanation than the selfish and elitist NIMBY explanation:

> *"I'm going to answer that in two ways. When I first joined, I would have said ten kilometers. Presently, I would say it wouldn't matter how distant because now that we have done all of our research, we've entertained alternatives, we've looked at best practices worldwide."*

"I think I would have to be outside of Oxford County. I actually… it's been an evolution in my own mind about landfill anywhere. I'm not in favour of landfills anymore. I think there are other technologies out there that would definitely support what we do with our garbage."

"There's no answer to that question because I would oppose it on principle no matter where, and this is one of those things that was a coalition initiative right off the bat and I agree fully with."

"I suppose it's a matter of degree. As long as I'm anywhere where it's affecting the ground water, I'm sure I would feel in opposition to it especially since I grew up in the area."

Only one participant in this survey alluded to proximity as being "more of an abstract concept" if they weren't a member of a neighboring community.

Secondary research unveiled similar sentiments. A video of a meeting in this community made public the speakers' perspective on the situation:

"It's not your job to save the world at this point. And I'm not a proponent of Nimbyism. If it's a proposal that was safe and it's your garbage, and you had to put it someplace well, ok we'd all be upset, but you are being asked to take on the risk of other communities that you have no relationship with whatsoever. And what it means to your community is what are your land values and what is the future of your properties, and I want to say this in a, not a narrow, what is my property value way, but, what happens in 1000 years?" (Oxford Coalition for Social Justice, 2014).

Many other incidents of a similar nature are available to the researcher and are detailed in the next section regarding NIABY—Not In Anyone's Back Yard.

4.1.4.7.2   *NIABY*

Not In Anyone's Back Yard (NIABY) is an explanation that has at its essence a focus on dealing with the impetus for LULUs at their source, as opposed to dealing with government or industry solutions that occur at the post-consumer stage in the waste stream. In the case of landfill siting, NIABYists are those who believe that through reduction, recycling, responsible packaging, reusing, and repurposing products in the waste stream, landfills can be made obsolete. NIABYists, it is claimed, also have their motivations tied to consequentialism and the behaviours that will protect future and even yet unborn generations. In addition, the NIABY explanation, it is thought, is further detailed in its dependence on the theory of reflexive modernization (Beck et al., 2003). This theory claims that humans live in a period of risk and risk mitigation and that there is a ubiquitous and monolithic mistrust of government, science, and industry in general.

It would be surprising, given the volume of research that has been carried out related to the subject of NIABYism, to not find any evidence of the explanation in the data collected at both the primary and secondary levels of observation. Such is the case in this research. Certainly, the secondary research supports the notion that future generations' well-being is considered at some point in the formation of the opposition group. The following two statements reflect this belief:

"If you do not want this mega landfill of approximately 17 million tons of garbage

in your county then you need to tell Walker and the MOE exactly why you do not

want this landfill here, now—and as the legacy we leave for our children and grandchildren to deal with." (Crellin, 2012a, p. 1)

"Needless to say, housing prices appreciated and our economy became more sustainable. Looking back, our economic future really depended on asserting our rights as a community for full rehabilitation versus dumps and abandoned quarry sites. I'm so glad we realized that stopping the dump wasn't good enough! So glad we realized that we were fighting FOR something, not just against something. Now my grandkids have jobs, safe food and water, and a future. Reclaiming our resources, reimagining our future—now that's the gift that keeps on giving." (OPAL Alliance, 2015, p. 2)

These statements support concern for future generations as expressed in the primary data, such as the following:

"Interesting question and I know somebody faced with that question who has done so with a young child and just moved out of the community said, "I'm not risking my kid."

"But you know water and our environment and our children's future and you know behaving responsibly, responsible consumption, responsible living I mean those are things that we can all agree on regardless of your faith base or your culture, age that kind of thing."

"I absolutely fear for the future, both in the short term and in the long term. I'm horrified by the consequences of putting some massive project like this on top of an aquifer where we all get our drinking water from. Deep down I'm convinced

that this would be a problem someday. That nothing can stop these toxins from

getting into the drinking water even if it's after my lifetime."

The data also supports the general perspective that landfills are not acceptable in any backyard. As was seen in this research earlier when exploring the NIMBY explanation, while there is some evidence of proximity having an initial explanatory value, the idea of not in anyone's backyard evolves within the group and becomes a major thrust of the perspective of the opposition group. This phenomenon tends to dispel the NIMBY explanation because of its lack of adherence to the variable that states a need for the LULU somewhere - NIMBY and supports the explanation that opposition is based on a NIABY explanation.

Statements in the primary data such as the following fully support this aspect or variable explaining the NIABY theory:

"Presently, I would say it wouldn't matter how distant because now that we have done all our research, we've entertained alternatives, we've looked at best practices that happened worldwide. We're finding out that the Ontario Government's handling of waste practices is so intensely archaic, that it needs changing from the get go right from the entire concept. And that's been…now that Opal has evolved into a far more research and cerebral type of entity over the last couple years."

"There are things that we should be doing with packaging that would reduce the amount of garbage that we toss away become a very much throw-away society

so what we are throw-away society and we need to have technologies to do that.

But what we need to do is we need to challenge the waste handling companies to come up with better ideas and handling our trash rather than buying big holes and then filling them up with garbage."

"There's no answer to that question because I would oppose it on principle no matter where, and this is one of the things that was a coalition initiative right of the bat and I agree fully with. When we went to the government with a petition, the petition that was written by the coalition which was basically rolled out simultaneously with one that went out from Opal. The coalition one said, "No dumps like that anywhere done to anyone," because the dump proposal is one that is environmentally destructive no matter where it is and has impact on lots of people."

Of interest to this research is that every participant interviewed shared a common perspective: that landfills were not a viable option to be used anywhere. The secondary data collected corroborated this perspective. Some examples are as follow:

"We (OPAL) also believe that it is time for the Provincial Government to become progressive about waste management strategies. Landfilling is not sustainable and we can't keep throwing trash into holes in the ground and expect that it's not going to affect people. We've already seen examples from around the province where leaking landfills have had detrimental consequences."

(Dumpthedumpnow, 2013)

"The problem is, it is the old NIMBY rearing its head again (not in my backyard).

The problem is, everywhere is someone's backyard." (railpast, n.d.)

"I'm not in favour of using landfill to address our garbage problem. I've said it

before and I'll say it again, human beings are the only species that actually

manufacture waste. They create products that are not part of a natural lifecycle

of the planet. We have the ability and I believe the responsibility to be a waste-

free and garbage-free society. We've chosen not to be." (Oxford Coalition for

Social Justice, n.d.-b)

Of particular note (and explained at length later in the research) is the reference

in the data to the arrival at the NIABY perspective being that of an evolutionary process.

The process seems to evolve through an intellectual pursuit of detail and the

underpinning philosophy of why, where, and how landfills are and have come to be. The

participants do not seem to carry this perspective (in most cases) as part of their

repertoire initially, but rather develop this perspective or reality through

intellectualization both intergroup and on an individual basis—primarily through

conversation.

We see in the literature that reflexive modernization provides some dependent

variables for the NIABY explanation. Reflexive modernization is comprised of several

aspects, not the least of which are equity, trust, risk and participation. The researcher

will discuss each of these aspects individually and then synthesize them in an effort to

draw a conclusion regarding the patterns in the data and the viability of them as

contributing to the existence of the NIABY explanation as valid.

The first aspect of the theory of reflexive modernization is the prominence that equity or fairness takes in the psychological repertoire of the community opposition group members. Certainly, in this research there is a remarkable body of evidence that fairness and/or equity figure prominently within the secondary and primary data. Statements supporting this claim from some of the secondary data sources are as follows:

"It's a situation that, despite political and geographical differences, hits awfully close to home as we contemplate the possibility of taking on the burden of Ontario's, and particularly Toronto's, trash." (OPAL Alliance, 2015b, p. 1)

"So why are Oxford County residents having to fight a dump for someone else's trash when we've been promised a recreational quality greenspace on that property?" (Dumpthedumpnow, 2013)

"850,000 tons of industrial garbage would be dumped here annually. The trash would be mainly coming from the greater Toronto area and it would become the largest landfill in the province." (Guan, 2014)

The primary data further support the concept of equity as a major aspect of the conscious activity within the psychological repertoires of the opposition group members. Although not a comprehensive list of the occurrence of this concept in the data, a few examples follow:

"Number one, you got somebody with the deepest pockets in the world going up against somebody that's trying to finance something on the backs of bake sales and garage sales. That's a huge inequity."

"No, not just say were going to discourage a landfill. No, you can't have landfill in Oxford County. We're not going to be receptacle for another community's problem."

"Actually, I've done a certain amount of research on this, and I know where we're going. So, deals, present tense, the answer is yes, we're among the top in municipalities in terms of diversion. In terms of the percentage of diversion, in terms of what we identify as materials that should and could be diverted. So, the answer is yes, and I'm also aware that we're looking to become a zero-waste community. So, Carly Simon would sing Nobody Does It Better, I'm sure there are communities that do somewhat better but we're working on it working on it really hard. So, my answer is that our community is has been for a long time very engaged in the process of reducing landfill and other kinds of waste. And I don't think it's appropriate that the reward for that effort is to have to deal with somebody else's waste."

Of particular interest is that the variable of equity took on multiple points of focus. These points included the fair treatment of the community in having to deal with other communities' garbage, the fairness of the process to not appropriately include participation, and a channel of influence to the community and the apparent inequity of the community not being able to influence on an equal footing based on their capability to fund their opposition against a corporation with deep pockets. The monolithic presence of the variable of equity supports the NIABY explanation thoroughly. This leads

to and is closely related to the variable of participation, evidence of which is found in the primary and secondary literature.

Evidence of the variable appears in the secondary data as follows:

"While industry will always be able to pay for experts, local residents should be allowed to express their values, to challenge the experts and ask hard questions. Unfortunately, it would appear the MOECC does not value this type of discourse. Despite repeated requests and over 43,000 letters of concern, we continue to wonder if our collective voice is really being heard and understood. Are we to be a voice howling in the wilderness, Mr. Murray?" (OPAL Alliance, 2015, p. 2)

"That the public has not been facilitated and actually turned away from what are supposed to be open and transparent meetings and also that we on the committee have been denied access to documents that we had been told that we could have. I am sorry to report that the EA process with regards to this application has been corrupted and that there should be grievous concern by the public regarding this proposal." (Farlow, 2013, p. 1)

"That neither the members of the CLC or any of the rest of the public have unrestricted access to the only source of accurate records of the CLC meetings (which is the audio recordings of the meetings)" (Farlow, 2013, p. 1).

Support of this variable in the primary literature is prolific and is expressed here as follows:

"Yes, I can. I don't think they listen to our concerns at all. I think they have... okay I've got to qualify that. If I have a concern and I walk up to their door and I... they

will listen to it, they will hear it but will it make them change anything? No. Do I believe they have somebody listening in social circles, letters, and social media to see what were up to as far as a defense? I do strongly believe they listen to that."

"The most appropriate community to approach would have been those indigenous communities in the Thames River watershed or as they refer to the Antler River... river watershed as far as I can tell they have not been consulted at all so in that case I would say no that's not acceptable and in terms of the non-indigenous community, a settler community of Oxford County. I'd say it has been things like the community, liaison committee and all these kinds of things actually have been diversionary, deceitful not in good faith than actually at the end of the day very divisive for the community and that it makes it look like they're being consulted when really they're not."

"It doesn't really matter what sort of recommendations the CLC comes up with and how much work they do. As a matter of fact, in my view it's just the way of getting the community to generate information that the corporation, the proponent, will then use against the community so it's actually dangerous to engage them 'cause you're giving them information that they will use against you."

The data available that supports the participation variable is also closely linked to a feeling that engagement with the proponent might now be a knowledge source for the business to use against the opposition group to further their cause. The data collected regarding participation was sampled, of course, at an evolved time in the LULU process

when a great deal of discourse and experience has taken place regarding the reality of the situation by the opposition group members. In other words, lack of initial participation opportunity of a meaningful nature (i.e. one that truly influences and allows empowerment of the community) appears to develop into a fear of engagement and an insular conversation among members that suggests participation is seen as a possible weakness and threat to the opposition group's cause. This near-paranoid condition is closely related to the variable of trust and its derivatives.

Trust is an integral aspect of the theory of reflexive modernization and, as mentioned previously, is discussed at length in the literature and cannot be covered comprehensively in this research. However, the variable is explored in this research, as it plays an important role in the formation and evolution of this community opposition group. The variable of trust has been disaggregated into three categories of observation/analysis in this research: trust and government, trust and industry, and trust and science. What follows is an exploration of the data regarding all the preceding categories of trust.

Evidence of data concerned with trust and government is found in the secondary data as follows:

"So many local elected officials are worthy of mention. As a group, they listen very closely to community concerns and take action on many fronts. The Community Sustainability Plan includes a strong Zero Waste goal." (OPAL Alliance, 2015, p. 3)

"While industry will always be able to pay for experts, local residents should be allowed to express their values, to challenge the experts and ask hard questions. Unfortunately, it would appear the MOECC does not value this type of discourse. Despite repeated requests and over 43,000 letters of concern, we continue to wonder if our collective voice is really being heard and understood. Are we to be a voice howling in the wilderness, Mr. Murray?" (OPAL Alliance, 2015, p. 1)

Further evidence of the trust variable and government can be seen in Figure 24 below.

The Proponents	The Fight to Stop the Dump: Action, Reaction, Inaction	
	Locals	Ministry of the Environment
Walker Industries' Joe Ling scouts around Oxford County looking for acceptance of the dump before the process is initiated	Pat Sobeski, then mayor of Woodstock, hears the offer	Makes no decision
Walker announces their dump proposal	Jeremy Richardson and Ben Lampkin convene a meeting in Colombo Hall, Hundreds attend. OPAL is formed, March 2012. Green Watch and the Oxford Coalition for Social Justice immediately join in.	Makes no decision
Walker begins the Community Liaison Committee, May 2013	Community members join in the discussion, seek answers, demand that the minutes more accurately record the questions of those present	Makes no decision (though Ministry staff does require a more open CLC process)
Walker begin the terms of Reference, submitting it in august 2013	OPAL's research committee compiles and shares mountains of information with the MOE and the public	Makes no decision (thought he staff write numerous reports about the failings of the terms of Reference including March 2014)
walker gets a time out to revise the Terms of Reference in March 2014; amended April 2014; 2nd time out Nov. 2014	OPAL begins the letter-writing process which sees over 44,500 letters from across Ontario opposed to the dump; petitions sent to |Queens Park	Makes no decision (though various staff write answers to some letters)
Carmeuse's Baron R. Collinet does not reply to invitations to visit oxford County	A massive rally, April 2012, opposes the dump plan	Makes no decision
Carmeuse's environmental manager at head office denies knowing where Oxford is	OPAL sages multiple conferences with Maude Barlow of the Council of Canadians, Charlie Angus from Adam's mine fight, George Henry of the Chippewa**.** coalition conference, May 1 & 2, 2015 invites the minister	Makes no decision. does not attend (though staff sends an email 5:12 PM the day of the conference opening saying he is too busy to attend)
Carmeuse Lime denies responsibility for the dump proposal repeatedly	Mayor Ted Comiskey, deputy Mayor Fred freeman and CAO Wm Tiger fly to Belgium to meet Carmeuse's owner and CEO in Feb. 2015	Makes no decision
Carmeuse scrambles security at each appearance of anti-dump sign-waivers on public property near their gates (ongoing)	Cows visit Queens Park, along with Deputy Warden Ted Comiskey, OPAL and other members - September 215	Does not attend the daily session of the Legislature with no explanation. Does not speak to the visitors.
What next?	Ryerson University Film Studies crew edits footage for screening soon	Decide no?

Figure 25 Example of trust in provincial government as adapted from OPAL Alliance, 2015b, p. 2

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Triangulation using primary data is evidenced in the following statements:

"At first we had misgivings about some of our local politicians whether they were looking at it as if it was a cash cow. But since the last round of elections I think we've got most of that out of the way. But if that goes on too long then we've got to go through another election and do it all over again."

"Now federally, if I can go there, I don't think our federal representative has done enough like I don't know why he's been so quiet on it. There are issues that related to the federal government. They set the standards for water quality. How he is and being how Mr. McKenzie doesn't involve himself in that process is beyond me. Now, we have a new government in place, we seemed to have a very approachable Minister of the Environment from a federal level and is very open to change and very conscious of community and we have a Prime Minister who is very concerned of our rural concerns, which this is concerned of in our rural community, so they are all of that."

"The political side of it when you [inaudible 00:41:40] they have at your level of trust the government. The government… I think the government should be doing a lot more than what they're doing right now and I think that they should be listening to their community a lot more than what they do and as far as the citizenry I think it would stay the course of what they're doing and act independent from the company, act independent from the municipal and the provincial government, maintain that autonomy."

"There's one issue of somebody who was actually on entirely the other side of the battle as regarded the head waters at the Burgess Park and Standard Tube, and I thought, 'Oh, she's going to be on side with the dump proponent.' Nope, dead set against it. So, my trust there has grown, my knowledge of the officials the employees of the municipalities, and I'm talking about townships and the county has expanded significantly, I'd not had a lot to do with them, and I've come to understand even more that when there's a perception of political will that those people would expend great amounts of energy beyond their working day to make sure that all the right information is present for the public and the politicians. So, I have great respect for them at the municipal level, our officials."

We see in the data, both primary and secondary, that trust/mistrust in government does not seem to be monolithic but rather seems to hinge on the perceived support of the opposition group or of the proponent. Government at the local level in general was trusted (although in some cases not initially) when they began to publicly oppose the landfill proposal. Government at the provincial level is regarded as not being fully supportive and relying too much on the process of current legislation—of which they are in possession—and not pursuing a representation of the constituents in a fair manner. This is in opposition though to one local Provincial representative who was seen as being supportive and therefore trusted. At the federal level of government, the representative locally was seen as not trusted because of his lack of willingness to participate and yet the federal Minister of the Environment and Sustainability was seen to be somewhat trusted because of a perceived perspective of support toward

opposition. This is not in particular support of a monolithic attitude of mistrust or lack of trust in government. There is a similar phenomenon found at least in the primary data regarding the level of trust in industry.

Examples of trust in industry can be witnessed in the secondary data in the following manner:

"Can modern waste management companies GUARANTEE 100% SAFETY for our drinking water? Based on the above, the answer is 'unfortunately, no.' Is this good enough? Does the risk outweigh the benefits to the rest of Ontario, the MOE, and waste management corporations, looking for that easily accessible location to dump Ontario's ever expanding waste? Ingersoll's Mayor Ted Comiskey regularly asks, 'Why risk it?' (OPAL Alliance, 2015b)

"A provincial process that puts the landfill proponent at the helm has discouraged the people that live in our communities. Ontario's own code of practice for environmental assessments tells us the process is proponent driven (makes quotation marks in air with fingers on raised right hand) and that's been evident by the amount of work that our committee OPAL and all of our volunteers have had to do to engage the public in a process that Walker would rather most of us sit out." (Dumpthedumpnow, 2013)

"Carmeuse Lime originally promised to turn the quarry into a greenspace. Now they will be landlord to Walker Industries' proposed landfill." (Guan, 2014)

Generally, the secondary data demonstrates statements of position and predictable behaviour on the behalf of opposition group members regarding industry

and this is one of lack of trust or at least of trust in the predictable nature of profit motive being the driver of industrial behaviour. The primary data supports this quality of trust and provides further detailed insight into the opposition groups' members' perspectives on trust and industry. Some interesting examples follow:

"I don't have any level of trust in the company. I totally believe they're going to do exactly what they say they're going to do. The trouble is, is they're using our government and present rule structure to do... to accomplish it and that isn't sufficient anymore in this day and age."

"You know I can be quite honest with you. I don't think they've done anything like, I don't think that they've done anything wrong as far as proposing this. I just... I think that they... what they needed to do is explore other areas and other options available to them like... I hate the... maybe by getting rid of waste, by burning it or plasma burning... or other technology to get rid of it. The problem is that they're not willing to spend enough capital on something like that because they can't see... they don't realize the money or the rate of return that they would get out of it. They are a business, right? And they have that freedom to operate like that."

"Well, I didn't have a lot of trust for them in the first place, because I didn't know them and you tend to trust the people that you know. That trust has consistently diminished from a pretty low level. Anyways, as I look at the shoddiness of their documents which purport to cover the necessary science around the dump, as I look at the reports from the community liaison committee—I didn't sit on it but

I've read much of them and I've heard from several members who feel the community liaison committee was a brutal process for them and was disrespectful to them. How can you respect somebody who plans to destroy the value of the community that you live in? So, no I have no respect for them, but had started with not a whole lot anyway."

The data provides an interesting insight into the perspective of the opposition group members. It appears that this perspective ranges from initial mistrust based on the profit motive and its downward pressure on social responsibility practice, to a certain trust that holds the profit motive as one that is legal and predictable for industry to follow. There is also evidence here that suggests a desire to see a more socially responsible solution. This leads the researcher to understand that there is hope, at least among some opposition group members, that industry could be more socially responsible, whether through legislation or through a self-adopted responsibility to alternative behaviour. It is inferred by the researcher that a change of this sort might lead to a development or increase in the level of trust held for industry by the participants in the opposition group. A similar ambiguity is found in the primary and secondary data regarding trust and science.

Of interest to the researcher in the exploration of the trust and science aspect of this variable is the general perspective that science at its essence should be trusted but that science in its presentation should not. The science that should be trusted depends on who is presenting it and it would seem is trusted more if it is prepared third-hand or by the opposition group than the science presented by industry or government. This

perspective appears to add nuance to the monolithic mistrust of science expressed by reflexive modernization.

Examples of this phenomenon are supported in the secondary data in the following manner:

"We think of science and the shuttle, or of any other event that science wasn't aware of at the time. To think that an "O" ring could freeze and crack - science fails." (Oxford Coalition for Social Justice, n.d.-b)

"I didn't fault the proponent's consultants because their job is to make the proponent's proposal look good. That's their job." (Oxford Coalition for Social Justice, n.d.-a)

"No liner ... can keep all liquids out of the ground for all time. Eventually liners will either degrade, tear, or crack and will allow liquids to migrate out of the unit. Some have argued that liners are devices that provide a perpetual seal against any migration from a waste management unit. EPA has concluded that the more reasonable assumption, based on what is known about the pressures placed on liners over time, is that any liner will begin to leak eventually, on average 20 years." (OPAL Alliance, 2015b)

Strong evidence is presented in these statements that the opponents are willing to use science to further their argument, which is interpreted by the researcher as an act of trust in science. However, there is also a perspective theme that science also is fallible, dynamic and subject to the influence of economic pressures: "it's their job."

Further insight and reinforcement of the trust in science interplay can be found in the primary data.

The primary data provides further insight into this interplay and adds to it a nuance not specifically found in the secondary data. The following statements are of interest:

"So, the trust trotted out by the cheap experts that couldn't be trusted was very damaging. They would have been further off to not even bring anybody at all and just say, had a friendly face and said, 'We'll work on it with you' if that makes sense."

"Very strong. In fact, we are spending quite a bit of financial funds on science support, hydrogeologists; I have 2 engineers that I regularly confer with on different subjects. And when I challenge something, I challenge it quite often from a science-based perspective because that's about the only thing that can't be challenged. Now, we do run into some difficulty when dealing with the ministries because the ministries have their own scientists. And quite often, there's a hierarchy of scientific acceptance where…when you get into projections based on a scientific opinion that one group of scientists have a higher standing in the scientific community than the next one and you end up with two scientists, one group being part of the ministry group, one group that's purchased by Walker Industries for proving their case and then you have the ones that we have to hire and we say, 'Okay, excuse me we have to prove different science…' so you got three different levels of science."

"Well, you're talking to an engineer, so I happen to believe very much in science and in data. Now having said that, I think data and science can be skewed, but you got to believe that the science is reliable and what it reports back is accurate. It's what you do with the science after, it's how you engineer around it to make or make that area safe and engineer it, so what I mean by engineering is man-made, so you have a man-made situation going into where you got it's going to be playing with a lot of science and natural science. So, like there are going to be errors. Man makes errors all the time and I got to believe that the science... whatever science comes back within... science is just data points, right?"

"Despite the fact that I'm not a scientist at all, I'm fascinated with physics, which doesn't help me at all in this, cause it's largely chemistry we're dealing with here. But I know there are examples of junk science and you'll take out this name, Dr. [Oz] is a good example on television and that sort of stuff. And I know there's examples of that but in general, when I'm dealing with a scientist, I'm persuaded that they are intelligent, knowledgeable, and ethical individuals. You wouldn't go into science to make a fortune, it doesn't happen. So, those are people are committed to the pursuit of truth, and I believe that's not universally the case but it's as close as you can get to universality."

"I have the utmost faith in Science, its applications. I have for as far as I can tell I could say that Science has been co-opted into the propaganda realm basically through advertising. The average person cannot tell the difference between true Science and a "Sciencey" sounding advertising."

The researcher infers from these statements and others within the primary data that the mistrust for science implied as monolithic within the theory of reflexive modernization in this case is influenced by the perspectives held by the members of the opposition group. Members of the opposition group see science as an objective pursuit of the truth and yet suspect that science may be used in a manner to influence decisions inappropriately, to be influenced itself through economic pressures or to be less than truth and held up as science in a "junk science" or "sciencey" manner intended to deceive. In this sense, it does not appear that there is a monolithic mistrust of science but rather a mistrust of those who might use science to their own end. Once again, this tends to support a general level of paranoia and fear within the repertoire of the opposition group member's psyche.

Reflexive modernization and conversation theories suggest participation as key to the absolution of fear through the empowerment of two parties to overcome the controlling/pathological environment set up by the one-way non-participatory methods of communication. Meaningful dialogue grouped with the ability to influence the outcome of conversations seems paramount to the ethical approach to situations such as LULUs. Naturally, the researcher has delved into the secondary and primary data in an effort to gauge the presence and level of participation for this case study.

The following statements from the secondary data demonstrate the quality of participation:

"Chief R. K. Miskokomon of the Chippewa of the Thames First Nation is rightly respected for his work to protect his people's rights as well as the environment.

Recently, he linked Enbridge's Line 9 and Walker's dump. The pumping of tar-sands oil across the north branch of the Thames is as much a danger as siting tons of garbage alongside the south branch. He has 'grave concerns' about 'its cumulative effects.' Moreover, he says that 'aboriginal consultation rights have not been met by the Crown.' His letter is a 'Request for Cancellation' of the project." (OPAL Alliance, 2015c)

"On the other hand, it can be worrisome if the media monitoring by sophisticated software results in people being singled out for silence, either internally when someone working for the government is told not to voice an opinion as a community member, or when some in a community suddenly find government offices unwilling to talk. We have experienced cases of both. That is why it is so important that recent legislation to protect public participation, Bill 52, be used to remind our provincial government that the opinions of the public should matter to them. That is why access to information continues to be a goal for OPAL in its quest to stop the dump." (OPAL Alliance, 2016)

Of note within the secondary data is an abundant amount of data that calls for participation, but not in the process, rather against the process. This appears to be evolutionary as well beginning with a call to participate in the Environmental Assessment process (Crellin, 2012a) and developing into a call to participate only in the opposition movement (OPAL Alliance, 2016).

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

Aspects of lack of participation in the environmental assessment process in lieu of participation in opposition are predominant in the primary data as well. Evidence of this phenomenon is witnessed through statements such as:

"When it comes to listening to what the public wants as compared to their agenda, I believe they do not listen at all and they stick to their agenda because they have a plan time-wise to beat public objection."

"The most appropriate community to approach would have been those indigenous communities in the Thames River watershed, or as they refer to the Antler River... river watershed. As far as I can tell, they have not been consulted at all. So in that case, I would say no, that's not acceptable. And in terms of the non-indigenous community, a settler community of Oxford County, I'd say it has been things like the community liaison committee and all these kinds of things actually have been diversionary, deceitful, not in good faith then actually at the end of the day very divisive for the community and that it makes it look like they're being consulted when really they're not."

"It doesn't really matter what sort of recommendations the CLC comes up with and how much work they do. As a matter of fact, in my view it's just a way of getting the community to generate information that the corporation, the proponent, will then use against the community, so it's actually dangerous to engage them 'cause you're giving them information that they will use against you."

We see within the primary data that a general perspective of paranoia and fear permeate the responses to participation or even communication with industry or government. The opposition group members are interested in participation but only with themselves and the community that they feel they represent and that a chance for any communication or participation has degraded (at the time of this research) to a level of participation in opposition only. The Community Liaison Council (CLC) that is legislated to embrace the community and give them a platform for interaction and influence is seen to lie on a continuum ranging from ineffective to manipulative and sinister. That fear and paranoia are this profound in the data certainly is evidence of a reaction and creation of a reality that is not conducive to participation, collaboration or understanding. The opposition is structured in the perspective of the members of the opposition group as one of a reaction to a certain threat brought to bear by unfamiliar, powerful, and mysterious stakeholders. Next, the researcher will explore the dimension of risk and the risk society that is central to the theory of reflexive modernization.

As mentioned within the literature review, the theory of reflexive modernization holds that society does not yet exist in a postmodern domain but rather in a state of risk or a risk society. Members of society are faced with the risks created by an industrial society. Following are three observations regarding risks that are integral to the theory of reflexive modernization: the risks faced by modern society are generally created by those who are empowered to control them, the magnitude of the risks is a direct function of the process and relations available in society, and the risk is created primarily through a dependency upon institutions such as government and industry who

are increasingly alien, obscure, and inaccessible to most community members affected

(Beck, 1992; Giddens, 1996).

The secondary research in this case study supports the existence of the subject

of risk. The following excerpts are good examples:

"Chief R. K. Miskokomon of the Chippewa of the Thames First Nation is rightly

respected for his work to protect his people's rights as well as the environment.

Recently, he linked Enbridge's Line 9 and Walker's dump. The pumping of tar-

sands oil across the north branch of the Thames is as much a danger as siting

tons of garbage alongside the south branch. He has 'grave concerns' about 'its

cumulative effects.' Moreover, he says that 'aboriginal consultation rights have

not been met by the Crown.' His letter is a 'Request for Cancellation of the

project." (OPAL Alliance, 2015c)

"Does Minister Murray think the residents of Oxford County are like Chicken

Little, crying 'foul' because we don't want a mega dump in our backyard? While it

is true we don't want leaking garbage, there are much bigger issues at stake—

the health of future generations resulting from contamination of our

environment, our water and air." (OPAL Alliance, 2015e)

"We have one common goal and that is to say, 'No,' to this proposed landfill. We

all believe the risks are too high for our community and it's important to make

sure the persons in charge know our concerns. I think OPAL has accomplished this

and more. It is a strong organization that will continue to grow and I will

continue to support." (OPAL Alliance, 2014)

The preceding secondary evidence of the prevalence of risk as a motivation within the opposition group is further augmented by the primary data. The risk reference is evidenced in the following citations:

"I don't... I spoke to a fellow that used to work at Green Lane, he mentioned that... I don't know if it's true or not but when you look at Thorold, when you look at the various inputs into the village of Thorold, the recycling facilities and all these kinds of stuff, I'm absolutely convinced that Walker will put money into this and that. The question is, at what expense? And we believe our proof of the risk of losing our drinking water can't be bought by building a community center or that type of thing."

"You want one, do you? Okay, so my main point would be the impact it will have on environmental health. You have to understand that we live in the environment and so that will include human health. That would be my main point."

"Absolutely. So, all of the health reasons that relate to the dump in terms of potential for poisoning the water, the potential for particulate matter, and fine particulate matter in the air all are health risks for myself and everybody else in the community."

While all the preceding data matches well with the concept of risk and a risk society as described in the theory of reflexive modernization, the researcher notes the following as evidence of a further nuance within the variable of risk. What has emerged is a sense of the threat to normalcy that is posed by the prospect of this particular LULU.

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

The following citations are excerpts from the secondary data that support a furtherance or extension of the risk theme to a threat to normalcy:

"My question to you is what is worse: Being sick of hearing about the dump? Or potentially being sick because the dump is here? If you speak up and help stop this proposal in its tracks you will no longer have to hear about the dump, and eventually this proposal will be like a bad dream that fades in your memory. If you don't get involved in the EA there is more potential for you to wake up every day and be reminded of the dump because you can see it, smell it, or hear it." (Suzanne Crellin, 2012a)

"Just so you know—it'll be Canada's 4th largest landfill. Taking industrial, commercial, and municipal trash from all over the province, and putting it in the place we call home." (Sarah Crellin, 2012)

"This is our home, we live here, we invested in our properties, we work here as farmers, and manufacturers, as employees and business owners, our children go to school here, they play in parks within view and smelling distance of the proposed site. Most importantly, we drink the water, we all share this and the air that we breathe." (Oxford Coalition for Social Justice, 2014)

The theme is predominant in the primary data, as well. While there is a definite link to risk, the dialogue is rife with references to the threat to the community and particularly to the opposition group member's homes. Examples of this are cited as follows:

"If it's home and it affects my home—this is a small town—it's home. If you lived in a larger city you don't have that same feeling of home where you know most of the people in town or something like that. Then there's a degree of anonymity when you live in a larger city; whereas, if you have one high school, if you have a smaller community like I said you refer to it as home as opposed to I live East in the town or something. It's just... it's home and it's where they are protecting."

"I mean I'm not involved with this just because I'm worried about my house. I'm involved in it because I grew up nearby. My grandparents lived here. My parents live here. We have friends and families and neighbors. I mean all these people are going to be affected by this terrible project. So, I guess when I think about other people with that a sense of community, it's just thinking about people as a whole that are in your neighborhood. I guess I haven't thought about that in detail before but on the spot that's what I think."

"We are just devastated. We're destroyed in terms of how we water crops, how we feed livestock, I mean this is a rural community so that's just as important too, and how we feed our town, how we water our town and grow our vegetables and everything, everything. We are completely screwed basically. To use a very blunt term, we... it would just be something that would annihilate us as a town if that happened. And that is a risk that is not worth taking, it's not... it's just... it can't be done."

"I totally feel they're in the right as well. Well, I feel the same way about my home, my town, my water. I want to know which side the police are going to fall

on. Are they going to arrest me for trying to protect my home and my water or

are they going to arrest the people that are trying to pollute the water? And with

or without the provincial government's blessing? There's the conundrum. So, if

the provincial government allows it to go forward, they're just as big a crook as

the people that actually polluted. The trouble is, you can't fight them."

The researcher posits that the reaction to this issue supersedes the simple explanation afforded by risk mitigation. What can be derived from this data is that the participants in the opposition group are in a state of fear that stems from the threat to their homes and their heritage – a threat to the normal way that they have been living for generations in some cases – a threat to their ontological security.

4.1.4.7.3   *Pathology of Conversation*

The preceding literature review alludes to the generation of fear and misunderstanding being a function of poor or incomplete communication/conversation. Glanville (2001) suggests that trust is the antidote of fear; however, trust requires a leap of faith on the part of the trusting participant in the act of trusting. Conversation theory suggests that the pristine domain in which trust may be established is that of the controlled and controller exchanging roles through meaningful dialogue while negotiating an agreement of a reality including the agreement to disagree. "It"-based communication where no avenue for feedback-based control is made available to all parties opens the interaction to pathology. It is possible that this pathology will manifest in misunderstanding, mistrust, and reaction. Evidence of "it" based communication and pathology of conversation is noted in the secondary data as a temporal record of events

and the type of events themselves. The first mention of the LULU in the secondary data appears to be an article in a local newspaper: "The process to develop a new landfill site in a mined quarry at Carmeuse Lime's Beachville location is under way" (QMI Agency, 2012, p. 1). The date of the article is March 2, 2012. After this, a similar article appears in the Ingersoll Times published on March 7, 2012 (Vandermeer, 2012), and then an article appears in the Ingersoll Times published on March 9, 2012 (Tapley, 2012) inviting the community to become involved and announcing a public meeting to be held at the Elmhurst Inn on April 4, 2012. Of interest to this research in particular is the mention, in the same article, of a Facebook group having started, titled "Stop the Dump" with 344 members and talk of a protest march being organized (Tapley, 2012). This article also alludes to the unfavourable proximity of the LULU to the surrounding communities and the fear of human error causing an environmental catastrophe, leading the researcher to surmise that in at least some cases the threat to normalcy is an initial motivation for such near-immediate reaction. The presentation of the concept of the LULU is handled through the media with no outlet for feedback or meaningful dialogue. The timeline in the secondary data is extremely short, with an announcement of sorts occurring seven days previous to the first mention of the formation of opposition beginning.

Great insight into this phenomenon can be gleaned through the primary data; some examples follow:

"Yes. Right. It's pretty much that moment that I read that article that was... yeah and I thought I would do it."

"Well, okay. Let's go. I mean that evening that I read about it in the paper I then looked on the website in search of Walker Environmental and something on their website that I believed that described it. Then I know I put something on that on Facebook, saying "have people seen this?" "This is a terrible idea." Then shortly after that, I heard that a guy named, I think it was (name withheld to protect anonymity) was involved in organizing the meeting at the Beachville Colombo hall about people that were concerned. So, I decided to attend that and get the names of some people involved. I thought I had something to offer because I had been involved in some not for profit work. I knew how not for profit was organized."

"I got a phone call… from another member of the Oxford Coalition for Social Justice, who heard the announcement and called me about it. Well, immediately because I believed, and I may be wrong, I believed that in the phone call there was also information about the community meeting that turned into the founding meeting of OPAL. I think that was all part one although it's bit of a wash now four years later but it basically I'd decided that I would engage in this fight and immediately informed everybody else… of the fight."

Of key importance to this research is the manner in which the communication takes place and the staggering immediacy with which the community reacts. With no apparent channel of dialogue back to the corporation and as a function of the way the knowledge is gleaned, i.e. a newspaper article announcement, the community opposition group begins formation. The conversation that is inevitably explained by

conversation theory—the negotiation of a reality—is now one that is among a growing group within the community yet unable to see a clear path toward effecting change other than to organize immediately in opposition to the proposed LULU.

Primary data illustrating of this phenomenon follow:

"And so, when we went to the meeting at the Colombo Hall, which was the first meeting where (names withheld to preserve anonymity) brought their DJ gear, and said, well we don't know what we're doing here, we could play some songs but we really want to talk about this dumb proposal and we're against them. We don't know what else to do. Everybody talked for a while and then at the end some people said, "Let's get together and do this." I and a couple of other members of the coalition went forward with the group that sort of stayed behind after the meeting and said, "Well the coalition is in." We're going to fight as a group and as individuals. So, immediately, would be the short answer."

"Yup, so there was about a week after the announcement there was a lot of concerned citizens who really wanted to do... they were in shock I think and we're not talking like 10 or 12 people here, there was about a room of about 200 people that had gathered at the Colombo Club in Beachville."

"A little history: Beachville's Colombo Hall is the epicenter of this fight. When the dump was first announced,(names withheld to preserve anonymity) rented the hall, sent out notices of the meeting, lugged their sound equipment into the room, hosted a community conversation and admitted they hadn't ever done anything like that before. In fact, most of the people in the room had never found

the need to unite to stop something as destructive as a dump. Out of the crowd of people, a circle formed at the end of the evening to begin the work. Many of them continue to work to save our community as members of various and even multiple groups and clubs."

The meeting that is mentioned in the primary data occurred roughly a week after the first newspaper article regarding the LULU was published. Beyond this initial formation of the opposition group, the primary data reveals that the group organizes its reality quickly and develops a posture of mistrust in any stakeholder that does not support its primary goal of stopping the LULU. Examples of this that can be found in the primary data are as follows:

"I totally believed it, quite honestly. When we walked through the original presentations there was the Mayor, Dave Mayberry, the mayor of Southwest Oxford, Ted Comiskey, the mayor of Ingersoll, myself, Tim Lawson who was a challenger for the position of mayor at the last election and a couple of other guys. And we walk through there and said, 'You know something? This is a slick presentation. These guys are good at what they do; we can see it. If we had to hire somebody to go out and build a landfill we'd probably pick these guys. The trouble is, it's on our door step and the rules that they are following do not fit putting this particular thing on top of our water aquifer. It has to be stopped.'"

"Yes, I can. I don't think they listen to our concerns at all. I think they have... okay I got to qualify that. If I have a concern and I walk up to their door and I... they will listen to it, they will hear it but will it make them change anything? No. Do I

believe they have somebody listening in social circles, letters, and social media to see what we're up to as far as a defense? I do strongly believe they listen to that."

"Well, any communication I've had with them and those would indicate that they don't listen to the concerns. One of the things that they're required to do in the process established by the Ministry of the Environment is to listen to and respond to anybody who has questions. And they systematically ignored us throughout the process from its start, to date."

"Detail? They haven't barred me from their office. Every time I ask to see them, they very politely sit there and smile and nod, and not act on my concerns or my comments at all. As a matter of fact, they probably used them against the community so…."

The participants in this case demonstrate the initial shock or fear generated by the newspaper article. The threat to normalcy is expressed throughout the primary data and provides insight into the motivation for the immediate action. The threat is expressed as one that affects or challenges the stable concepts of community, family, and home. Evidence of this phenomenon manifests in the primary data as follows:

"That's a good question and I talked about it on many occasions with my wife and my family about what we would do if that landfill ever came to be and number one, I've got to protect myself and my family so will I leave the community? To be honest with you I think it would be a 60/40 chance of yes. And that means I have property there, I have real estate there, I have a stake there, I

am a stakeholder within that community and I think I would have to rethink my whole wanting to be there."

"Okay. Well, I guess why did I want to form a group would be I guess another way to phrase that. Well, as a member of this community, obviously, I have an interest in this community and making sure that it's safe, and making sure that the place I would want to raise my children. And I have family history here, so you know my past... the past of this place matters to me as well as the future and this is something that I perceived as being an area of concern, just off the bat, I mean I'm sure that anyone could think of some concerns they might have around a large landfill operation wanting to move into their local area."

"Well I guess you have to understand I grew up in Beachville and my family lived in Beachville for multiple generations. So, I'm very familiar with the history of the quarry etc. I know when I was little, somebody had a proposal to put some slag from metal operations in Hampton, I believe it was in a quarry, and that got blocked. I knew a little about how inadvisable it was to put something on limestone based on the quarry and our water supplies. So, I knew that was an issue. My house in Ingersoll is, I think I measured 1.2 or 1.3 kilometers from the border of where the dump is going to be. So, this is something that would kind of impact any of my family's heritage or water supply and my home and it just seems like a bad idea. That's kind of where it's coming from."

As was previously explored in the literature review, pathology of conversation occurs when the processes of conversation depicted in Figure 22, A through G or I

through L, are compromised or unavailable in a communication between two capable entities. Also, as cited previously, the antecedents of the pathologies of conversation are lack of trust, sense of mistrust or fear, and a sense of inequity from those who are being controlled without access to their own mechanisms of control. The secondary and primary data demonstrate the lack of available channels for the controlled entity (namely the community) to access a channel of participation, meaningful dialogue, or any interactive mechanism of control other than to organize immediately in opposition to the originator of the communication. In the case of Figure 22, the B entity demonstrates pathology of mistrust, fear, and immediate organization because of the missing channel of meaningful dialogue/communication at point D and/or F in the model of conversation. The negotiation of a reality toward an agreement shifts from a conversation between A and B of Figure 22 and in this case between A, the industry, and B, the community, to an internal negotiation of a reality held between the members of the community. The break is rapid and certain, and the magnification of risk brought about by this threat to normalcy becomes the conversation and negotiation of the agreement. The community conversation continues to manifest in such a manner that, over the time from the formation of the opposition group in 2012 to the time of these interviews in 2016, there has developed such strong mistrust that any communication with those stakeholders outside of the opposition group conversation—industry representatives, government representatives and non-sponsored scientists, among others—is approached with behaviours and perspectives that range from a deeply paranoid caution to an absolute boycott and refusal.

4.1.5   Discussion

The preceding analysis and pattern matching deserves further discussion. From the interview stage through to coding and analysis to the pattern matching exercise, many insights may be gleaned. This discussion will explore the different aspects of the pattern matching exercise that precedes it and continue to explore some of the emergent themes that play a part in the analysis but do not particularly "fit" the extant patterns.

The initial pattern matching exercise reveals, in this case study, the inadequacy of the NIMBY explanation of why opposition groups form. There is little doubt or surprise that the proximity to the LULU site geographically is an influential aspect of the formation of the opposition group. Most of the participants live within 20 minutes driving time from the proposed LULU site; however, all the participants were of the opinion that landfills should not exist anywhere. While it is possible that this was a perspective arrived at through an evolutionary process of involvement and research or learning, this perspective is not one that has endured and as such limits the NIMBY explanation as useful. The key aspect of the NIMBY explanation is that without the spatial aspect of the siting, the threat to normalcy would not be as profound and immediate. The claim toward an elitist perspective, understanding the need for LULUs but to have them placed elsewhere geographically, gives way to an attitude of alternative means of dealing with the LULU much more in keeping with the NIABY explanation.

There is in the data strong evidence to support many of the aspects constituting the NIABY explanation. There is strong evidence for the attitude that landfill is an archaic and unnecessary means for dealing with the waste generated by society. Alternative means ranging from incineration to supply chain measures reducing or eliminating packaging through recycling and repurposing are found in the primary and secondary data. This is certainly a main thrust of the NIABY explanation. It does, however, seem to be something of an evolutionary perspective and not every participant was of this mindset at the outset of their opposition. This nuance would not lead one to believe that this is the impetus for opposition group formation. There is certainly a strong acknowledgement of risk, which plays well into the concept of reflexive modernization. As well, the theme of equity is profound throughout the primary and secondary data. Of special interest, and taking into account the emergent theme of moral hazard, is the combination of these two aspects, risk and equity, and how they dovetail to produce this theme. Beck (1992) and Giddens (1991, 1996) both describe the risk society as typified not by the acute risks common in earlier times (disease, workplace safety, infant mortality, etc.) but rather of risks that are more readily being taken by those who are alien to the people and situations that will bear the costs of the risks. It is not a great intellectual stretch for one to observe the distinct parallels of the underpinnings of reflexive modernization with the economic phenomenon of moral hazard. This aspect, while not always clearly delineated within the explanation of NIABY, seems to come into play within this research. The researcher maintains that this is a strong focal point that will be discussed later.

Moral hazard can also be linked to trust, which is another predominant aspect of reflexive modernization and as such part of the NIABY explanation. The literature in this case and as a function of homogenizing the NIABY explanation tends toward a monolithic mistrust within society of science, industry, and government. What the research in this case suggests is that there is something else at play. The trust lent to industry is one of predictability that industry will follow a profit motive and can be neither trusted nor mistrusted beyond this predictability. The implication here, it would seem, is that legislation would be the only means by which an industry might be expected to behave in an alternative manner. There is some evidence within the data to suggest that the businesses in this case might be trusted more should they be forthright and operate in a socially responsible manner. However, at the time of this data collection, the perspective of opposition was paramount in the data provided by the participants. The reaction to oppose had been taken and the amplification of the resistance was such that no concessions to collaborate would be considered by the opposition group. Trust in this case was dealt to those who were in favour of or seen to be helping with their cause. This is in contradiction somewhat to the general monolithic mistrust that underpins the NIABY/reflexive modernization explanation.

The dimension of participation is important but real participation did not happen in this case. Rather, the lack of participation can be noted readily in the primary and secondary data. This aligns with the NIABY explanation and is integral to the theory of reflexive modernization. It also plays a heavy role in conversation theory and pathology of conversation.

There is strong evidence within the primary and secondary data for the pathologies of conversation explanation. The secondary data in this case is used primarily to corroborate and illustrate the rapid time line from the announcement of the LULU proposal to the reaction of the community to form the opposition group. The method of communication taken by the corporation proposing the LULU was a newspaper article announcing the plan. No provision was made for feedback, dialogue, participation, or empowerment other than for the community to embrace their democratic right to assemble and organize in the face of an alien entity threatening their collective and individual normalcy. In short, the match between the data and the pathologies of conversation explanation is profound enough to allow the researcher to suggest that the method of communication and its surrounding effects are the impetus for the opposition groups.

While, in this research, the theory of reflexive modernization and its underpinning dimension of trust concerning the NIABY explanation may not fully pattern match the data, in the researcher's opinion, the modernity explanation of Beck (1992) and Giddens (1991, 1996) is validated. Modernity, according to these authors, brings with it a societal phenomenon of ontological security. This security can be seen as pivotal around the concept of on-going being and of not being. In other words, a threat to the ontological security—the threat to normalcy—that is inherent in modern society is tantamount to the threat of not being. Without a reasonable and deliberate channel for feedback from the community to the originator of the LULU, a void of existential anxiety is created, which in this case is filled with swift and deliberate action to organize

and oppose. Although the researcher will expound upon this further in this thesis, it is probable that this faceless and alien threat produces, in light of the existence and as a result of the threat to collective ontological security, a reaction of the organization of opposition.

4.1.6   Conclusions

Within the rural and small community geographic area of Oxford County in South Western Ontario, a landfill site was announced, and immediately an opposition group formed. Research into the "why" question of this formation stemmed from a collection of primary interview data and secondary document data, a subsequent analysis and pattern matching of the data and a case study that precedes this conclusion. Of note in this research is how the timeline of the formation of the group occurs and how this reflects somewhat poorly on the extant explanations for opposition group formation. NIMBY would suggest that community members arrive at the prospect of a LULU with a predisposed opinion that while LULUs are necessary, they are not acceptable in their backyards. This explanation is vehemently opposed in the data by the prospect held by all participants that LULUs (at least landfills) should not exist at all – a NIABY perspective.

The NIABY explanation, while close in pattern to the data collected, does fall short of an irrefutable match. The data reveals a temporal aspect that is characteristic of the opposition group, which strongly supports that the NIABY perspective is one that evolves within the conceptual repertoire of the opposition group members. Also, the

dimension of trust that is incorporated in the theory of reflexive modernization does not turn out to be monolithic within the membership of the opposition group. Rather, trust seems to be dealt out to those stakeholders that support opposition and is not particularly confined to government, science, or industry as a whole.

Dimensions of NIABY that are present in the data are those of participation or lack of avenues thereof for the community, the concept of equity, and that of risk. These dimensions all interplay with reflexive modernization and to some extent with the emergent theme of moral hazard. This evidence is not, however, strong enough to push the NIABY explanation forward as a match regarding its explanatory capabilities.

The most viable explanation in this case is that of the pathologies of conversation. The temporal theme, moral hazard, and the threat to normalcy all intermingle in an insightful and revelatory manner with the primary and secondary data to match this pattern strongly.

The time from the announcement of the landfill proposal to the organization of an opposition group is astoundingly quick. Within a few days, the opposition group has formed. The announcement, which is both faceless and foreign, allows for no opportunity for feedback, dialogue, participation, or empowerment for members affected acutely by the LULU. As presented earlier in the discussion, the reaction of community members to organize something that they had never before been motivated toward in such a short manner is likely only explained by an existential anxiety—a threat to normalcy or ontological security. The data is strongly supportive of this explanation.

In addition to this quick reaction, the data reveal a very strong sense of fear and paranoia expressed by the members of the opposition group. This phenomenon further supports the preceding existential motivation for community members to organize.

An annotated bibliography has been included in Appendix C to allow the reader to know what documents might be relevant for further inquiry.

4.2   Case Study Report 2

4.2.1   Introduction

This case study focuses on the Carp Rd. landfill expansion near Ottawa, Ontario. Both secondary and primary data were collected, transcribed, coded and analyzed. The analysis involved a pattern matching exercise which compared or sought evidence for the three explanations for opposition group formation: NIMBY, NIABY, and pathologies of conversation. In addition to the pattern matching exercise, the analysis also included a process for identifying novel themes within the data. It was discovered that moral hazard and a phenomenon that the researcher describes as a threat to normalcy emerged.

The case concludes with the suggestion that NIMBY is not a well-supported explanation in the data analysis. The critical component of the need for landfills somewhere is not strongly supported and with the consideration of the nuances of the situation is not present at all. NIABY is a closer explanation but does not explain the initiating impetus well nor is it fully supported by several aspects such as monolithic mistrust of government or science.

Pathologies of conversation may be the best explanation of the phenomenon. The pathology specifically is one that plays on the ontological security of the opposition group members. The call to action is remarkably quick after the message is released in a manner that does not allow for a vehicle of meaningful dialogue.

4.2.2 Context of Data Collection

This case situation occurs in the province of Ontario, on the western rural outskirts of Ottawa in the once-named township of West Carleton. The first occurrence of media coverage of the proposed landfill appears to be in April 2010 (CBC News Ottawa, 2010). The participants corroborated that the initial method of engagement was through the media in statements such as:

"We learned about the expansion in a very nondescript advertisement in the weekly newspaper and I think it was posted in the one that services our area, the West Carleton Review where I can't remember what it was called at the time and then the Stitsville News, which was the weekly version for the community of Stitsville. And then that's how we became aware of the expansion and that's how we all became intimately familiar with the problems with this landfill in our neighborhood."

An aerial depiction of the proposed site can be seen in Figure 26 below.

Figure 26 Carp Rd. Expansion (CBC News Ottawa, 2010)

As of March 2015, the industry stakeholder, Waste Management Inc., has been successful in having their proposal accepted and the City of Ottawa has approved the site and made the appropriate legislative adjustments to lift the holding provision previously prohibiting the landfill expansion (City of Ottawa Agriculture and Rural Affairs Committee, 2015). While the City of Ottawa had some involvement, the provincial government (Liberal) is the key governing authority in this situation, as they are the

governing body to be consulted with for approval of the landfill and most of the legislation falls to the jurisdiction of the provincial government.

Other stakeholders involved include the community at large, federal government (Liberal), community opposition groups, Indigenous Nations, and scientists, among others. While this site is within the jurisdiction of the City of Ottawa, the surrounding communities could be considered small urban or rural in nature where agriculture contributes a high percentage to the GDP of the area. Other economic activity in the area includes manufacturing, construction, tourism, retail, and institutional activities.

4.2.3   Issues Encountered

The primary issue encountered in this case study was the general sense of paranoia that met the request for interviews. This case had developed and the site had been approved by the time the requests for interviews went out. This situation gave rise to some very important insight into the evolution of the opposition groups. Very strong statements of mistrust were expressed about any stakeholder that was not an intimate part of the core opposition group conversation. Statements such as the following extracted from an email exchange were common:

"I understand the objective of your research and agree that if industry embraced your strategies (participation, dialogue and equality) siting a landfill would be more civil. However People in opposition groups do not want the landfill in the first place so even if industry were to work ethically and collaboratively with communities (which is desirable) there would not be agreement."

"It appears that the objective of your research is to gather information that can be used by corporations to facilitate new or expanded landfills. As is evident by some quotes from your paper, "can provide valuable strategic information to those involved in situations of landfill siting" "The end result of field study will contribute greatly to the justification and use of engagement quality as an important corporate strategic tool." "The end result of this research will be to further refine transformational Engagement strategies for siting organizations." Therefore I will not take part in an interview."

"After all, industry wants the landfill and the community does not, end of story. My worry is that if industry uses your research to more successfully sell their project then it will be even harder for community groups to fight a landfill." (H. Moore, personal communication, 2016)

This phenomenon will be explored at length later in this case study but can be cited as the main reason behind a level of non-participation in this case. This did not, however, prevent everyone from participating, and although only one participant was interviewed it was one of two founding members of the COG.

4.2.4   *Data Analysis*

4.2.4.1 Method for Analysis of Documentation

Secondary data was collected from several sources including internet based newspaper articles, videos, newsletters, mailed correspondence, photographs of signage taken within the community, and legislative documentation and statistics

available on-line. The preceding sources were mined and studied by the researcher and uploaded into NVivo software. After the organization of the sources, the sources were analyzed and coded per the planned coding regime mentioned in the methodology section of this thesis. Any emergent themes in the data were added as new nodes in the coding regime.

4.2.4.2 Emergent Themes from Documentation

Again, two themes emerged from the secondary data analysis: the temporal aspect of the reaction to the announcement of the LULU and the implied moral hazard that was interpreted by the opposition group. The secondary data reveals that the opposition group forms almost immediately after the announcement—once again in a local newspaper—this is chronicled in interviews and newspaper articles. This is important, as most research views the opposition group's formation as static and monolithic. What is missed is the near instantaneous reaction of the community toward organization and opposition. The threat to normalcy inspired by the one-way communication of the media announcement is similar to that of the community members being attacked in their homes by a foreign, unfamiliar, and distant adversary.

As mentioned previously in case study one, the theme of moral hazard emerges as a function primarily of the type of initial communication and the unavailable nature of the proponent or government to provide a two-way mutual dialogue. The secondary data reveals statements such as the following which support this understanding of the situation:

"He voiced concerns about building on fractured limestone, echoing the opinion of the hydrogeologist hired by the CCCTE to explore potential environmental repercussions of locating a landfill where WM wants to build. If the liner fails in future decades, says Bossio, leachate contamination could be devastating. 'And then we're the ones stuck with this contamination, not you guys.'" (Balogh, 2012)

This is a perspective that evolves within the opposition group and is closely tied to the theme of equity. The importance of this theme to the analysis of the situation is that it becomes an integral component of the opposition conversation and yet, at least in this case, does not seem to influence the decision-making process.

4.2.4.3 Protocol for Transcription

The transcription protocol did not deviate from that described in the general methodology section.

4.2.4.4 Triangulation of Data

Data triangulation was carried out throughout the analysis and write-up of the thesis and was used to corroborate facts between claims in both the primary and secondary data. Timelines were also clarified and corroborated where possible using this method. In general, the aspects of the different theories were identified and either supported or refuted using this method of evidence identification within both the primary and secondary data for each individual variable of the unique theories/patterns.

4.2.4.5 <u>Coding Procedure and Protocol</u>

Coding was done manually and followed the protocol of four levels as previously detailed in the methodology section of this research. NVivo 11 was used as an organizing tool only and no other analysis tools within NVivo were used save for the word cloud produced and illustrated in Figure 1. As themes emerged from both the secondary and primary data, they were recorded as nodes in NVivo. The final codebook can be found in Appendix B.

4.2.4.6 <u>Emergent Themes from Transcription</u>

A description of the emergent theme "threat to normalcy" can be found in Case One and as such will not be repeated here. This theme, however, is also prominent in the interview data and plays a part of similar importance in the analysis of the phenomenon at hand. One notes the same protection of normalcy and the need for ontological security.

Further exploration of this emergent theme will be presented later in the paper. Suffice it to say that the theme demonstrates a sound explanation for the expedience with which the opposition group forms. A pattern similar to Case One is noted, as is the interrelation of this theme with the theme of mistrust, anxiety, and fear. The pathology is inspired as a function of the method of communication and the lack of a vehicle for dialogue being introduced simultaneously with the initial message—the opening statement.

The themes of moral hazard and the immediacy with which action is taken after first knowledge of the proposed LULU is disseminated are present in this data analysis as

well. The following pattern matching section will provide details of these themes and their presence in the primary and secondary data analysis.

4.2.4.7 <u>Statement of Extant Explanations and Pattern Matching</u>

The extant explanations for opposition group formation are explained and explored in this section of the paper. Both primary and secondary examples, where available, are cited in support or refutation of the specific explanation.

4.2.4.7.1 <u>*NIMBY*</u>

NIMBY is a theory/explanation based on two dependent variables. It is suggested that NIMBYists, while understanding the need for LULUs, express through an arrogant elitist attitude that they are not appropriate near their homes—not in their backyards. The two variables must be present to prove this explanation valid.

The presence of the variable—geographic proximity—is strongly supported in the primary and secondary data. The following citations are examples of the presence of this variable:

"He questioned the format of the meeting, and blamed politicians for not stepping up. 'I was expecting to come here and have our politicians to give us some type of forum to help us give them information on how we want the community run,' he said after the forum. 'As past experience has shown, odour from a new landfill will travel far beyond 500 metres and be a nuisance and trespass to thousands of nearby homeowners. In 2007, odours from the landfill were reported from as far as 8 kilometers from the dump. Truck traffic can

impact road congestion for several kilometers around a landfill. The active landfill will be visible from many locations including Kanata some 5 kilometers away.'" (NoDump.ca, 2012a)

"Instead, they've brought their army of experts to try and sell us on liking the idea of having this dump in our backyard. I'm absolutely shocked." (CBC News Ottawa, 2006)

"Is your home included in Waste Management's (WM) proposed Property Value Protection plan if an expansion of the Carp dump is approved? It might be—but only if you live within 500 metres of the proposed new landfill footprint. That is the range that WM has floated as a possibility. The 500 meters is based on a minimum distance mandated by Provincial Government guidelines. But, 500 meters is woefully inadequate when living beside a mega dump like the Carp Rd. landfill." (NoDump.ca, 2012a)

The primary data reveals a similar support in citations, such as:

"My house is about, well, it's exactly one point two kilometers northwest of the landfill that was there currently."

"Because I don't want to live near a stinky landfill anymore, I mean they haven't broken ground on the new landfill but I know it's coming and you kind of go through this mental dance of, 'Well, do we leave now, do we wait a few years, do we wait 10 years?' You know when they say it supposed to be closed like... so then this is the thought process that go 'I should move' and then I go, 'Then I have to put the house up for sale.' Oh my God, there's already like 4 four or 5 five

houses on my street that are for sale that are not selling. It will take a really long time to sell. I'll probably lose 20 percent or more on the value of my house. I can't even think about that, I'm not moving so that is essentially the thought process that I go through almost every day.'"

The second variable, the need for landfills, although not strongly represented, was also present in this case. The following citations allude to the need for landfills because society has not learned to deal with alternative means of garbage generation:

"Yes, there is a need for landfills because we... even... like the zero waste is an aspiration but until we make a lot of changes with respect to producer responsibility, we're not going to get there yet so regrettably we still... we will need landfills but they need to be sited properly."

"No, we don't because we've been... we're terrible, we've been slow on the up take of encouraging people to reduce the amount of stuff that they sent to the landfill. Secondly the City of Ottawa put all of its future waste management eggs in one basket called Plasco. I don't know if you are familiar with the Plasco story but it was an emerging innovative plasma gasification technology that the city of Ottawa partnered with to get a pilot plant going and essentially, they could never bring it to commercial scale production and plasma or Plasco couldn't get financing for commercial... commercializing its technology and it went under. At the same time, they never looked at anything else. The city of Ottawa never looked at anything else so now I think the City of Ottawa is just going to look at landfill as their option for the future. So, because they were very kind of narrow

in their view of what options might be possible then they kind of missed the boat

on some other opportunities. We have a Green Bin program but the up take on it

is very poor. I think they probably don't invest as much in... as other communities

in term of education so I think there are other communities that do a better job, I

mean I can't say the City of Ottawa isn't trying, they're trying but I think there are

other communities that started sooner and are probably more advanced than we

are."

In this case the researcher cites some acceptance that the second variable in the NIMBY explanation is available. Yet, while certainly there are overtones of a responsible approach to waste much more in keeping with a NIABY explanation, some of the data can be cited as at least alluding to a NIMBY explanation.

The spatial variable integral to the NIMBY explanation is therefore evident and profound. Both the secondary and primary research support that the members of the opposition group are in close proximity to the proposed LULU. What is not so apparent though is that the second and conditional variable, the need for this LULU somewhere, is present in the data. Statements are made regarding the need for landfills somewhere but this is qualified as a shortcoming within society and not as a permanent need.

4.2.4.7.2

4.2.4.7.3   <u>*NIABY*</u>

NIABYists are those who believe that through reduction, recycling, responsible packaging, reusing and repurposing products in the waste stream, landfills can be made

obsolete. NIABYists are consequentialists and exist in a world that is another stage of postindustrial modernity (Beck et al., 2003). The postindustrial modernity suggested as integral to this explanation is one that at its basis thrives on risk mitigation and is rife with mistrust in government, science and industry in general.

Secondary data analysis supports the notion of a NIABYist perspective and can be found in the following citations:

"Both candidates advocate aggressive programs of recycling and diversion. Both favour the use of new technologies to reduce the amount of garbage going to landfills. For Mr. Chasles, that means incineration. Mr. Qadri is less sure, saying he needs more information about incineration's costs and benefits." (Butler, 2010)

"'They can contaminate ground water sources, which are very important for water source for many, many people,' Coun. Marianne Wilkinson said, 'So let's do a system that doesn't even have that possibility.'"

"City staff has set a lofty goal of doubling the amount of organic waste going to the green bin program in three years." (CBC News Ottawa, 2011)*,*

"Nixon said the community is still very much opposed to the landfill, which she called the 'worst environmental option' available for handling waste." (Helmer, 2010)

Analysis of the primary data reveals a similar perspective regarding the support of a NIABYist explanation:

"So, I always had this leaning but what upset me the most was that half or more than half of what I knew was going into that landfill, I knew shouldn't be in there in the first place because it's a commercial landfill so it's industrial and commercial and institutional waste and we quickly learn that there's virtually no diversion in that sector at all. So, right from the get go, all the paper and all the organics going in there, if they were to be diverted like they should be, that's half of that what's going into that landfill immediately removed from that landfill."

"And that I felt was morally wrong like we just... we know better, right, and we would get... we would get the classic answer of 'Well, we have lots of land, why don't we just landfill like there's no reason why we shouldn't be landfill because we have lots of land.' And in my opinion that was like saying 'Well we have lots of water, why don't we just keep putting raw sewage into the lake or into the river because we have lots of water,' Right? It makes no sense. And in the meantime, we learned that the landfill was indeed polluting the ground water so it just... it was just morally wrong in my opinion."

"Because it's just wrong like it's wrong in my backyard and it's wrong in anyone's backyard."

The NIABY explanation is supported in the primary and secondary data without doubt. There is ample evidence of a concern for future generations and of dealing with the issue of waste at its source rather than at its destination—i.e. not in anyone's backyard. However, the nuances of the explanation, including monolithic mistrust of

government, industry, media, and science, equity, participation and risk mitigation, all appear in varying degrees of support or refutation.

The timeframe and perspective of the NIABY explanation occurs through an evolutionary process. Initially, the opposition groups form based on their perspective, which is based on how their normal will be altered. For example,

"So, following that meeting that we had where the city representatives and the waste management representatives that were there was, you know the typical display boards of what the landfill is going to look like and what the proposal is all about it, what they have to do is part of their expansion process. We organized as a community, so a group of people met at my house and then unbeknownst they sent a note to us, there was another group of people meeting on the south side of the highway at another person's house and then the people in Stitsville which is on the south side of the house organized a community meeting at a school in Stitsville and 1200 angry residents showed up to voice their concerns about this proposed landfill expansion."

The researcher suggests that the initial reaction can be seen as one of preservation of the ontological security—also seen in Case One. Then, as the organization evolves and structure begins, research takes place and conclusions are made through this information collection and sharing that landfills should not be necessary anywhere as expressed in this statement:

"Well, what happened was, it was within weeks so within a week of that meeting we had a community meeting at... I think it was at my house, the first was in our

house and we didn't... we weren't aware of NoDump at that point because they were the people that were organizing on the south side of the highway in Stitsville. So what we did was we formed our own little community organization called the Richardson Corridor Community Association and then we also formed another group and I can't remember the name off hand but I can get it to you. We decided that we needed to fight in two forms. So, one was as a community organization to fight the political fight and then the second organization that we founded was going to provide... to do research and provide meaningful evidence and support for alternatives to landfill because we just didn't want to be... well, we don't want the landfill but go put it somewhere else. We wanted to provide alternatives too and I can't remember the name of the organization but I can get that for you."

The NIABYist explanation and perspective is not the initial perspective but rather evolves as a function of the ontogeny of the opposition group(s). The importance of this observation should not be underplayed, as the exercise of this research is to establish what behaviour causes the formation of the groups. The groups do not reasonably arrive at the situation with a fully developed NIABYist perspective.

Equity is another aspect of reflexive modernization, which is said to play a strong role in identifying the presence of a NIABYist explanation. In this case, equity is seen in both the secondary and primary data analysis and manifests in statements such as:

"I was listening to the fact you were talking about 400,000 tons of garbage. I tried to understand what that looks like. First thing I came up with 16 billion

pounds of garbage over 20 years....I guess what I want to know is where is this garbage coming from? It's certainly not local." (Balogh, 2012)

"When the government EA review agency clearly tells you that their job is to issue approvals not reject projects, it is clear that industry already holds all the cards when new and expanded landfills are considered. Community groups work tirelessly in their fight but can only drag out the process unless they have large sums of money and full time legal representation." (Personal Correspondence, 2016)

"Stittsville Coun. Shad Qadri noted that other City of Ottawa recommendations seem to have been ignored. Council wanted improved waste diversion for the industrial, commercial and institutional sector and tighter rules for odour control. It also called for the landfill to accept waste only from Ottawa and Lanark County and for the company to help pay for widening Carp Road. 'I don't hear any of those addressed,' said Qadri. 'I'm very disappointed.'" (Cook, 2013)

The aspect of equity is also echoed in the primary data in this case and is expressed in the statements that follow.

"No, and this goes back to Ontario's environmental assessment process being incredibly broken. The — Why did we lose this site? We lost the site because we have no political power and we had no money. Waste management has political influence and they have lots and lots of money so they just wore us down. How can we possibly compete with that?"

"I think it's like any group of diverse people, there were things that we're agreed upon and things that other people agreed upon and others didn't and I mean I can point to one big area where there was lots of discussion about and that was to pursue a legal path and it was one that we decided not to pursue mostly because we didn't know how we would raise the hundreds of thousands of dollars required to support that."

"Yeah, I think my... the only comment that I would make is that, I think it's a real shame where, you know money and influence end up winning the day as opposed to what the evidence puts forward and what the community is asking for. Like the community was very much sidelined throughout the environmental assessment process and if the government of Ontario put its money where its mouth was, right, the community would be... in the forefront of that process but it was not."

The aspect of equity in this case is predominant and readily present in the data. This prevalence supports the concept of NIABYism as an explanation where other aspects may not. Of interest once again are the multiple points of inequity that are expressed. The money of industry, the power inequity of government over community, and the issue of taking care of others' problems are raised as issues.

The aspect of participation is closely related to equity and is an integral part of the NIABY explanation. Evidence of participation or rather lack thereof offered or put into action is found in the secondary data as such:

"'Public' Liaison Committee meetings are closed to the public! COLA asked if a representative could sit in on future PLC meetings as an observer. Councilor El Chantiry, the PLC's chair, responded that meetings are not open to the public. Under the terms of reference, PLC members who speak to the community must ensure their views reflect the consensus of the PLC. We were told that we can't attend, because we might hear dissenting views around the table. Contrast that to Waste Management's Twin Creeks landfill in Southwestern Ontario: PLC meetings there are completely open to the public. Anyone can request to make verbal presentations of up to 15 minutes. Only confidential matters are dealt with in camera." (Coalition for Landfill Accountability, 2016)

"OUR REQUEST: COLA is asking the City of Ottawa and Waste Management to consult and include residents and community associations in the negotiation process now, instead of after a draft is completed. Community input and engagement in the HMRA is vital to the development of a fair and effective agreement that benefits citizens." (Coalition for Landfill Accountability, 2015)

"'I feel these few people want the landfill site to smell at these locations to serve their purpose to fight the expansion plans of the WMCC. They have exaggerated the odour complaints and in some cases I would conclude they have lied about the odours. At some point, I may have to consider this as misleading information,' wrote MOE environment officer Greg Davis back in 2011." (Sherring, 2014)

Obviously, evidence to support the lack of participation is abundant; therefore, this aspect of the NIABY explanation is supported in the data.

As mentioned in a previous section of this case, the data was collected at a time in the process when the opposition groups were well-formed and organized. In the case of trust, or more appropriately, mistrust, some of the members of the opposition group had developed a perspective that any communication with those who did not strictly support their cause or were not members of the group was forbidden or at least to be approached with extreme caution. Evidence of the mistrust can be typified into three categories: Trust and government, trust and industry, and trust and science.

Evidence of mistrust in government can be found in the secondary data analysis in the following forms:

"'Waste Management is just being Waste Management. This is a failure of our city, our municipal, and our provincial politicians,' said Kevin Seguin, a resident who lives three kilometers from the landfill, to a cheering room." (CBC News Ottawa, 2006)

"The Ontario Ministry of Environment is being accused of bias in its handling of a proposal to expand the Carp Road landfill after the release of emails in which an environmental officer suggested some people 'exaggerated' or 'lied' when complaining about bad smells from the landfill." (CBC News, 2014)

"'It's disturbing that MOE officials responsible for monitoring the day to day operations of the landfill on Carp Rd. and protecting the environment and people from polluters so easily dismissed and discredited the concerns of the community.

It's especially disconcerting given that these reports were made during the period of the Environmental Assessment where MOE officials in Toronto relied on their Ottawa based colleagues to provide a fair assessment of the potential risks of a new landfill,' said Moore." (Sherring, 2014)

"The PLC's terms of reference muzzle city councilors. The terms of reference state: 'Members who speak to the community must ensure that the views and information shared are that which reflects the consensus view of the PLC.' Effectively, that means that councilors can't freely express a point of view that contradicts the consensus of the PLC, whatever that may be. We think that councilors should be free to speak their mind on ALL matters relating to the landfill." (Coalition for Landfill Accountability, 2016)

The primary data analysis reveals a mistrust of government primarily focused on the provincial level:

"It has absolutely gone from like a mediocre mistrust to an absolute mistrust. I'm not sure if you... through your background research were able to get a sense of the appeal that we went through in 2007, but throughout that appeal process and throughout the environmental assessment process, I have seen Waste Management lie, be extremely misleading, be deceitful, be disrespectful. We requested access to information to get correspondence between Waste Management and the Ministry, the environment official to review the environmental assessment process and through that string of emails, it became very clear that Waste Management had a direct line of communication with

various representatives within the ministry about their application and that Ministry officials were guiding Waste Management on how to improve their application and within some of those correspondence, you would see things like, 'Well, who attended the open-house?' And Waste Management would reply, 'The usual suspects.' That's a direct quote from one of their emails."

So they... I mean all they did was they went through the motions that they needed to go through, to check off the boxes, vis-à-vis the steps and the environmental assessment process. There was absolutely no intent to actually listen to any of the concerns that the community had. And we've seen them being very evasive about... I mean we had to initially go to accessing the information to get ground water, their environmental... what do they call them, the environmental reports where they report on air and ground water contamination and those used to be all secret and then through the actions of the community, they're now public but it's still difficult to get, like there's no transparency."

"Yeah, well I can say that I have never been... I've never felt so let down by both, my municipal government and my provincial government as I did throughout this process. Ontario's environmental assessment process is broken, it's failing... not just on our landfill project but on a number of very serious environmental projects."

In these statements, one sees a developing and firm mistrust and disappointment in both the Municipal and Provincial governments. Of particular interest is that this mistrust is developing in a perspective that ranges from "mediocre" to

"absolute." It is inferred, then, that if mistrust in government is monolithic, as explained by NIABY theory, then it is also possible that the mistrust has varying intensities and that it may grow over time.

The variable related to trust in industry has a somewhat different nuance to that of trust in government. The secondary data reveals that the level of trust or mistrust is a matter of fact attitude that industry will proceed with no regard other than a profit motive. This attitude is revealed in the following statements:

"'Waste Management is just being Waste Management. This is a failure of our city, our municipal, and our provincial politicians,' said Kevin Seguin, a resident who lives three kilometres from the landfill, to a cheering room." (CBC News Ottawa, 2006)

"In the end, as you stated, it is unlikely industry would follow your strategies because they are already winning the approval process using their money and political influence, so why would they want to be ethical?" (Personal Correspondence, 2016)

"The vice president and general counsel for Waste Management of Canada says he's not sure if he would want to raise his children near the site of a proposed landfill at the Carp Road dump. 'Would you actually want to raise your family right next door to this proposed dump expansion?' one resident asked Don Wright, vice president and general counsel for Waste Management of Canada, during a question and answer session in Manotick on Tuesday night. 'Would I myself?' Wright replied. 'I don't know. I honestly don't know.'" (CTV News, n.d.)

The primary data analysis reflects a similar mistrust or expectation of industry and the power position that it is perceived that they hold:

"So Ontario's environmental assessment process is broken, the problem is on the waste management... front there's essentially an oligopoly of leaders, there's... you know a few huge players in the province and they have a lot of influence on what direction the industry should go and how fast it moves in that direction so Ontario hasn't had a review of its waste management strategy in a number of years and it got kick started, you know, during the environmental assessment process and then all of a sudden it was pulled off the table and it was gone. Now it's come back again, right, so they're walking through it again and I'm not sure exactly where it's at but you can see the industry having influence on that process to make sure that their world doesn't change a whole lot, right, so things like banning certain things from landfills like organics or... well, that... you know just gets taken off the table because it would, you know cut into their business too much."

"So, when they posted their application for approval for air emissions in 2007, in the application they said that they were asking permission for certain amount of air emissions and it was all within the regulatory requirements and that not... there it would result in no detrimental impact to the community. Well, we all just killed ourselves laughing because meanwhile from 2005 up until that point in 2007 when we were experiencing really a significant odour issues from the

landfill but the landfill operator, Waste Management, was submitting an application to the Ministry of Environment saying, 'And there is no odour.'"

"At the same time, Waste Management is asking... is requesting to purchase additional land to expand their contaminated attenuation zone because their landfill is contaminating the ground water so it's sort of diametrically opposed things happening there. On the one hand they're saying, 'Oh no the landfill is not...can't contaminate,' and at the same time their current landfill is already contaminating the ground water. So, then we raise concerns and this was a very important concern that once they get the new landfill, they can always say that any ground water contamination is really the result of the old landfill and we'll never know exactly where the contamination is coming from which I feel is a huge problem. So that answers your question is like 'No.' I mean anything that they say to me, I always like, I'm very skeptical of it."

There is evidence then, that opposition group members have a monolithic mistrust or at least expectation that industry is primarily fixated on the profit motive. Whether this is mistrust or trust is a matter of perspective, but it certainly is in keeping with NIABY explanation.

As for trust and science, the secondary data analysis produced a perspective of mistrust of science but not a general one. In this case, the mistrust of science is focused on who is presenting the science and not in science in general:

"Those in attendance, including many members of the CCCTE, listened quietly to presentations and expressed gratefulness to the Waste Management staff for

laying out the science to them. But many still had questions about the science, and CCCTE members expressed their continued frustration with the company's proposal and with their monitoring of the old Richmond landfill." (Balogh, 2012)

The primary data analysis also reveals that the trust in science is leveraged on how the science is presented and that it is not always an objective perspective.

"Yeah, you know I would say that it's dropped off and that's because again through the appeal process that we had as well as through the environmental process and our participation on a the... community, the Carp Landfill Community Liaison Committee so the formation of that committee happened as a result of the conditions of our appeal so Waste Management was required to strike this committee that had local politicians and representatives from the Ministry and representatives from the community and representatives from the people who made the appeal on it and so... and we spent a lot of time looking at ground water contamination data and you really getting... sitting sending in in those meetings I could really see how you could present scientific evidence in a way to make your point and that's what they did and it really is all about modeling, right, and having a model and sticking with that model and not accepting any challenges to that model and the same thing was true for air quality, which resulted in the appeal in the first place. But meanwhile we knew there is and that's one of the reasons we won the right to leave to appeal was because the environmental tribunal said, 'No, no, we know there is a problem. Waste Management is not being accurate.' So, I don't have a lot of confidence in the

science the company presents because I've seen the ability of our scientific experts to challenge their science, right, and say, 'No, there are holes here, here and here and you didn't look at this parameter, and in this parameter, and in this parameter,' so it's a very interesting lesson to learn that they're... you have to scratch beneath the surface to get a fuller story."

"I think like I am very much a proponent of an evidence-based approach so and that was the type... for the group of us that we're opposing the landfill. That was the approach we took. It was evidence-based, right? And we have the evidence to prove so we have the facts on our side, we proved, I mean we went... out and then hired experts and we proved that this landfill was going to be detrimental to the environment and the community. So, it's still valid but I think you have to layer science if needed because it provides you the facts but then on top of that, you need to layer the precautionary approach."

The trust in science but not in the way it's presented, or who is presenting the science, is not in keeping with the theory of NIABY. Reflexive modernization suggests that mistrust in science is a general attitude present in society. What is witnessed here is somewhat different.

The data was analyzed for evidence of participation, as this aspect of reflexive modernization is one that is purported to underpin the NIABY explanation. As explained previously, the aspect of participation can be seen in this case more as a lack of participation or opportunity to participate than actual encouragement and provision of participation. Some of the preceding quotes, both secondary and primary, lead the

researcher to suggest that participation was not encouraged initially, or during any stage of the process.

Also as mentioned and cited previously, was a widespread lack of interest among the members of the opposition group to participate—even in this research. By the time this research was carried out, a good number of the opposition group members were not willing to participate with any person or group unless to further their cause of opposition. This phenomenon is cited in some of the literature review researched and is therefore not thought to be anomalous in this situation.

An additional aspect of reflexive modernization is risk. The researcher has suggested previously that risk is intimately associated with the threat to normalcy. Risk and the threat to normalcy are cited in the secondary data analysis as follows:

"'I can't even bring my son outside sometimes because it's so smelly out there,'

said Danelda Ploe, a Stittsville high school teacher" (CBC News Ottawa, 2006)

"'I said, if these guys can't take care of my business for me, I've got to go in

there,' he recalls. 'This landfill is no longer in our backyard; it's at our doorstep.'"

(Butler, 2010)

"As past experience has shown odour from a new landfill will travel far beyond

500 metres and be a nuisance and trespass to thousands of nearby homeowners.

In 2007 odours from the landfill were reported from as far as 8 kilometers from

the dump. Truck traffic can impact road congestion for several kilometers around

a landfill. The active landfill will be visible from many locations including Kanata

some 5 kilometers away. Groundwater contamination from the existing landfill

has been found as far as 500 plus meters from the site and in some places the outer limit has not been defined. Research indicates a mega dump will negatively impact property values well beyond 500 meters." (NoDump.ca, 2012a)

"'All they can do is try to mitigate the impacts, not eliminate them,' MacKenzie said. 'There are environmental impacts, it's a fact, not an opinion. There are real impacts and real risks, and the community still has every reason to be concerned.'" (Helmer, 2010)

"You've got a neighborhood that's going to be hugely impacted by this landfill and then we know that the landfill is harming the environment, we know that, we proved it, right?"

"Never mind – Sorry, never mind the emotional impact of leaving a house in that I got married at and I had my two kids in and that would be like a whole other level of grief, I don't know like a loss that I would have to get over, right?"

Again, the analysis suggests that the presence of risk mitigation and of a threat to normalcy is prolific. While there is evidence to support the NIABY explanation, there is also ample disagreement with the explanation – not the least of which is how the NIABY characteristics seem to evolve within the data and are not nearly as present at the initial stages of the opposition dialogue.

4.2.4.7.4 *Pathology of Conversation*

The pathologies of conversation that occur in this case are not unlike the first case. Analysis of the data produces similar observations of an announcement being made through the newspapers or media and an almost-immediate call to action by

those who had not previously been involved in opposition groups. The primary data

reveals the following regarding the timeline:

> *"So, then fast forward to 2006 and we caught, we saw an ad in the local weekly*
> *newspaper for a public meeting about a proposed landfill expansion of the*
> *existing landfill."*

> *"So, then I guess it was in early February 2006 we saw this notice for the*
> *expansion and absolutely everyone that lived in the neighborhood was under the*
> *impression that this landfill was going to close, it was scheduled to close in 2009*
> *or 2010. When people bought their houses, they would say, 'Oh yeah, the real*
> *estate agent told me that landfill is going to close, it scheduled to close in 2009 -–*
> *2010.' So, kind of threw everyone for a loop when we saw this notice about the*
> *proposed expansion so that was not congruent with people's expectation of the*
> *landfill closing and on top of that, the original proposal that was put forward in*
> *2006 was to triple the size of the current landfill so it was huge and so the*
> *community... and I'm not exaggerating, the community flipped out and there*
> *was... people organizing."*

> *"We learned about the expansion in a very nondescript advertisement in the*
> *weekly newspaper and I think it was posted in the one that services our area, the*
> *West Carleton Review where, I can't remember what it was called at the time,*
> *and then the Stitsville News, which was the weekly version for the community of*
> *Stitsville. And then that's how we became aware of the expansion and that's how*

we all became intimately familiar with the problems with this landfill in our neighborhood."

The researcher posits that this is compelling evidence that the simple act of announcing the proposed landfill without a vehicle for dialogue, feedback, or capability for the community to have input into a process that is already threatening the sense of normalcy felt by the community members, prompts action. The lack of communication channels and the hopeless feeling of isolation are mirrored in the secondary research and are cited as such:

"On Thursday, the Ministry announced the plan had been approved and said city officials had been informed, drawing a strong rebuke from Ottawa Mayor Watson, who said he learned of the news through the media and said the lack of notification showed a 'lack of respect.'" (CBC News Ottawa, n.d.)

"And it has the city councilors most closely associated with the landfill worried as well. In fact, Stittsville Coun. Shad Qadri said as shocking as Davis' comments are, the city has felt the same bias. 'It is pretty harsh, expressing his opinion,' said Qadri. 'But I'm not surprised.' Both he and West Carleton-March Coun. Eli El-Chatniry said on Wednesday they've felt the same sense of frustration with the Ministry, not getting timely responses from them and sometime no responses at all." (Sherring, 2014)

"Why do we end up with projects like this new landfill ... that we know in 10 years is going to cause a lot of problems within the community? People will look back

and say, 'How was this project ever approved?' Well it was approved because the

MOE did not listen to the people in this community." (CBC News, 2014)

Again, with no direct path for feedback to the originator of the threat and no apparent interactive and meaningful platform established for the community to influence their perceived situation, the threat manifests as a threat to normalcy—a threat to the ontological security of the community members. The researcher cites this in the primary data analysis as follows:

"Yes. So, there was that initial public meeting that happened where we had representatives from the City of Ottawa and representatives from the company. That made us really angry because it was being treated like it was all a fait accompli and we had city officials coming to us and say even though the environmental assessment process had not even begun, right, they were... they just basically announce a draft proposal, we had a city official, a senior city official come up to us and say, 'It's going to go through, get the best deal you can,' which I thought was appalling so we got really angry just... not only because of their proposal but also because of the attitude that was being presented to us. Both by the city and by the company, a lot of arrogance, right, like there's nothing you can do. There wasn't even a sorry, it was like 'It's going to go through, get the best deal you can.'"

"Yeah, I mean the officials from Waste Management, they might as well just like cover their ears with their hands because I know they're not listening to me."

"I mean, again it goes back to those emails and they considered us the usual suspects, right, so I mean when you have... that attitude to those people who have concerns about your accretions operations then you're not listening."

"Yeah, I mean I... I put that in a too many to mention specific like I can't – Yeah, you know I mean I would say generally speaking that they were not open to listening to the community's concerns."

"Absolutely not; in fact, it's the opposite. So as part of the conditions of approval for the environmental assessment, Waste Management was required to strike another community liaison committee for this landfill so it features local politicians and then (in quotes) 'Community representatives' but I look at the community representatives and I really don't know any of those people and I can't say see any of them with confidence will represent my community so... and they... Waste Management basically picked the representatives to be on that committee. The meetings are not public., I have no idea what they discuss in those meetings. I have no idea how to engage with those committee representatives. So, it's basically just a lame-duck committee so I don't... and again it's that they had to do that for their environmental assessment so they did it so they can check the box off but is it a true committee that actually liaises with the community around concerns about the landfill? I would say no. So, I don't think there's any commitment there to be transparent with the community from Waste Management."

Once again, the researcher cites the dissemination of information regarding the proposed LULU as a sudden media release, which almost immediately is cause for fear and mistrust within the community. Organization occurs almost immediately and throughout the quick process, although sought rationally and justifiably, there is no vehicle in place, no conduit for effective dialogue including the capability to influence change, available to the opposition group.

4.2.5   Discussion

It is deemed that further discussion of the preceding pattern matching analysis is warranted. The researcher will explore further the fit of the data analysis with the extant theories; NIMBY, NIABY, and Pathologies of Conversation.

Again, the researcher notes that the NIMBY explanation is limited in its usefulness as a description of what is causing the formation of the opposition group. While the proximity to the proposed LULU is a factor in this case and mention is made often of the backyard or doorstep aspect of the proposed LULU, the explanation falls short in its capacity to encompass the aspect that NIMBYists would support this type of LULU elsewhere. Of special note in this case, the LULU is an expansion of an existing landfill that was scheduled to be closed. So, we see that this LULU was already in their backyard and is still being resisted.

The explanation given regarding this aspect is highly qualified with the nuances and situational complexities of this type of LULU in this context. Landfills are claimed to be needed but only because society is not doing a proper job of waste stream

management from beginning to end of tailpipe so to speak. This perspective is much more in keeping with a NIABY explanation than that of the limited NIMBY theory.

The data analysis produced evidence that both supported and refuted the "fit" of the NIABY explanation. A strong point of support for NIABY includes the aspect of not needing landfill altogether. Waste stream management, it is purported in the data, is a much better alternative.

Equity and the closely-related emergent theme of moral hazard are well supported in the data as well. Equity is a central theme that develops as a negotiating point for the opposition group members. Over the evolution of the opposition group, both aspects become prevalent in the dialogue.

Participation or lack thereof is also well supported as a theme in the data. Lack of a conduit to effect change becomes a focus point in the dialogue and can be seen as an important theme in both NIABY and, as will be discussed later, in pathology of conversation. The importance of this theme or aspect of the situation is quite identifiable.

Risk, and its close association to the threat to normalcy, is also well supported in the data. In keeping with the underpinning philosophy of reflexive modernization and its focus on the risk society, there is ample evidence in the data to support this theme. Of interest in this case is the fact that this landfill is an expansion of an older, thought to be closing, landfill. The participants and the secondary data, however, support that there is a perceived risk to health and future generations and that normalcy, which currently includes a landfill, is seen to be threatened by a larger addition to the existing one. The

risk perspective is maintained regardless of the existing landfill whose risk, one might surmise, has already been accommodated. This suggests that the risk perspective is possibly an aspect of the ontogeny of the opposition group and not something lying dormant in the psyche of the opposition group members. Thus, this aspect may not be in keeping with the NIABY explanation.

The aspect of trust and mistrust in government, science, and industry also lend some support to the NIABY explanation. Certainly, the subject of trust and industry seems to be centered on trusting industry to remain motivated entirely by profit and in no way by social responsibility. Science, on the other hand, is seen to be a vast body of trustworthy objective observation but, dependent on the user and the source of funding, a body that can be selectively drawn from in an effort to support one's preferred cause. This is not in keeping with the purported ubiquitous mistrust of science that is suggested by reflexive modernization.

Trust in government in this case was also heavily weighted in the data toward governments that supported the cause. Smaller local governments used the LULU proposal as an election issue. Running on an acceptance platform would likely have been political suicide. However, Ottawa the nearest city, had some capability to influence the acceptance of the proposal and, in the end, chose to accept the terms of the environmental assessment. This placed them in the same light as the provincial government who had accepted and agreed to the landfill proposal.

The variance in the aspect of trust and mistrust is not in strict keeping with the underpinning philosophy of reflexive modernization and, as such, not in agreement with the NIABY explanation.

Conversation pathology is strongly evidenced by the means with which the proposal was announced to the community. Conversely, it is how the community learned of the proposal that was the spark for the call to action. The timeframe from announcement to organization is remarkably rapid. With no way to communicate their concerns regarding the proposal, mistrust and fear develop. The mistrust and fear develop over time as well and begin to spread to any stakeholder that does not support opposition. Without the conduit of meaningful dialogue, the dance between controlled and controller becomes one of each entity attempting to take control through whatever means is available to them. The community opposition group begins to build a repertoire entirely focused on opposition with no room for learning or understanding—us and them.

4.2.6   Conclusions

The Carp Rd. dump expansion proposed near Ottawa, Ontario was announced through a media release in local newspapers. Within a week, opposition groups had formed and organized. These groups would quickly form into one group in opposition to the landfill proposal. No dialogue was promoted between the government or industry stakeholders per se and very little was promoted between municipal governments and the provincial government or industry. A gridlock of meaningful dialogue continued to perpetuate mistrust, fear, and relentless opposition within the community.

While proximity to the proposed LULU played a role, evidence of the need for landfills somewhere was weak at best and was qualified by a more NIABY-leaning perspective of them being a necessary evil until more waste stream management could be implemented.

Evidence of the NIABY explanation for the formation of the opposition group was strong and yet still fragmented and dappled with inconsistencies in its explanation. Certainly, it does not appear that mistrust in science, industry, and government is always part of the repertoire of the participants, but rather that this perspective is developed over time or not at all dependent on the support for the cause. Therefore, in this case, we do not see strict support for the NIABY explanation for the formation of opposition groups.

As is suggested in Case One, the events and comments in the data support the conversation pathology explanation. In answering the question of what causes the formation of opposition groups, it appears in this case that the combination of the means of message delivery, the threat to normalcy, and ontological security and the lack of a conduit for meaningful dialogue contribute in no small way toward the immediate formation of the opposition group. An annotated bibliography has been included in Appendix D to allow the reader to know what documents might be relevant for further inquiry.

4.3 Case Study Report 3

4.3.1 Introduction

As in the other cases in this paper, the data collected was analyzed and coded using Nvivo 11. The data was then used in a pattern matching exercise to both support and refute the variables of each explanation. The geography in which this case takes place is the rural Ottawa area a few kilometers away from the community of Carlsbad Springs.

Analysis of the data revealed material that both supported and refuted the dimensions of the extant explanations for the manifestation of the opposition group. The analysis of the data also produced three new themes: moral hazard, a threat to normalcy and a temporal dimension, which show promise of pushing forward the extant explanation.

The analysis suggests a weak support for the NIMBY explanation. The best fit and most interesting explanation, combined with the emergent themes, is that of the pathologies of conversation theory. The case concludes with a discussion and a conclusion section that extend the pattern matching exercise to a revelatory and insightful area of the research.

Context of Data Collection

This case situation is geographically located in the Ottawa, Ontario area, 1 kilometer from the community of Edwards and 2 Km from the community of Carlsbad Springs.
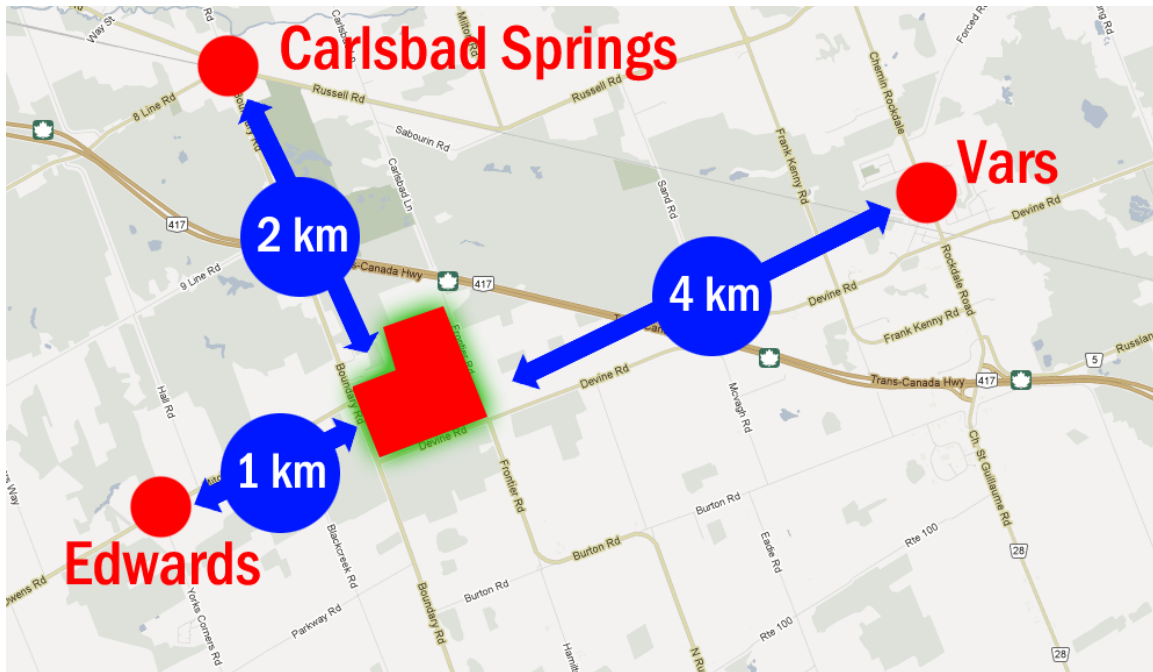
Figure 27 Location of Carlsbad Springs Landfill (Dump This Dump 2, n.d.-b)

As of June 5, 2017, the landfill site has been conditionally approved by the Ministry of The Environment and Climate Change of Ontario (CBC News Ottawa, 2017). The proponent in this case is a conglomerate made up of the Ottawa local Taggart Construction Company and the Toronto-based Miller Waste Systems. The Carlsbad Springs location was not originally proposed, but was introduced in a surprising manner as an alternative to the original North Russell Road site. Eighteen months after the November 2010 notice of commencement was struck by Taggart Miller came a notice that a second site was being considered based on feedback from the community regarding the initial site (CBC News Ottawa, 2017).

The other stakeholders include the Province of Ontario provincial government (Liberal), the municipal government of Russell Township, the City of Ottawa, scientists, and the community. The community opposition group that is the interest of this case

study is the Capital Region Citizens Coalition for the Protection of the Environment. Their current campaign is entitled "Dump this Dump 2."

4.3.2   Issues Encountered

As in Case two, the sense of fear that permeated the opposition group members was heightened to the extent that it affected those who might have participated had the research been done earlier in the process. While this case research takes place chronologically closer to the initial announcement of the proposed LULU, a similar reluctance to talk to anyone outside of the immediate support structure of the opposition group was prevalent. While this aspect did not prevent participation, it is plain that this reluctance restricted participation. The end result was that one participant, although a founding member and as such quite valuable to this research was all that participated. This aspect will be discussed further later in the paper.

4.3.3   Data Analysis

4.3.3.1 <u>Method for Analysis of Documentation</u>

Secondary data was collected from several sources including internet-based newspaper articles, videos, newsletters, mailed correspondence, photographs of signage taken within the community, and legislative documentation, and statistics available on-line. The preceding sources were mined and studied by the researcher and uploaded into NVivo software. After the organization of the sources, the sources were analyzed and coded per the planned coding regime mentioned in the methodology

section of this thesis. Any emergent themes in the data were added as new nodes in the coding regime.

4.3.3.2 Emergent Themes from Documentation

The speed with which the opposition group forms is once again reinforced as an emergent theme in this third case. The secondary data analysis demonstrated the quick reaction to form the opposition group. The time from announcement to reaction was almost immediate and this is once again of great interest to this research. The specifics of this emergent theme along with the second emergent theme, moral hazard, will be explored at length later in this report.

Moral hazard revealed itself in the secondary data in this case as well. The dialogue that is published and the language that is used takes up this aspect as time passes from the initial announcement. The dialogue includes claims of having to deal with waste that others create, having people outside the community take risks that will be borne by community members, and decisions made on behalf of the community without a community voice being heard.

4.3.3.3 Protocol for Transcription

The transcription protocol did not deviate from that found in the general methodology section of this research.

4.3.3.4 Triangulation of Data

Data triangulation was carried out throughout the analysis and write-up of the thesis and was used to corroborate facts between claims in both the primary and

secondary data. Timelines were also clarified and corroborated using this method. In general, the aspects of the different theories were identified and either supported or refuted using this method of evidence identification within both the primary and secondary data for each individual variable of the unique theories/patterns.

4.3.3.5 Coding Procedure and Protocol

Coding was done manually and followed the protocol of four levels as previously detailed in the methodology section of this research. NVivo 11 was used as an organizing tool only and no other analysis tools within NVivo were used save for the word cloud produced and illustrated in Figure 1. As themes emerged from both the secondary and primary data, they were recorded as nodes in NVivo. The final codebook can be found in Appendix B.

4.3.3.6 Emergent Themes from Transcription

Evidence of a "threat to normalcy," as has been explained at length previously, is found emergent within the primary data. This theme is of interest for the same reason as in Cases One and Two. Specifically, the researcher suggests that the method by which the proposal is announced—a public "communication"—is a vehicle which causes the pathology of conversation. With no apparent input or channel for meaningful dialogue, the announcement is viewed as an impediment to the ontological security of the participants. This is the perturbation that leads almost immediately to the taking of defensive action in the form of an organization. The opposition group stimulus for formation is the result of the "threat to normalcy" pathology initiated from the

perception of the announcement method of the proposed LULU, grouped with the lack

of vehicle for meaningful dialogue by those producing the proposal and empowered to

accept or reject the threat.

4.3.3.7 <u>Statement of Extant Explanations and Pattern Matching</u>

The previously defined explanations for the formation of opposition groups,

namely NIMBY, NIABY, and pathology of conversation, are explained and their patterns

matched with patterns in the primary and secondary data analysis. The core of the

research captured is illustrated in this section.

4.3.3.7.1 NIMBY

Of great importance to the reader is the understanding that the NIMBY

explanation/theory is dependent upon two variables and that evidence of both must be

present in the secondary and primary data to form a good "fit" with the explanation.

The aspect of geographic proximity must be present concurrent with the elitist

perspectives that, while LULUs—in this research landfills—are necessary, they are

undesirable in this geography. Not in their backyard.

Geographic proximity is evident in both the secondary and primary data analysis.

Evidence of this variable manifests in the secondary data as follows:

"I live just about two and a half kilometers from this place I actually come down

in the morning and have my cup of coffee in the car, and I just look at this land,

and it just sort of fuels me to continue on because I say I can't let this happen. I

have too much, too much emotion related to this land, I've gotta, I've gotta keep

on going. And you know what? It works every time. I go back I sit home and open

my iPad and I go tweet my little heart out." (Brunette & Maltais, 2015)

"Taggart Miller have drawn a circle on a map with a 5kms radius, but what

exactly would they do to help someone in the future who wanted (or needed) to

leave their home beside Taggart Miller's dump?" (Dump This Dump 2, 2013b)

The primary data reveals a similar level of support regarding the spatial variable. Evidence of this is found in statements such as:

"That's the first thing. In my case, I'm going to be like three kilometers from this

potential, proposed landfill."

"About three kilometers. When they say, they always go from the middle of the

landfill to the area because in fact, on the edge, I'd be closer but it's three

kilometers. Three kilometers West from the proposed landfill."

"Out of sight, out of mind. That's what it really boils down to. Until you realize it's

going to be closer than you think. Then of course you've got an extra incentive to

actually look into this thing, and that is unfortunately... It's really bad because

you don't need to be close to a landfill to really see the bad things that it

produces around and that's all it is."

The all-important second variable is not nearly as prevalent. In fact, the researcher suggests that there is no support for an elitist attitude regarding the geographic location of the landfill in either the primary or secondary data. Rather, the analysis reveals statements that support a NIABY perspective more than a NIMBY perspective. Support of this claim manifests in the following citations:

"The only sure thing is that Taggart Miller feels the need to offer some sort of compensation. People only get compensated when something bad happens and that's what this landfill is – a bad idea." (Dump This Dump 2, 2013b)

"There is a bigger issue altogether. I mean there is always the syndrome of 'not in my backyard.' You'll hear this all the time. What we've come to realize, is that in 2016, we as a country, because we have a lot of space, and that's probably the worst detriment to us. Is we have the space. We are not thinking about how do we stop this digging holes, and throwing our garbage in. There are many, many issues with that."

Once again, as is seen in the other cases in this research, the data does not fully support the NIMBY theory. The participants and the secondary data do not explain an elitist acceptance of landfills somewhere. To the contrary, the perspective of landfills is one of rethinking how waste is dealt with at its source or alternatives, such as incineration, being employed to deal with the issue.

Proximity to the LULU is certainly prevalent in the data in this case. Local media and members of the opposition group are the key sources of data. The LULU is a localized issue and only touches on stakeholders outside of the issue in the form of the provincial government, the proponents, and those who might benefit from the disposal of their waste in others' locations. However, proximity is an important aspect in the explanation, as it plays a role in pathology of conversation and in NIABY.

4.3.3.7.2   NIABY

While important, location is only one of many variables encompassed within the NIABY explanation. NIABY is a theory of opposition group explanation that suggests that members view the issue of the LULU as a societal one and do not generally accept the LULU in any geography. The theory also suggests that members are concerned for future generations and about how the consequences of today's actions might reflect on the next wave of the species.

NIABY theory also includes reflexive modernization as a foundational philosophy. The aspects of risk mitigation, monolithic mistrust of government, industry and science, participation and equity need all be present to suggest NIABY as a valid explanation.

Evidence supporting the dependent NIABYist variable that supports a societal solution to the LULU at hand is evidenced in citations as follow:

"The Ottawa region in eastern Ontario already has sufficient waste disposal capacity - the project is not needed. If we allow this landfill to go in, we will have excess landfill capacity in the region, which will drive down dumping fees and discourage recycling. It will be easier and cheaper to just dump!" (Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE), 2012)

"The province of Ontario has to look at methods, other than the use of landfills, as a primary waste disposal method. The Ministry of the Environment needs to embrace a proactive approach to Waste Management and explore alternative technologies and actively pursue waste diversion initiatives in order to produce a sustainable long-term solution for waste disposal! We cannot simply continue to

build more dumps!" (Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE), 2014)

This variable of NIABY was supported in the primary data as well. The citations follow:

"Also, there always has to be push back in that industry. The other thing to this, again, as I've been exposed to this in the past five years, you realize this, there's something wrong here. If you force the industry, like around Toronto, around the area, there's a, there's this one mayor in particular that's sort of promoting that the industry could cut back on the packaging. You're probably like me. I go to Costco, I buy, I don't know, I'll just say a little USB card, a and I walk out with a 11 by 14 really hard plastic that I cannot recycle. All that because they want to put in their magazine, their publicity, their marketing inside for a tiny USB card. So, the onus has to start to be put on that industry, for them to recycle properly."

"In my case, to be quite honest Phil, I guess because of the way that I got involved, first of all, I am of the opinion that there is no need for a landfill."

Evidence of the variables of risk and risk mitigation is well supported in the data. The secondary data reveals examples of risk in the following citations:

"SAND LAYERS in the soil of the site make the risk of 'off-site migration' of contaminants unacceptably high. Ground water pollution from this project could travel RAPIDLY through the sand layers all the way to the Bear Brook, to private wells within several kilometers of the site (especially to the North), and possibly extending to the Mer Bleue.

SOFTNESS of the deep, wet clay soil make the site unstable for a large weighty structure, like a landfill, and is especially vulnerable during seismic events, which pose a significant risk issue in this part of the province.

SURFACE WATER exists all over the site due to the high water table (the site habitat is a peat bog and forest) again raising the risk of polluted off-site migration especially during heavy rain or seasonal flooding events (frequent)."

(Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE), 2012)

Not surprisingly, the primary data also supported the presence of this variable. The citations follow:

"Because if they do, there won't be a need for landfills like people are asking. It's just awful. Those are like all... It's not only the 'not in my back yard thing but it's all that together and then to top it off, all the landfills leak. It's proven. They all leak. So, they can make all the promises they want, it's going to leak."

"Our politicians are not doing anything because, well, let's face it, all these big businesses which are wanting to have landfills, when in this particular case, the one that they're proposing, it's going to be industrial, institutional, and construction and commercial waste. So that's the worst toxic waste that you can get. It's wet waste. It's not the approved site garbage, it's really that stuff and that is toxic."

Evidence of the variable concerning equity was also discovered within the primary and secondary data. Citations supporting the presence of equity concerns follow:

"Similar battles fought by other communities run costs (over a period of a decade) of $400,000. Taggart Miller has experts working on their behalf to get what they want—a landfill. We need experts (to refute their experts) so that we can keep what we have: our safe quality of life in a peaceful community. Unfortunately, experts can get expensive." (Dump This Dump 2 Newsletter October 2012, 2012)

"The reality is, this project is really big and the voice of our towns is small. So, the next sensible step is to reach out to our urban neighbors. After all, this project is about waste from the main city, but most people living there have no idea what we are fighting out here. We live in Ottawa's breadbasket. This is the scenic approach to Canada's Capital. Handling waste responsibly is vital to the whole region, not just a few villages. It's time to let Ottawa know what's going on!" (Dump This Dump 2 Newsletter January 2013, 2013)

"Technical points remain unanswered, including the inability of the site to handle the weight of the project, the inability of the native soils to effectively hold back the pollution, the risk for the site to experience a serious failure called liquefaction if an earthquake strikes, and the fact Toronto's garbage would end up being dumped here where it doesn't belong." (Dump the Dump Now, 2016)

In the primary data, the researcher cites the following examples of equity mentioned:

"The other aspect is, I've been following a lot in Canada and there seems to be some kind of movement for example. That they are really trying to force the industry. Because the problem is, they've trained us well as residents, to recycle. The average resident recycles well. The problem is the industry. They are not held accountable. There's not even an official guideline or law that says that they've got to recycle 16%, and most of them recycle maybe up to 13%. There's a big gap there."

"Benefits, then I'd say Toronto because finally, they'll have a place to go and throw their garbage, and the community, no benefits whatsoever. I can't see any."

The equity variable in this case is not limited to the act of dealing with the waste of others. Equity in this case spreads to industry not being held to the same standards and government bowing to the desires of business and revenue generation instead of toward constituent needs.

It is at this point that the theme of moral hazard emerges. The researcher suggests that this emergent theme is closely tied to the equity variable. The data reveals that the opposition group members and the secondary perspectives are of a nature that will have to "deal" with any risk endured while those who are making the waste and the decisions on the siting are remote.

The participation variable plays an important role as well in the constitution of the NIABY explanation. Evidence of participation or, in this case, lack thereof is cited as follows:

"Golder asserts there are no faults where claimed in the published paper, and MOECC accepts that, despite my having written more than 30 letters and reports with information and maps that argue otherwise. Some of those communiqués were sent to the minister, Glen Murray. There have been no responses from MOECC other than brief notes acknowledging receipt of my messages, and one letter from the director of MOECC's Environmental Approvals Branch. The latter was encouraging, but it happened last summer and since then, nothing." (Wallach, 2017)

"I guess my one discussion with Mr. Taggart at one of the public consultations, I was mad because I didn't know who he was but he was there. He was in front of one of the areas that we had to read those big boards. They call it public consultation but you just stand in front of big boards and you walk around so it's not really a consultation, but anyways."

"The only way they want our feedback, is in the specific time when we need to respond to a final environmental assessment. The next step now will be whenever they submit their ministry review, we have five weeks again to comment. Otherwise, they don't want to hear from us. They are there to ensure that the proponents who applied to have this landfill, follow the guidelines and then prepare the studies to show that they have done their research and so on,

and to me, it's a checklist. Tick. Tick. Tick. Tick. That's what it is. That's what that environmental process is. They don't want to hear back from us. We send letters, for them, the only time they want to hear from us is whenever there is a specific time where we need to comment on something that the proponent has given them. Every time we send something... They can't do this, like we said, they haven't even done a study on methane gas. We know landfills produce methane. So, they turn around, they give whatever we've given them, they turn around and give it to the proponents. Say well, what do you want to do about that? So, the proponent goes ahead and does studies blah blah blah... Gives it back to them, we never hear. We don't hear about it. So how can you fight something that you don't hear about? The environmental process does not take into account any of the community's whatever... Whatever we put forth. Whether it's our research, whether they consider it at specific times. In the process itself. But not to listen to us or engage, or anything."

The data supports the lack of participation variable. There is no vehicle for participation, comment or dialogue throughout the case period. This is in keeping with the NIABY explanation; however, this variable is also one that has a role in the pathology of conversation. This will be discussed further below.

As has been witnessed in the previous two cases, trust in government, industry, and science or rather the monolithic mistrust of these entities typifies NIABY. In the case presented currently, data to reinforce the presence of a mistrust of government was cited as follows:

"Dec 16th or so, the Ontario Minister of the Environment ignored the pleas of all our elected representatives and thousands of local residents, and approved Taggart Miller's Terms of Reference (TOR). This means the company will go ahead with environmental studies ON BOTH SITES." (Dump This Dump 2 Newsletter January 2013, 2013)

"Ontario is Going to Waste: Ontario's Ministry of the Environment is failing in its mandate—and local communities are paying the price with water contamination while private landfill proponents rake in the cash." (Dump This Dump 2, 2013a)

"WE ARE the environmental assessment process – our community! We have a limited amount of time to speak up, or live forever with the consequences. Minister Bradley, Edwards and Carlsbad Springs are NOT A WILLING HOST COMMUNITY for this needless mega-dump. The proponents are not being upfront about the most basic information – that their project is firstly a landfill, not a recycling centre. They are not truly describing the risks to local water (the clay will not protect our wells!). Most important: OTTAWA DOES NOT NEED ANOTHER LANDFILL!" (Dump This Dump 2, 2013b)

Support for this variable is also cited in the data as follows:

"Local, very disillusioned. I dropped off enormously. Provincial, I had faith, I don't have any more. In the provincial level. Not any more. I've had local MPPs telling us to have faith in the process and I know that the process is so thwarted it's not even funny. I just had one word that could describe to you... People in Walkerton were told that everything was fine and to trust them. Out of that, seven people

died and quite a few of them were ill but they told them to trust them, the system was fine. We'll, it's not fine. Federal it's their non implication. Because landfills are controlled or legislated by the province, they can't do anything. It's not in their jurisdiction. I can't say I'm disillusioned with the federal, but I'm not pleased. I can't say much about the federal. The provincial, I'm very disappointed, and the municipal even more so because they keep saying it's the province, we have no choice. They have to change the zoning, they can't refuse that because they'd be brought in front of the Ontario municipal board."

"Like there's always excuses, but then on the other hand you hear that they are meeting with people from Taggart they are being kept abreast of the development. So, there's ongoing discussion, at least, I can't say anything else because I have no proof. But we know that they are, and then the MPP, which is the one that's more concerned, that's the one that told us to have more faith in the process. In the last discussion with her, she told us, you know, as a business woman and your local MPP, I'm telling you, before the window closes, you might want to discuss and put some sort of community benefit package with Mr. Taggart because when it closes, it may not have all this, and I cut her off and I said 'What do you mean? You want me to sleep with the devil? I don't want to discuss with Taggart I don't want the landfill to start with. There's no need for it.' And that's when I told her and I don't have faith in your process because it's not driven to protect citizens. It's driven to ensure that the proponents follow the rules that they have set which are actually very outdated. So, my level has

dropped. You always know. I've worked in the federal government all my life. I worked the last years in the Parliament of Canada House of Commons and you hear and you see all kinds. It sort of has an impact on you because you don't have to deal with them directly but this time round I had to. Very disillusioned. Very."

"The biggest complaint is for the province. In 2005, we're talking 11 years ago. A group of experts were formed as advisor committee to suggest ways on how to improve the environmental process. Since then, they produced 41 recommendations that year in 2005. Since that time, only a few have been implemented and of course it's the easiest ones. Everything else is still in a shelf somewhere in the Ministry. So, if we had to get an advisor committee in 2005, it's because they then knew something was not working well with the process. Eleven years later, nothing is done. The process is still broken, it's not working, it's not updated, it doesn't take into account seismic activity, there's a lot of stuff that it does not take into account."

In this case, the mistrust spreads to the local government as well as the provincial government. The City of Ottawa was required to approve the terms of reference and did. The mistrust of the local government by opponents of the project is consistent with the attitude of trusting those who support the cause but not those who don't oppose the landfill.

Data supporting mistrust of industry or at least trusting industry to only follow the profit motive is profound in the data as well. The data reveals the perspective that industry is an entity of deep pockets, with a singular objective of profit and with a weak

secondary regard for the community. Examples of this perspective are found in the secondary data as follows:

"Similar battles fought by other communities run costs (over a period of a decade) of $400,000. Taggart Miller has experts working on their behalf to get what they want—a landfill. We need experts (to refute their experts) so that we can keep what we have: our safe quality of life in a peaceful community. Unfortunately, experts can get expensive." (Dump This Dump 2, 2012b)

"MOECC required Golder Associates to respond to my accusation, which they did in a report entitled 'Response to Wallach - Critical Review of Geoscientific Component of TMES EA Final Version, February 2, 2015,' dated June 2015 and posted to Taggart Miller's website www.crrrc.ca. In that report, Golder Associates admitted excluding the information on faulting, but tried to defend themselves by claiming my paper was full of mistakes. There were some mistakes, but only one was meaningful, and I acknowledged it. Their remaining objections were either misleading or inconsequential.

Leaving out information is dishonest and Golder's stated reason for having done so is perhaps best described as a male bovine's solid waste product. Ignoring their deceptive reply, why did Golder feel compelled to withhold information? Concealing information from the environmental regulator should be considered as seriously as failing to reveal all income to the Canada Revenue Agency, for which there are penalties." (Wallach, 2017)

"Every media outlet you can think of—the people of Ottawa would be disgusted if they knew what is being pushed on us. This project isn't about meeting the needs of the people, just about profits for two self-interested companies, at the expense of everyone around their site." (Dump the Dump Now, 2016)

The primary data findings that support the mistrust of industry follow:

"Then these people, of course, want these landfills because if you're a big construction builder like Taggart Construction you dig and you get contaminated soil, you've got to get rid of all this stuff so if you have a land fill, it's a hell of a lot easier. You can make money because then the others will bring their stuff to you and then you have money that's given back to the city. It's like they pollute and then they say well let's do this, we'll give you money. Every truck that comes into my little landfill, we'll give you money, and all the cities now, especially municipal are having a hell of a time money-wise. Any kind of money is welcome. Then it goes further. It goes to you know, whenever it gets to the provincial level, where there's always elections and we know who sponsors elections. It's a big, big wheel and there you have these small communities trying to fight this."

"So, to me, my knowledge of them was, it's an old company. But as you get to dig more and more, you find out a lot more about the company and just the way they have preceded, with this particular landfill, I'm quite disillusioned. Not only with them, I have to be very honest, because I've heard many other things since then from other businesses, other businesses, other construction companies, and it's all in the dealings with the politicians and how they get their way around in

Ottawa and then how really it's not necessarily all for the best of our well being. Then they just get their way because they have the money. So, politics in the construction must be everywhere but in Ottawa, I was quite amazed of all the stuff that I found."

"I told outright to this gentleman who I didn't know at the time and I said you know, the saddest part about this that it's not an environmental need because we don't need another landfill. I said it's strictly a businessman's need. Just to make more money, and get more stuff. So that you know, blah blah blah... Then when he unfolded his hand, I saw the card, it was Ian Taggart. I said it still doesn't change my opinion. It's very unfortunate because you're not looking at the well-being of the residents in this area. I mean, you don't care whether the wells are polluted. You don't care whether the community is destroyed. It's just a businessman's need and then you'll walk away, and 10 or 15 years from now, and they'll just start another project and we'll be stuck with what you left behind. His response was I am a businessman. That's what I do. I do business. I looked at him and thought, how would you like to be in my shoes and I won't tell you the rest of it but that to me was very clear. It's like a business. That's what it is and that's how they look at it. It's a very profitable business. Okay?"

The views and perspectives in the data are very supportive of a general mistrust of industry mixed with an understanding of the need for industry but an appeal for industry to have a social conscience. The data thus support the NIABY explanation. Once again, however, the trust of science is a bit more complex and nuanced.

The trust or rather mistrust of science within the data appears as a general trust of science and fact and truth but a mistrust of the pure objectivity of how it's presented. Science in the hands of the proponent, it is revealed, is not comprehensive and is motivated by the desire to create a profitable business. The following secondary research citations demonstrate this nuance:

"Golder asserts there are no faults where claimed in the published paper, and MOECC accepts that, despite my having written more than 30 letters and reports with information and maps that argue otherwise. Some of those communiqués were sent to the Minister, Glen Murray. There have been no responses from MOECC other than brief notes acknowledging receipt of my messages, and one letter from the director of MOECC's Environmental Approvals Branch. The latter was encouraging, but it happened last summer and since then, nothing." (Wallach, 2017)

"Communities across southern and eastern Ontario are using scientific evidence and legal challenges to fight proposed privately-owned mega-landfills for commercial and industrial garbage—but landfill proponents are rarely stopped by the Ministry of the Environment." (Dump This Dump 2, 2013a)

A similar perspective is found in the primary data. Examples of this follow:

"I would say my level of trust with them is about, on a scale of zero to ten, three. It had gone down and I'll quickly explain to you. They do hire experts. They do studies. But they don't do them fully. So, they base their results on very small pieces of information rather than having the full-blown science study. We come

up with things by our experts, which contradict what they have. Then we're being dismissed. I mean like we don't know what we're talking about. So, the people that the proponents hire, I can't say that they don't do their jobs, they just don't do it fully. The best example for me I would say, you're speaking to me now, and you spoke to Olivia, and she said that you speak in the third person. So, based on three people, you'll say 75% of the people interviewed said they did not trust the proponents. But you really just spoke to three people. So, it's like 75% of three is not much. But if you have a hundred people, then you can... It's the same thing, all the information is always forwarded that way, it's always... They never give the full study. They sort of just do little things a little bit and then from that, come up with their results so it's well manipulated. Let's put it that way."

"Yes. I think it is if you have science and researchers that are not necessarily working for a company. I have a lot of faith in the researchers that work in universities. Because they go about doing their business and they want to really find out because they've got this... They want to just come up with good results or good research. I believe that whenever people start to work for big companies, I don't think it's as good. Because you always have the results, like the company always wants a certain result because you don't do research for the hell of it. You want it because you want to do something with it, and it's easier to manipulate that information and get whatever else you want to go with, than if you're in the University where you're really doing research for the sake of pure research. I've worked at Natural Resources Canada, and there were some well world-renowned

experts and they were not influenced by other companies wanting them to change the results of the stuff that they had discovered. This is true research. Whenever people are hired by a big company like Taggart Miller, I can't prove that, but sometimes you just make the numbers say what you want them to say. So, in general, the pure research, I believe in. Whenever people are hired by a company, I don't. I'm not as comfortable with it."

Mistrust of science in general is not a theme found that would support the NIABY explanation. On the contrary, the mistrust in this case is a mistrust of how science is being used, how much of it is being reported, which science trumps other science, and who is paying for the science to be done. There is no evidence of a monolithic mistrust of science and rather a trust of science but not in the hands of industry or government.

Again, in this case as in the others, there is evidence that supports a NIABY explanation but it is not comprehensive. In concert with the variables that are supported is a temporal aspect that the researcher claims is a very important aspect of the ontogeny of the opposition group. The NIABY variables, certainly those that deal with the production of less waste and a questionable need for landfill at all, are developed within the "research" or "digging" that the members and or media produce over time. The mistrust of governments and their interaction with industry also grows over time within the repertoire of the opposition group members. The mistrust of science is not a mistrust of scientific facts based analysis of a phenomenon rather of a non-comprehensive use of science by those who might benefit from this method of presentation.

4.3.3.7.3   Pathology of Conversation

As mentioned, the temporal aspect of the situation is critical to the understanding of the dynamics of the phenomenon. While there is evidence of some of the aspects of a NIABY explanation coming in to play in the data, the opposition group formation appears to occur quickly and based on an infringement upon the ontological security of the members. With no avenue for rebuttal or meaningful dialogue with the proponent, the opposition groups form and quickly become a formalized, concentrated, and united entity.

Data, both secondary and primary, are presented here and discussed further:

"We were brought in to the game - late into the game—and as we were brought in a second site we are now the preferred site... so here we are kinda sorta baptism by fire for us out there so getting into the process late there was no notice of commencement for us, there was no prior, you know, information—nothing to collect from—there was an open house that was held by the proponents right at the beginning not in our community but at an external remote location to inform us of the project by the way in the project charter: this is open house and consultation three although this is the first time that we heard about the project." (Dumpthedumpnow, 2013)

"During the calm before the storm, DTDN had a booth at the Russell Fair where more signatures were collected for petitions that will be formally presented in the near future. As the excitement from the fair was winding down, notice was received through the Russell Villager newspaper that Taggart Miller

Environmental Services is submitting their Terms of Reference for an Environmental Assessment of the proposed dump at BOTH sites. The storm has been unleashed!" (Dump This Dump 2, 2012a)

"So, you try to understand, is it a process, is it... Like before you get your whole head around all of that, and then you realize, when you come to terms and realize what kind of proposed landfill it's going to be, in West Ottawa, I just look at this mountain and go, really? We're going to have four times this? That scared the living shit out of me, excuse the expression though, and then the second thing that comes to mind right away, is that I have six grandchildren and I am thinking, they are going to get stuck with that stuff. I've got to get involved."

"That's a very difficult question. I found out because originally, because the landfill was supposed to be going into the Russell area which is about, I'd say, 10, 12 kilometers from our place. People don't really get involved when it isn't close to them. Then all of a sudden, for some reason Tagger Miller decided to consider a second area, and that one was close to my area and we just got word through the news. It just appeared like that. We had no idea. There had been a lot of thinking I'm sure. A lot of background work, I mean they had done a lot of work prior to this but by the time we hear it, it's at the end. Like the City of Ottawa has been approached to have a landfill blah blah blah... Then you go really? By that time, then you start looking up the information and then you see of course Russell has formed a group and then blah blah blah... So that's how it came about. Because they don't send you an official little note saying these people are

considering a landfill. By the time you get the note, it's almost too late, so they do at the public consultation phase but that's like way in into the process. So, I found out through the news actually."

The preceding data provide insight to how the information regarding the proposal was communicated—a newspaper announcement. There is also some illumination of the perspective and the abruptness of this information and how immediate action was felt necessary. Opposition or protest is deemed the first and only apparent course of action. No meaningful dialogue is available. The threat to normalcy theme then emerges. Citation of this theme are found as follows:

"Taggart Miller Environmental Services – a partnership of Taggart Construction in Ottawa and Miller Waste Systems in Markham – has land south of Hwy. 417 and east of Boundary Rd. that will be included in an environmental assessment for an industrial, commercial and institutional waste facility. The company has been planning to put the business in the north part of Russell Twp., but the company confirmed Tuesday it's throwing the Ottawa site onto the shortlist. The project is called the Capital Region Resource Recovery Centre. 'It's a definitely a punch in a gut. It caught everyone at City Hall off-guard,' Cumberland Coun. Stephen Blais said." (Wiling, 2012)

"Just the fact that to them it's not an issue, that really scares me. That would be my main fear of a landfill there. The second one would be the environmental destruction in the area. Because it is going to be destroyed. There are drains in that area that go feed off many small communities. Local farms or farmers

around there rely on their wells. So, the environmental impact will be huge. I'd have to say the soil because of the repercussions around the area and I mean it could be far out, and then the fact that like I said, the water issue and the environmental impact on the area."

"Well, to me, the concept of a community is like your extended family. In rural areas, a community is very tight knit. Everybody knows everybody and everybody is out there to look out for everyone. We work to be always to the betterment of our community. You're always looking to find out what we can add to the community. Like if there's a problem with the kids with drugs, how do you address that? What do you put in place?"

"We have no control whatsoever, none. It just pops out of the blue because they submitted something to the ministry because they've got to follow this process. So, we have no control whatsoever. We are always behind the eight ball. Never know. Never know when the next step is going to happen."

"I've been here for 40 years. When you say community, this particular landfill will be in Carlsbad Springs where I was born and raised. That's 61years ago. Edwards is like three kilometers outside and I've been here for 40 years so I've been in this area for 61 years if you're looking at the amount of years altogether."

The method of communication produces fear in the community members. Community is like a family and many of the opposition group members are long term residents in the area. The proposal represents a threat to that ongoing—a threat to normalcy. The data strongly supports the pathology of conversation explanation.

4.3.4   Discussion

In general, the results of this third case data analysis resemble those of the other two cases. The NIMBY explanation is not comprehensively supported. There is a void of elitist attitude regarding the LULU being necessary yet not desirable in the backyard of the opposition group members. The attitude regarding the need for landfill at all is, at the time of the interviews, the predominant perspective of the opposition group members. This is a great departure from the NIMBY explanation yet is in keeping with the NIABY explanation. The NIABY theory, however, is not a comprehensive explanation of the creating force of opposition. The data does not support the monolithic mistrust of science or of government.

The nuances of the mistrust of science include an attitude that the dependability of science is dependent on the party who is paying for it or disseminating it. Science in general is trusted. Mistrust in science is when trusted science is placed in the wrong hands for interpretation and communication.

The mistrust of government is nuanced and influenced almost entirely by whether the particular level of government is supportive of the cause. This is in keeping with the findings of the other case studies yet is not supportive of the NIABY explanation.

The method used by the proponent in this case to communicate the intent of the LULU construction is identical in all three cases—a newspaper announcement. The reaction to this announcement is swift and firm. The opposition group in these cases

forms immediately upon notice of the proposal in the local media. No avenue for challenge or meaningful dialogue is made available to the community members. The pathology of conversation explanation appears to be fully supported in the data. Augmented by the emergent theme "threat to normalcy," the researcher suggests that this is a feasible insight into the spark of the creation of the opposition group.

4.3.5   Conclusions

There are many similarities in the data and themes between and among the three cases. Some of the explanations appear to have similar variables and yet upon closer examination, given common data, they prove to be only predictors for one of the explanations. For example, the proximity variable that is suggested as an integral component of the NIMBY explanation is also an integral component of the "threat to normalcy" theme that augments the pathology of conversation explanation. Geography is an integral component of the normalcy, the sense of continuation that becomes threatened upon the announcement of the LULU.

So while the theme is important to both explanations, and thus supportive of them both, without the presence of the other variables, the explanations do not all "fit". The preceding pattern matching exercise produces conclusions that highly favour pathology of conversation as the best answer to: Why do community opposition groups form?

An annotated bibliography has been included in Appendix E to allow the reader to know what documents might be relevant for further inquiry.

5   Analysis and Conclusions

5.1   Introduction

This chapter begins with a comparison of the individual data analysis in each of the preceding individual case reports. This is presented to identify identical and anomalous results across the cases at the explanation level of observation. Identical results across multiple cases are synonymous with the accomplishment of "literal replication." Anomalous results are proof of accomplishing theoretical replication and provide support for the explanation with which they are associated (Yin, 2008).

The section that follows the cross case analysis deals with extant theory and suggested modifications to the theories as revealed by the cross-case comparison. While this research does not purport to be building theory it is possible that these suggestions may be of value to the reader seeking this end.

The implications section explores the question of "so what?" and how the extant research might be used in practice to improve on situations of landfill siting and other areas of use for the results.

Finally, the future research section illuminates where this insight might take the researcher. This section includes a description of the media and / or projects that are in the foreseeable future and the impetus behind these projects.

5.2   Cross-Case Comparison

5.2.1   Introduction

The case reports in this research are set up in a pattern matching format to test the data for "fit" with the common explanations from the literature regarding the formation of community opposition groups. The two most popular explanations are NIMBY and NIABY, and a third less well explored, perhaps, is pathologies of conversation.

The literature review revealed several gaps as highlighted in Figure 2. The yellow colored rectangles represent secondary areas of novelty in perspective lacking in the extant literature. These are centered on Systems thinking and specifically the use of conversation theory and pathology of conversation as novel approaches to providing insight into opposition group formation. Initially, in the exploration of community engagement in the literature, the researcher explored several definitions of community and included the first secondary novelty - that of the understanding of community as a System. The concept of Conversation Theory then was rolled into the overall understanding of community opposition for the purposes of this research.

Next, the literature review explored the various definitions of engagement and also the secondary novel concept of a Systems view to the popular typology of transitional, transformational and transactional engagement behaviours prevalent in the literature. This exploration was presented to the reader not to suggest that the extant research was incorrect but rather to demonstrate that, while referring to the extant literature, a Systems view could be consistent with this typology. The Systems view of

engagement was then rolled, as a possible perspective, into the understanding of community opposition.

Finally, the literature review explored two contemporary explanations for the formation of opposition groups, namely; NIMBY and NIABY. The primary novelty, pathology of conversation, was then introduced and is depicted as a red rectangle in Figure 2. This figure shows double headed arrows that illustrate the interaction of some of the aspects used to constitute the literature and general pattern of NIABY as detailed in the literature. The author will also detail an interplay of one of the aspects of NIMBY, that of geographic proximity, with the pathology of conversation explanation later in this analysis and conclusions chapter.

Figure 28 that follows is a graphic representation of the "fit" between the extant explanations found in the research literature and the primary and secondary data. The table depicts the three explanations (theories) for opposition group formation as found in the literature. The independent variables that constitute the explanations are listed in the left most column. The check marks represent evidence supporting the explanation from the primary and secondary research data. The interdictory symbols ⊘ denote variables that are constituent of the explanation and yet were not supported in the primary or secondary data. A detail of this follows after Figure 28.

Variables	Explanation		
	NIMBY	NIABY	Pathology of Conversation
Geographic Location of LULU	✔	⊘	✔
Acknowledged Need for Landfill	⊘	⊘	N/A
Consequential View of Future	N/A	✔	N/A
Treating Society Created Issues through Social Means	N/A	✔	N/A
Equity	N/A	✔	N/A
Lack of Participation or Meaningful Dialogue	N/A	✔	✔
Risk mitigation	N/A	✔	N/A
Moral Hazard	N/A	✔	N/A
Monolithic Mistrust of Government	N/A	⊘	N/A
Monolithic Mistrust of Science	N/A	⊘	N/A
Monolithic Mistrust of Industry	N/A	✔	N/A
Threat to Normalcy	N/A	N/A	✔
Temporal Measure of Explanation Occurrence	N/A	One Week Onward	Up To One Week
Fear and Mistrust of Proponent	N/A	N/A	✔

Figure 28 A Tabular Representation of the Cross Case Comparison Findings

5.2.2   NIMBY

The cross-case comparison of the NIMBY explanation revealed a large deficiency. The NIMBY explanation is purported to be constituted of two dependent variables—geographic proximity and an elitist attitude that while LULUs are a societal necessity, they are not wanted in the back yard of the opposition group members. While there is strong support for the geographic proximity of those who take up opposition to landfills

in all the cases reports, there is no support of the elitist attitude disputing landfills in their back yard but promoting them elsewhere.

An interesting nuance of the presence of this variable was that some members within some cases did admit to the need for landfills somewhere but qualified this perspective by saying that this was because of poor recycling and waste stream management and not that they be accepted wholesale, just not where they resided. This nuance is a far better "fit" with the NIABY explanation than with the NIMBY explanation. In Case Studies One and Three there was unanimous support of the concept outright that landfills were not necessary and that waste could be dealt with in a much more responsible manner starting at its source.

Therefore, the researcher suggests that from the data analysis the NIMBY explanation is not valid. As mentioned previously, the NIMBY explanation in some of the literature is cited as a useful tool for those who are proponents of LULU siting – for the purpose of shaming the opponents with accusations of arrogance and elitism.

The variable of geographic proximity is very evident in all the cases. This is perhaps obvious; however, further cross-case comparison reveals that geographic proximity plays a different role in each of the explanations, all of which are nuanced dependent on the pattern being matched at the time. The NIABY explanation, for example, is said to be geography independent—not in anyone's back yard.

5.2.3 NIABY

Of the explanations, NIABY is arguably the most complex. There are many independent variables that are at play in the NIABY explanation. The preceding

literature review alludes to NIABY consisting of a consequentialist view for the future, a view to eliminating society-created issues through societal means, and the variables associated with reflexive modernization, namely, equity, participation, risk mitigation, moral hazard, and monolithic mistrust of government, science, and industry. There is also an important temporal aspect to the NIABY variables that are present across the cases. This will be discussed later in this section, as it is a nuance that is of great importance to the understanding of opposition group formation.

There is little question that the case reports of this research all find a solid level of "fit" when the consequentialist/society dealing with societally created issues variable is explored. This variable is most prevalent in all the data in all the cases and is a firm support variable for the NIABY explanation. There is, however, as mentioned previously, a temporal aspect and an almost evolutionary nuance to this variable. What appears to happen with this variable is that after a short period from the formation date, this variable grows in intensity and strength within the dialogue of the opposition group and can be found within the secondary data as well, although not to the same extent. This is of interest, as it appears that the NIABY explanation is one that grows from the initial impetus for opposition group formation. The NIABY variable becomes more present, the more "digging" or research that is done by the opposition group members after the formation of the group during the normalizing of perspective and the negotiation of their reality. This is important, because while it seemingly supports the NIABY explanation, it dispels the explanation temporally as the impetus for the group formation and rather appears to be a function of the ontogeny of the group.

Another of the variables, equity, appears across all the cases and as such supports the NIABY explanation. There is ample data in all case reports in this research to suggest that the equity variable is at play. The variable is nuanced, as it takes on several different forms. Groups all feel that having to oppose large industrial proponents is a form of inequity. Also, having to deal with the waste of others is inequitable and leads to a feeling of potential for moral hazard. The perspective that arises is that the waste of others will not be reduced or dealt with in a responsible manner if the generators of the waste are not forced to deal with the repercussions of that waste. Another point of inequity expressed by all the groups in the cases is that decisions are being made by those outside of the community for those in the community. Moral hazard then emerges as a theme within the repertoire of the opposition groups. Moral hazard, equity, and participation (or lack thereof) intermingle and overlap as variables in the NIABY explanation. These variables all support this explanation.

Participation, or the lack of available means of participation, is a variable that is important both to NIABY and, as will be discussed, to pathologies of conversation. The inability of the opposition group members to participate in the siting process to any extent is a variable that is present in all cases and as such supports the NIABY explanation. The data reveals that there is no instrument for participation in the process of siting the landfills and what is made available through legislation, such as the community liaison committees, are ineffective from the perspective of the opposition group members.

Of interest regarding this variable is that at some point in the ontogeny, some of the opposition group members become mistrustful of any engagement with those who are not visibly in support of their cause. Participation or engagement at a point in the evolution of the groups is seen as a possible source of manipulation or deceit on the part of government, industry, or any other stakeholder. This is not a ubiquitous behaviour and as such should not be considered as a refutation or supporting nuance of the participation variable but was prominent enough in all the cases that it should be mentioned and regarded in considering these situations.

The variable of trust, or rather mistrust, is prominent in all the cases. While it is available, it is also a nuanced variable and does not comprehensively support the NIABY explanation. For clarity, the mistrust variable was typified as follows: mistrust in government, mistrust in industry, and mistrust in science.

Regarding mistrust in industry, this variable was present in all the cases. Generally, all participants mistrusted industry and demonstrated a perspective that industry was motivated by profit and profit alone. There was no expectation among the participants that industry might act in a responsible manner or that any of the open houses or information sessions that were held by the proponents were anything that included concern for the community. In this sense, the trust in industry was a perspective that industry could be trusted to relentlessly pursue profit and nothing else. Thus, this variable supports the NIABY explanation.

Mistrust of government did vary across the cases. This variable proved to not be a monolithic mistrust of all things government carried by all who might become

opposition group members but rather was heavily supported by the leverage of those who backed the cause and those who didn't. In Case One, the municipal governments were trusted by most based on their support of the opposition movement. This was not the situation in the findings of Cases Two or Three. In all cases, there was evidence of mistrust of the provincial government, which had the power to accept or reject the terms of reference of the proposed LULU and of course eventually of the landfill sites. There were mixed views on the mistrust of the federal government across cases, as the federal government had little or no influence in most members' minds, yet some drew positive while others drew negative trust conclusions regarding this level of government. As this is not a monolithic mistrust of government but rather a trust based on support mechanism, this variable does not support the NIABY explanation.

Mistrust of science in general is another area that does not comply with the pattern of the NIABY explanation. In all the cases, the participants supported science and the power of objective and comprehensive factual evaluation of phenomenon or situations. The mistrust of science was qualified in all cases by the view that science was to be trusted or mistrusted based on who was doing or presenting the science. The science of the proponents was taken as being sound yet incomplete. The reason suggested by the participants that the science was incomplete was that the omitted portions of the truly objective evaluation would not have supported the proponents' case for a feasible siting. In general, in all cases, the members supported the firm trust in science but mistrusted science that was paid for by any stakeholder, as it was likely to

be tainted for the above-referenced reasons. This is not in support of a monolithic mistrust of science and is thus not in support of the NIABY explanation.

Reflexive modernization has at its foundation the thought that modernity is punctuated by risk or risk mitigation. Evidence of this variable across cases is profound. Certainly, every case report demonstrates that risk mitigation is at the core of the dialogue produced by the opposition group members. Risks such as air and water quality, traffic congestion, and other environmental concerns were all top of conversation in the case data. The prevalence of this variable supports the NIABY explanation.

While NIABY is supported to some extent, there is not comprehensive support of this explanation. Equity, participation, risk mitigation, a consequentialist respect for future generations, and a perspective of dealing with socially created situations through societal adjustment are all variables that are available in the cross-case comparison and thus support the NIABY theory. However, especially important components of the trust variable are not. To add further doubt that NIABY is the answer to why opposition groups form is the apparent evolutionary characteristic of the key variable of this explanation. The variable regarding how society should deal with societal problems, like waste stream management, is not part of every member's repertoire upon arrival at the situation—at the time of first knowledge of the proposed landfill. Rather, this perspective is one that grows over time through conversation and research or information gathering. This perspective without doubt is inspired by the LULU announcement and likely to be initially related to geographic proximity (not in support

of NIABY) but it is clear that not all members arrive at the situation with this perspective as part of their conceptual repertoire.

5.2.4   Pathologies of Conversation

It is suggested in the literature that should there not be available at the time of communication a viable channel of reverse communication from receiver back to sender and a role reversal known as two-way feedback, then this conversation will end in pathology. Across all cases, the initial communication from the proponent to the community occurs as a media release in a local newspaper. The community finds out that within their domain of normalcy there is a proposal afoot to develop a LULU—a landfill in these cases. This is an especially important aspect and a supportive variable of the pathologies of conversation explanation. Certainly, the geography variable that is prevalent in the NIMBY explanation and also (although not supportive of) the NIABY explanation comes into play in this explanation. Consistent with the pathologies of conversation explanation, these cases all have no access to a viable means of feedback to what amounts to a foreign entity proposing an action that will disrupt local normalcy: the ontological existence is threatened.

The cross-case comparison identifies, also, that in each case there is no vehicle available for meaningful dialogue. The announcement is made and without a domain of engagement and conversation, meaningful and impact-rich dialogue, the opposition groups initiate immediately. This time component is crucial to the understanding of the creation and impetus for the formation of the opposition groups and is consistent in its support across all the cases presented in this research.

While some of the variables of NIABY are prevalent within the data, it is suggested and strongly supported that this is an evolutionary process toward perspective development. Other NIABY variables are just not consistent with the support of the NIABY explanation and do not evolve.

The pathology itself appears as a one-way "it"-based communication misplayed through the introduction of the information regarding the LULU and results in a rapid organization of opposition groups as a response. The response is fueled to satisfy the fear and mistrust created by the means of the message delivery and not necessarily carried to the situation as an established "real" by the individuals who relinquish their autonomy to organize opposition groups. This cross-case analysis is in full support of the pathologies of conversation explanation.

5.2.5   Conclusions

Figure 2 illustrates the areas of novelty that are explored within the domain of community opposition and community engagement. A Systems view was adopted and synthesized to attempt further insight into this domain. Conversation theory and pathologies of conversation, until this research, have not been used as an explanation toward the formation of opposition groups for landfill siting. Two explanations identified in the literature (NIMBY and NIABY) were used along with pathologies of conversation to identify matching patterns in the primary and secondary data.

Figure 28 summarizes the areas of "fit" between the data and the explanations. It is concluded by the researcher that the best "fit" between the secondary and primary data and the extant patterns is that of the pathologies of conversation. While NIABY is a

close second regarding "fit" there are definite inconsistencies between the data and the underpinning aspects and variables of this explanation. NIMBY on the other hand is not supported beyond the geographic proximity variable which also comes into play regarding the pathologies of conversation explanation.

Of additional interest to this research is the apparent strength of insight that aspects of each particular explanation lend to the explanation of the phenomenon at hand. In other words, instead of adhering strictly to the methodology of pattern matching in hope of identifying one explanation with perfect fit it is suggested here that a combination of the aspects of each explanation may be a better explanation of the phenomenon. As mentioned at some length previously, the spatial or geographic aspect of the siting plays an essential role in community opposition group formation. The researcher suggests that, while being a very good fit with the data, the pathologies of conversation explanation is highly reliant on the geographic proximity of the LULU siting. The geographic proximity that is an essential aspect of the NIMBY explanation appears to be an essential component toward opposition group formation. The threat to ontological security occurs based in a geographic domain where home, community, heritage and family reside physically and conceptually.

This stated the absence of meaningful dialogue and the means through which the LULU is presented to the community causes pathology. Within this geographic domain then, pathology of conversation it is suggested promotes the speed with which the opposition groups organize and the researcher posits contributes to the depth of conviction with which the opposition group founders approach the situation. With no

meaningful vehicle to converse with the threatening stakeholders the opposition groups form quickly and intensely and begin an ontogeny toward a highly insular and intense activist agenda.

The aspects of NIABY that are identified earlier in this research as prevalent in the data seem to develop after time in an evolutionary manner. Of particular interest is the interplay of certain aspects of reflexive modernization. While there does not seem to be a monolithic mistrust of government and science there does seem to be a monolithic trust that industry will be motivated entirely by the profit fetish. In addition to this part of reflexive modernization the threat to ontological security or normalcy is a key concept of this theory and appears in the data as a prevalent concept contributing toward the formation of the opposition groups.

5.3   Theory Modification

5.3.1   Introduction

This research was carried out with the prime interest in trapping a contemporary view of community opposition groups and more specifically of what mechanisms of engagement were at play and responsible for the manifestation of such groups. It was posited that if these mechanisms could be identified that industry, government and community strategists would be informed more fully as to what types of behaviours to avoid or to pursue in the orchestration and planning of successful collaborations.

The previously detailed pattern matching exercise has revealed that the pathologies of conversation theory is a good "fit" with the case study data. Beyond this

the reader is encouraged to include the spatial aspect of NIMBY as being essential in the reasoning for the formation of the opposition groups. The literature available regarding this phenomenon has been synthesized with a Systems perspective in an effort to further insight into that which has gone before and the ontological perspective of this research. The insight provided through this exercise lends a slightly different perspective to the extant typology citing engagement as being transactional, transitional or transformational.

In addition, to the insight provided by a Systems perspective and the suggestion that conversation theory and pathologies of conversation be understood and employed while interpreting the phenomenon, the researcher suggests that a process of formation be considered when observing manifestation of the opposition groups. This section explores the value of the Systems perspective to the extant literature and the emergent process of formation that this research suggests.

5.3.2   Synthesis with Extant Literature

The extant literature reveals a typology defining community engagement as being one of three types; transactional, transitional and transformational. Transactional engagement is typified as a one-way communication from industry to the community. Trust development in this type of engagement is not prevalent and control of the situation is held solely by the proponent of the LULU. In addition, any learning transfer occurs from industry to community only. This research reveals that this is in close keeping with pathology of conversation.

The introduction of the proposed landfill in all three cases is made through the local media with no vehicle for meaningful dialogue, feedback transmission or learning to be carried out from the community to the proponent. The similarities in the pathologies of conversation explanation, found to be a good fit in all of these cases, and the transactional type of engagement typified in the literature are profound. The value of this revelation is the suggestion by the researcher that transactional engagement, the least successful type, is likely to be best described as pathology of conversation. One way "it" based communication with no channel for meaningful feedback contributes to failed engagement.

The researcher suggests further that this type of engagement is contributory to the manifestation of the opposition group. Some members of the community are motivated to action through a threat to normalcy brought about as a direct result of the type of communication used. The pathology of conversation is one that manifests as fear, mistrust and a call to action and organization. This is a very insightful aspect of this research in that it provides an extension of the extant typology by giving sound reasoning behind why this type of engagement is least successful and how, grouped with the immediacy of the spatial aspect, it actually leads to the manifestation of opposition groups – at least in these three cases.

5.3.3   The Process of Opposition Group Manifestation

These research findings have arrived stepwise at a conclusion regarding some popular explanations for the understanding of "why community opposition groups form." The researcher suggests from the data analysis in the individual case reports and

then the cross-case analysis that the best explanation is pathologies of conversation, bearing in mind that these groups all form in very close proximity to the participants homes. The following Figures provide a graphic representation of the researcher's interpretation of this phenomenon and as such answer the question pictorially along a timeframe.
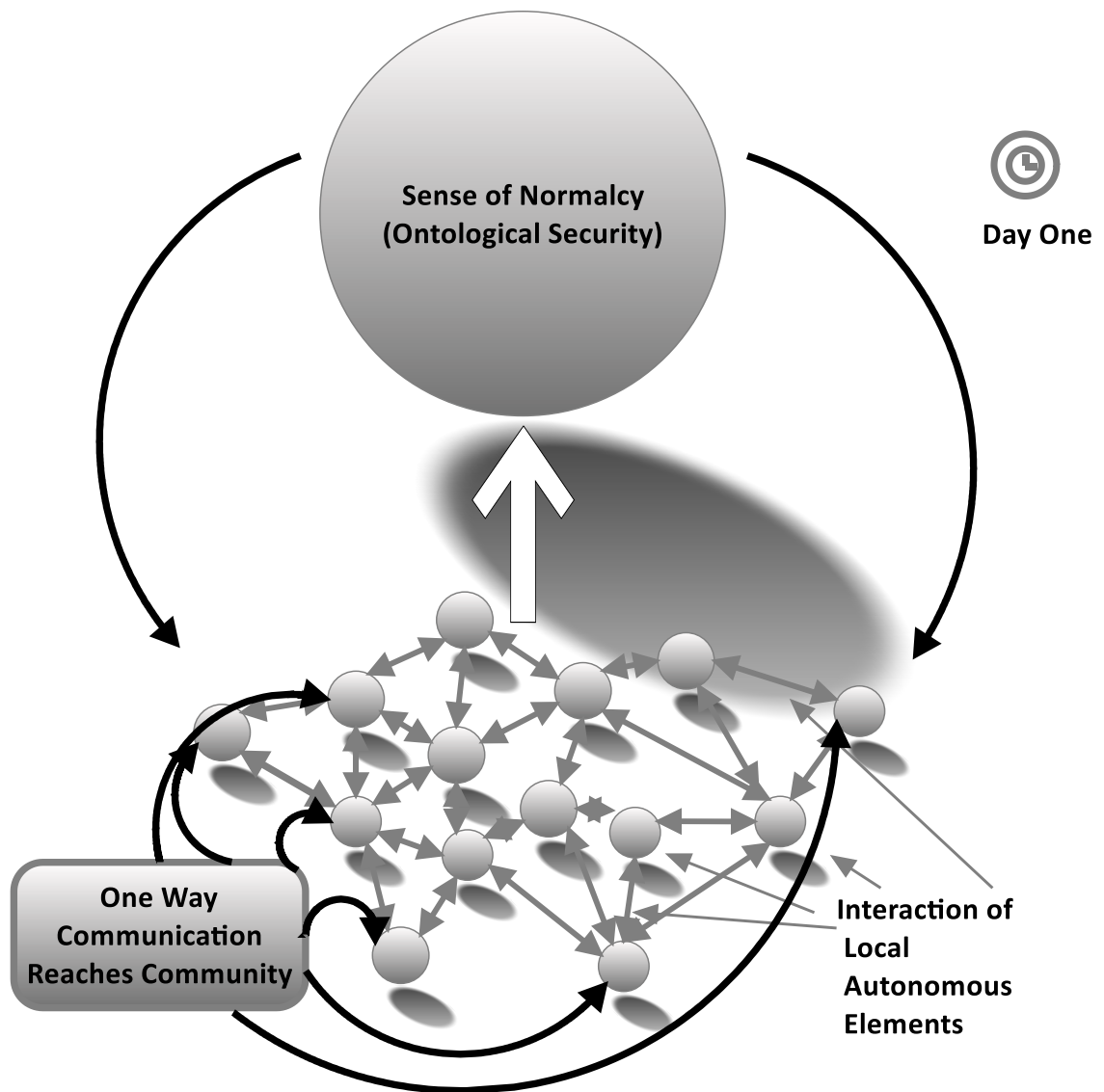
Figure 29 Phase One of Pathologies of Conversation and formation of the COG

Sense of Normalcy (Ontological Security)

Day Two Up To One Week

Threat to normalcy inspires some elements to organize

One Way Communication Reaches Community

Interaction of Local Autonomous Elements
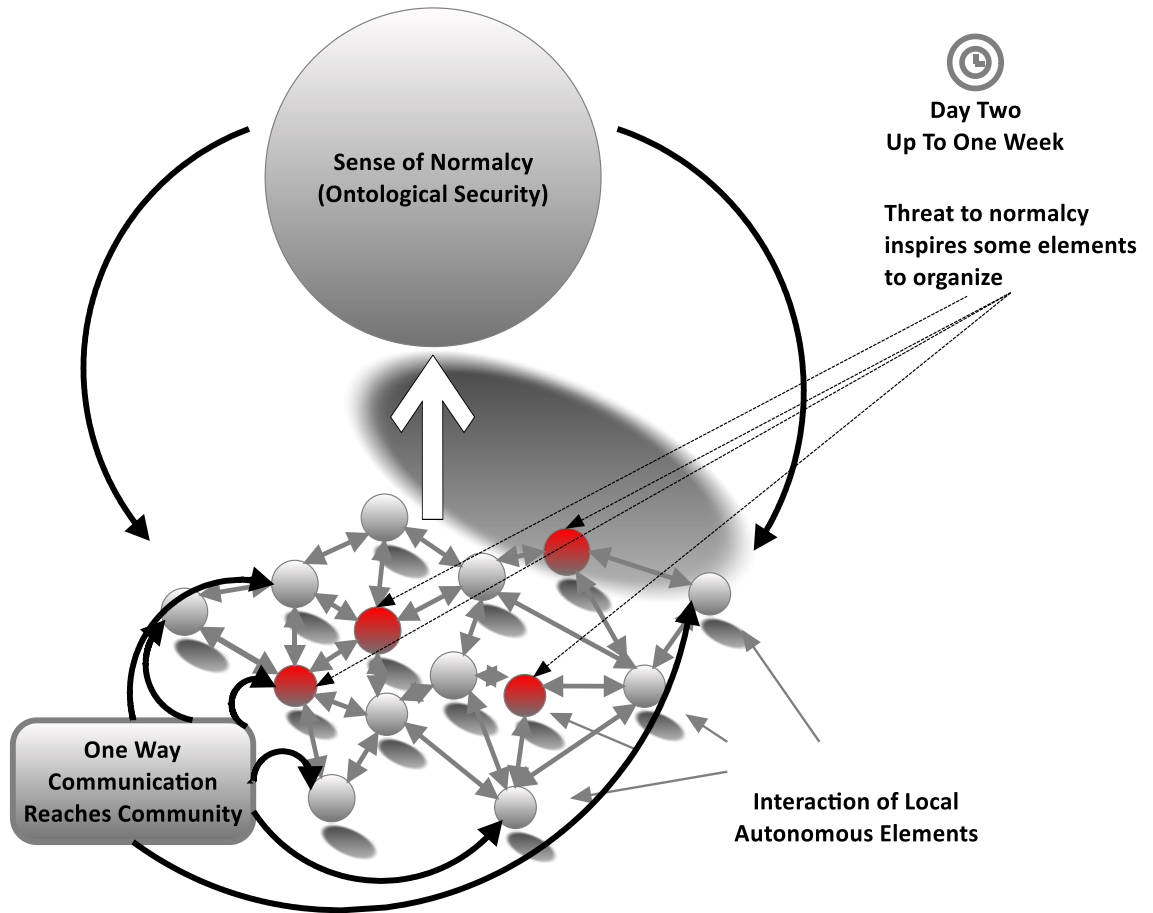
Figure 30 Phase Two of Pathologies of Conversation and formation of the COG
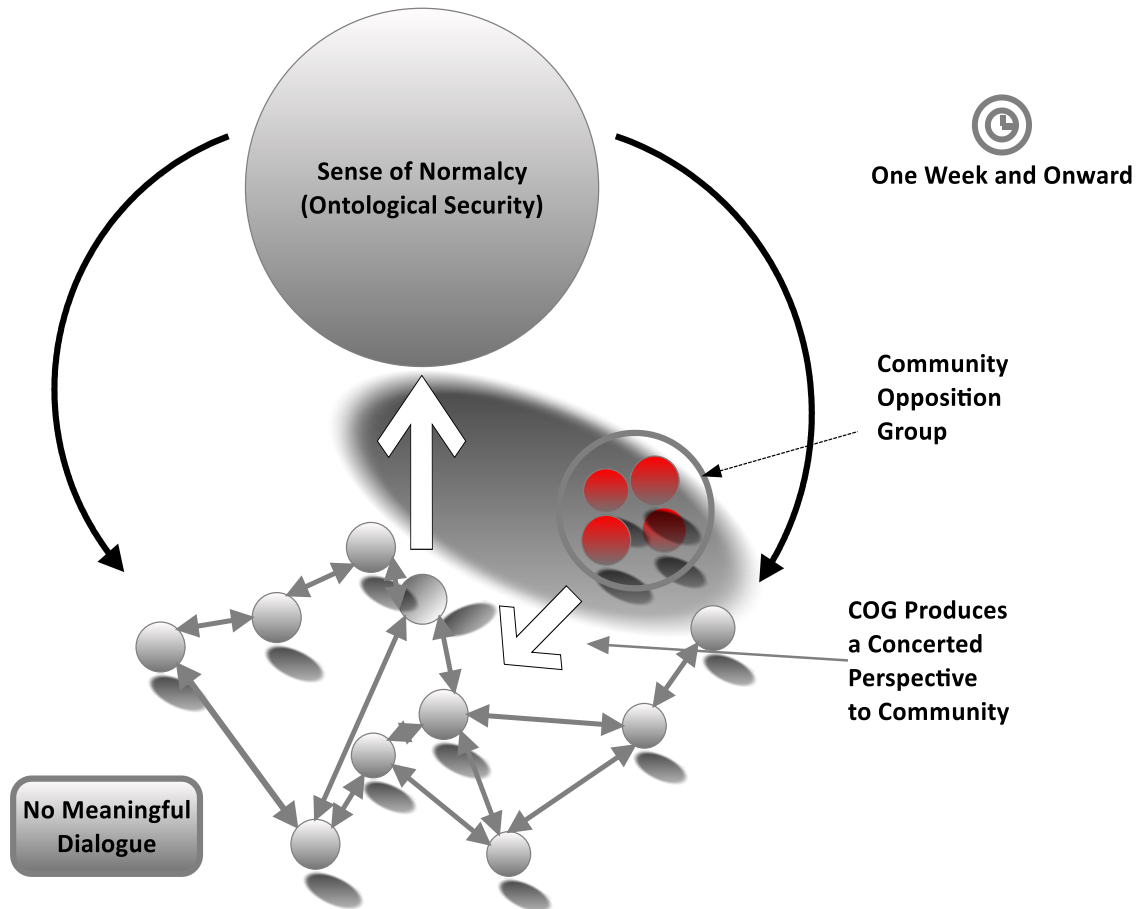
Figure 31 **Phase Three of Pathologies of Conversation and formation of the COG**

Figure 29 depicts the condition of the community and its regenerative sense of normalcy through interaction (conversation) at the time that the announcement is made in any of the cases in this research. Remembering that in all the cases in this research, the initial information dissemination was carried out through a newspaper article. The announcement is made and makes its way to the autonomous elements of the community—the community members. This perturbation is cause for a reaction in the community that in all cases was immediate. Within the course of a few days to a

week there is a reaction to the perturbation in the form of organization. Figure 30 depicts this reaction.

In this figure, we see the dissemination of the information and while not all community members react to the threat to normalcy, some do. Fear and mistrust are generated almost immediately and without an outlet for meaningful dialogue with those who have initiated the threat, a dialogue begins among the community members. The dialogue is based in and reinforces the concept of the threat to the ontological security seen previously in Figure 29 in a much more stable state. The researcher suggests that this phenomenon is at the core of the "social amplification of risk" noted by those who study, research and report on risk communication (Kasperson et al., 1988; Petts & Niemeyer, 2004; Ortwin Renn, Burns, Kasperson, Kasperson, & Slovic, 1992).

Communication theory, based on a linear evaluation of one-way communication and signal to noise ratio is not appropriate to describe this phenomenon comprehensively. The amplification suggested here is arrived at through the understanding of conversation theory and the contrapuntal theory of pathologies of conversation. How the message is delivered provides a sufficient threat to normalcy that some community members leap to action and begin a conversation of their own inspired and based upon fear and mistrust.

In Figure 31, we see the organized community opposition group on its conceptual journey with conversation focused entirely on a resurrection or restoration of normalcy. The dialogue is based in fear and mistrust caused by lack of meaningful dialogue with those foreign agents of disruption—in this case, industry and non-

supportive stakeholders such as government. The researcher suggests that at this point it is reasonable to surmise that most of the opposition group members are beyond any attempt at meaningful dialogue and are entirely "cause"-focused. In all three cases, some potential case study participants did not participate because they feared that this research might in some way help landfill proponents in making siting situations easier. Also, when questioned about dialogue with the proponents, most members in all three cases, made mention that they believed that the proponent would only use any dialogical exchange against the opposition group and their cause.

In all three cases, after the formation of the opposition group, the dialogue begins to show signs of a NIABY perspective. Although the researcher suggests that this is not the answer to "why the COG forms," it is important to note that as time passes some of the variables of the NIABY explanation become recognizable within the dialogue of the members.

The explanation that is concluded here of "why COGs form" may be of use, as alluded to previously, to those who research risk communication. There may be value in the introduction of conversation theory and pathologies of conversation to the academic domain concerned. The researcher suggests that these conclusions be considered in further research within the domain and it is hoped that they might provide insight into a complex domain of study. This, in the researcher's opinion, is the primary contribution toward the extant body of knowledge.

5.3.4   Conclusions

Of primary concern to this research was the identification of the mechanisms that produce community opposition groups. The researcher suggests that the extant typology of engagement can and should be related to conversation theory and pathologies of conversation. The transactional behaviours of engagement should be seen as most closely related to the pathologies of conversation explanation. One way "it" based communication with no means for meaningful dialogue manifests as fear and mistrust within the communities in this research.

Further, when one uses the pathologies of conversation explanation grouped with the data in this research and with the concept of lack of ontological security brought about by this type of communication, one arrives at the observation and manifestation of the process of opposition group formation. Opposition groups are pathology of conversation grouped with a close geographic aspect and organize rapidly as a function of how they are engaged.

5.4   Implications

5.4.1   Introduction

Although this research is not generalizable across a population, the value of its analytical generalization is the point of discussion in this section. The establishment of the matching of the pathologies of conversation theory to the data of three cases and the consistency across these cases, it is suggested, is sound reason to extend these findings to the proposition of strategies for community, government and industry for use in mitigation of opposition. If one accepts the findings of this research as valid then

certain structures or platforms can be premeditated in the course of formulating strategies for community engagement attempts. Identification of the pristine attributes of two-way meaningful dialogue combined with an understanding and avoidance of pathology created by avoiding this type of platform are presented here.

5.4.2   *Strategic Implications Derived from the Research*

Obviously, the research carried out here is most applicable to the community engagement and risk communication domains as mentioned previously. Further to this, an understanding of the mechanisms which appear to contribute to the formation of opposition groups, lends powerful insight into how to avoid them in the formation of community engagement strategies.

 Conversation theory is already used extensively in the domain of design (Dubberly & Pangaro, 2007, 2009, Pangaro, 2008, 2011a, 2014) and education (Scott, 1987, 1997, 2001b, 2002, 2007). However, outside of this domain lie a great number of collaborative efforts that could benefit from this research. Advancing the understanding of human interaction using conversation theory and pathologies of conversation would be a useful endeavour for those concerned with organizing such platforms of interaction. More acutely and important to the subject matter of this research, it is suggested that policy makers make use of this research to gain insight into a more ethically feasible approach to siting LULUs

The current structure of the process for environmental assessment and application for LULU's such as the landfills associated with this research are structured in such a manner that promotes the exact pathology identified and concluded in this

research. The process is proponent (industry) initiated and as such shifts the burden of

control entirely in the possession of the proponent. Any organization intending to

construct a landfill is required to apply for and begin a process of substantiating the

legitimacy of the proposed landfill based on criteria as set by the Ministry of the

Environment and Climate Change (MOECC). It is important to recognize that the MOECC

is not an entity whose mandate is to necessarily protect the environment but rather to

enforce compliance with environmental law. However, when the environmental law and

process is flawed this does little to ensure a fair and equitable social process. This

research suggests that the process depicted in Figure 32 is by design resultant in the

manifestation of community opposition group formation.

Regardless of the level of environmental sensitivity, complexity or public concern

the processes start with a public notice of the commencement of the project. The

current MOECC guideline for minimum requirements for community consultation states

that an announcement of commencement of the proposed undertaking is to be

published in a local newspaper. The implication of this grouped with the findings of this

research suggest then that the exact mechanism that causes the manifestation of the

community opposition group is mandatory through the process designed and enforced

by the MOECC.

Further to this shortfall is the lack of community involvement in meaningful

dialogue with the proponent or the government during the balance of the process.

While the flow chart in Figure 32 suggests community "consultation" activities the

Environmental Assessment Act ("Environmental Assessment Act, R.S.O. 1990, c. E.18,"

n.d.), the mandatory community consultation guidelines and the results within this research do not demonstrate any evidence of the establishment or desire to establish a meaningful two way dialogue as a function of the process. In other words, the process itself is not only flawed in its method of mandatory announcement of the proposed undertaking but rather it does not at any point encourage meaningful two way dialogue that would empower and engage the community in any way.

Therefore it is advised by means of this research's conclusions that the MOECC amend the Environmental Assessment Act and the process for community consultation to include the production of a platform of engagement by the proponent that is modelled on meaningful dialogue with the community and that this production be a mandatory first step in the process. Also, that this first step replace the newspaper announcement of the undertaking. It is suggested by this researcher and supported by the research into successful collaboration and risk communication that this is the most ethical and equitable method available for these situations.
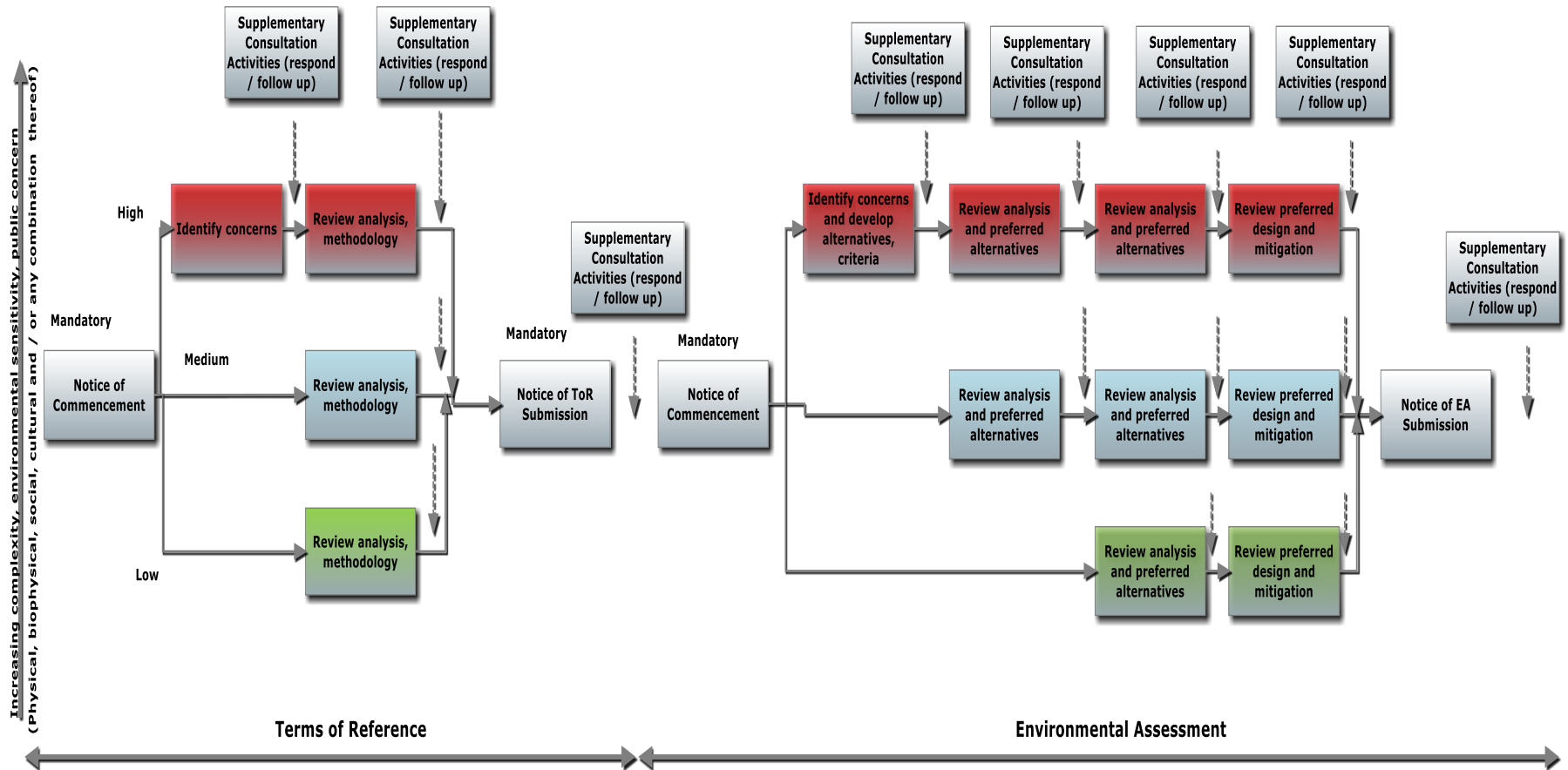
Figure32 MOECC Minimum Consultation Requirements as adapted from (Ontario Ministry of the Environment and Climate Change, n.d.)

The domain of social impact assessment calls for the social element of sustainable development to be included in environmental risk evaluations (Barrow, 2010; Mahmoudi, Renn, Vanclay, Hoffmann, & Karami, 2013; Prenzel & Vanclay, 2014). It is suggested that knowledge of conversation theory and pathologies of conversation would augment policy revision and development at the very least in the Province of Ontario. Industries that desire to operate in a socially responsible manner should look to this research for direction in how to improve upon their approach to siting landfill undertakings. While the MOECC guidelines and the Environmental Assessment Act cite minimum requirements for consultation this does not imply that greater lengths can be sought to satisfy the corporate social responsibility agenda of the organization. This research identifies the mechanisms that manifest as pathology to conversation. What is desirable then in formulating a strategy for engagement is to follow a pristine model of conversation and the implications of conversation theory. The organization should devise a method or platform from which to encourage meaningful dialogue and be prepared for the control deficit that will come with this type of relationship.

While it is probable that this will seem unfamiliar territory to some organizations the step toward sustainability and corporate social responsibility is one that requires novelty and courage. Those who seek a social license to operate are best served to be as inclusive and conversational as is possible in order to achieve a truly collaborative undertaking. Reliance on current legislation is not sufficient to arrive at an ethical and equitable end. The secondary research in the literature review of this paper alludes to transformational behaviours as being those which are demonstrated to be the most

successful in community engagement and collaboration. Transformational behaviours are those which are most closely associated with conversation theory and as such confirm the researchers claim that conversation theory be a model that most influences engagement strategy for the socially responsible corporation.

Pathologies of conversation as identified in this research are to be, by design and practice, avoided by the successful organization during the process of community engagement. Knowledge of the potential for pathology and the ideal model of conversation should be the guide for the highest probability of success whilst formulating and operationalizing the engagement strategy. This said, conversation theory allows for and suggests the ultimate in ethical agreement as the end result of its process of reality negotiation however, one must never lose sight of the possibility of the agreement to disagree.

5.4.3   Conclusions

The researcher's path toward this thesis began with the intention of pursuing an understanding of human collaboration. The hope was based on a belief that sustainable development would require human collaboration to manage wicked problems (Dubberly & Pangaro, 2007). Some recent Canadian research cites the reasoning behind community opposition to LULUs as a function of "restrictive communication / consultative practices" (Cleland, Bird, Fast, Sajid, & Simard, 2016), yet siting practices and collaborations country-wide and arguably the world over continue to remain unchanged and somewhat antiquated in their structure. New thinking is required and this research and future research are the next steps forward.

If one is to accept this research as an expression of a reality that exists at least between the three case studies then one must conclude that new thinking would include the consideration and application of conversation theory within this domain. The implications then for government, industry and community are that increased probability of agreement is attainable and available. The step forward is to embrace conversation theory in developing collaborative strategy in order to avoid pathologies of conversation.

5.5   Future Research

This section describes the researcher's intentions for further research. The preceding recommendations for mitigation of conflict in siting situations imply the use of a platform of interaction is employed. While this is desirable such a platform is not readily available. It may be a great deal to ask that industry and governments formulate such a platform and somewhat redundant for said platform to be developed for each individual siting undertaking. Therefore it is this researcher's intent to look into the development of such a platform, based on conversation theory and the findings of this research.

In addition to the development of a platform it is the researcher's intention to publish derivative papers based on the findings found in this dissertation. It is felt that these publications may be of further use to those within the domain of collaboration and risk communication.

Finally, the researcher intends to explore further whether the transformational type of engagement behaviour cited throughout this paper as the most successful form of engagement is actually a derivative of true conversation. Figure 18 outlines the similarities between transformational behaviour and conversation theory. Empirical evidence of such similarities would serve to strengthen this suggestion. From that the researcher proposes that sources of meaningful conversation and methods of conversation promotion be developed.

5.6   Conclusions

This chapter included a cross case comparison in which the analysis of the three individual case studies was compared and contrasted. The explanations NIMBY, NIABY and pathology of conversation were then used once again in a cross case pattern matching exercise in attempt to identify consistencies and inconsistencies in the data across cases. This exercise revealed that the strongest support for the identification of the mechanism responsible for the manifestation of opposition groups is the pathologies of conversation explanation grouped with the proximity of the siting locations to the participant's homes and communities.

This revelation leads to a modeling of the process through which the opposition group forms. The reaction to the announcement of the proposed undertaking and the lack of a constructive and effective means for feedback produces a level of fear based on the threat to normalcy of some of the members of the community. The reaction is swift and within a few days opposition has organized.

This model can and it is suggested should be used to modify existing legislation which seems designed to create opposition instead of mitigate it. Legislation would be best served by modifying the process of community consultation to begin with a platform for ethical and effective two way meaningful dialogue – such as that suggested by conversation theory. As mentioned previously, conversation theory forgoes the control requirement of the law of requisite variety by cycling the roles of controlled and controller. This provides a system that balances the control and maximizes choice – which provides the most ethical of design criteria for engagement systems.

Finally the researcher posits future research to include the dissemination of these findings through traditional channels of journals and conferences. In addition to this the researcher suggests that there may be great value in creating a guideline for platform formulation based on these findings and the model of ethical agreement suggested by conversation theory.

6   Appendices

6.1   Appendix A: Case Study Protocol

6.1.1   Case Study Protocol

6.1.1.1 Case Study Overview

The primary objective of this case study is to collect interview data (primary) and secondary data related to the behaviours, perspectives and attitudes of the forming members of opposition groups in landfill siting situations. Secondary data was collected from websites, newspapers, newsletters and other media sources in order to support or refute through triangulation the claims and statement found in the primary interview data.

6.1.1.2 Field Procedures

Potential participants are approached by email and / or contacted by telephone initially to enquire about interest in the project. An informed consent form is then emailed to the participants and agreed to before a telephone or live interview is conducted. Secondary research is identified in the public domain and used with proper citations as to the source and author where applicable.

6.1.1.2.1   Case Study Questions

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

The following is a list of questions that were asked of the interviewees with underpinning data desired from the questions. While not to be used as a motivation for leading the interviewee, these notes were useful in conducting the interview to ensure that the data collected at the time was pertinent to the research and that the interviewee understands the questioning. This document was for the interviewer and not shown to the interviewee.

1. How did you first come to know of the landfill proposal?

    a. Communication question and background to how opposition group members are alerted to community happenings. Does the information flow from other members of the community, the corporation, the media?

    b. What is the initial reaction to the news of the development?

    c. How does communication "flow" through the community?

2. When did you first come to know of the landfill proposal?

    a. Collecting a temporal aspect of the communication of the development and comparing this with others

    b. Does the news inspire immediate action - comparing the inception date of the Community Opposition Group (COG) with this timing?

3. How long after you knew of the proposal did you decide to become involved in your group (OPAL, ND, CRCCPE)?

    a. Secondary temporal collection, is the reaction immediate?

    b. Did the COG element seek further information or further conversation before acting?

    c. Did peers get involved with convincing the element to become involved?

4. Why did you become involved with your group (OPAL, ND, CRCCPE)?

    a. A direct application of the research question intended to inspire a basis for pattern formation

    b. Is there a history of involvement?

    c. Was this based on a sense of threat to equity, identity, and risk mitigation?

5. Can you describe in detail the events leading up to your involvement?

    a. A checking/cross reference to previous questions to triangulate and deter memory failure distortion

    b. Were others involved?

    c. Was family consulted?

    d. What was the general mood and feeling portrayed during the lead up to the formation of the COG

    e. Do we see the "social amplification of risk" occurring through dialogue with other community members?

6. How close do you live to the proposed landfill?

    a. A direct collection of proximity to support or dispel involvement based on NIMBY

7. How far away from the landfill would you say your house would have to be before you felt you would no longer oppose it?

    a. A second more detailed collection of the nature of NIMBY if present

    b. How selfish is the attitude of the element?

8. Can you describe in detail what your level of trust is for the company proposing the landfill?

    a. Develop a profile within the COG of trust for the development company

    b. Is there or was there a temporal aspect to trust (i.e. an initial then degrading trust or a building of trust with familiarity)?

9. Can you describe in detail what your level of trust is for the local government involved with the landfill? Provincial? Federal?

    a. Develop a profile within the COG of trust for the levels of government involved

    b. Is there or was there a temporal aspect to trust (i.e. an initial then degrading trust or a building of trust with familiarity)?

10. How would you describe your confidence in the science that has been presented as part of the landfill siting thus far?

    a. Reflexive Modernization and an addition to the trust profile of the elements and COG's in general

11. Can you explain your confidence level in science in general?

    a. A general lack of trust in science would be an explanation of the lack of trust regarding the landfill

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

12. What is your main point of opposition to the landfill?

    a. Collect data concerning landfill opposition in the physical and or philosophical domain

    b. Is opposition concerned with pollution, economic, equity, fear, etc.?

13. Can you detail how well the landfill company listens to your concerns?

    a. A communication quality question to discern whether there is a feeling of being heard

    b. Is communication one-way or two-way or conversational?

14. Do you feel the process has been fair in terms of the community influencing the decisions being made surrounding the landfill? Why or why not?

    a. Is there any sense of empowerment?

    b. Is there a link between sense of empowerment and the reaction of the formation of the COG?

15. Can you explain why or why not there is a need somewhere for landfills?

    a. Related to the selfishness implied by the NIMBY explanation

    b. Has the element considered the societal need and do they have well-formulated alternatives or strategies for managing waste?

16. Can you detail any times when industry has not been open to hearing your concerns?

    a. Communication data what is the quality of engagement as perceived by the element

17. Can you explain to me what community means to you?

    a. Building the stable concept of community within each COG

    b. Is there a hidden source of threat or loss perceived through development of the landfill?

18. Can you explain to me what Industry means to you?

    a. Build a stable concept of industry

    b. Is there a hidden or general feeling of dislike regarding industry?

19. Can you explain to me what landfill means to you?

    a. Build a stable concept of landfill

    b. Is there a general or hidden feeling of dislike of landfill (NIABY)?

20. How did you decide to form your group (OPAL, ND, CRCCPE)? Was there a method or a template that you used to design the organization?

    a. Is this something that the element has been involved with before? NIABY

    b. Is this a grassroots activist organization or a more spontaneous formation of COG?

21. Why did you form the organization?

    a. A direct research question - important for triangulation

    b. Is the motivation similar or has it changed through the course of the interview?

22. Do you agree with all the decisions made by the organization?

    a. A test of the solidarity of the COG

    b. Evidence of the collective concept of CO within the elements of the group

23. Do you sometimes compromise within the organization to maintain a sense of comradery and strength in the outward appearance of the organization? Why or why not?

   a. The social mechanisms that underpin the formation of the COG

   b. The social justification of the relinquishment of personal autonomy by each element

   c. The depth of solidarity and structure of the COG

24. Have you been involved in community opposition groups before? Why or why not?

   a. A triangulation of the presence of community activism as a pattern for formation NIABY

   b. A sense of the level of satisfaction and sense of community of the element

25. Do you feel the landfill company will give back to the community? Why or why not?

   a. Quality of engagement

   b. Evidence of the role of compensation and the effectivity of it in its presence

26. Do you feel that the landfill company is building bridges of interaction with the community? Why or why not?

   a. Quality of engagement

   b. Quality of communication

27. What is the main way that the company communicates with the community?

    a. Is there evidence of a breakdown in the communication or a pathology?

    b. Quality of communication

    c. Evidence of conversation?

28. Can you detail what group has had the majority of control over the landfill development?

    a. Evidence of empowerment and how was empowerment achieved

    b. Temporal aspects of the opposition act

    c. Sense of where balance of power resides

29. Will anyone other than the company benefit from the landfill? Why or why not?

    a. Economic justification for the landfill

    b. Trust in corporations

    c. NIABY and NIMBY implications

30. Do you feel your community deals with its garbage as well as other communities? Why or why not?

    a. Evidence of NIMBY and NIABY

    b. Is there a perspective of equity infringement?

31. How long have you lived in the community?

    a. Develop a profile of the sense of community and whether time in the community is a contributing factor of NIMBY?

    b. Is time in the community a contributing factor toward COG formation?

32. Would you consider leaving the community if the landfill is approved? Why or why not?

    a. What is the depth of opposition feeling regarding a defeat of the current perspective of the element of the COG?

    b. Is this a life altering "stand" that the element is taking?

33. Do you fear for the future of your community? Why or why not?

    a. This is a tie in with reflexive modernization and the understanding of the deferral of current responsibility to future generations

    b. Is there a feeling of community that has been threatened?

34. Do you have any other comments that you would like to make concerning the community opposition group, the company, the government, or anything else that we have covered today?

6.1.1.3 Guide for Case Study Report

What follows is an outline and guide for the reporting of the case studies in this research:

1. Introduction

2. Context of Data Collection

3. Issues Encountered

4. Data Analysis

    a. Method for Analysis of Documentation—newspapers, industry correspondence, meeting minutes, websites, etc., archival records and researcher's notes

   b. Emergent Themes from Documentation, Archival Records, and Researcher's notes

   c. Protocol for Transcription

   d. Triangulation of Transcription Data with Documentation, Archival Records, and Researcher's Notes

   e. Coding Procedure and Protocol

   f. Emergent Themes

   g. Statement of Extant Explanations (Theory)

   h. Comparison of Extant Explanations with Emergent Themes (Pattern Matching)

5. Discussion

6. Conclusions

7. Annotated Bibliography of Documentation, Archival Records, and Researcher's Notes

6.2   Appendix B: Codebook

DOCTORAL RESEARCH

Nodes

Name	Description
Alternative Means of Disposal	
Benefits to the Community	
Benefits to the Firm	
Communication Methods	
Compensation	
Concept of Community	
Concept of Industry	
Concept of Landfill	
Concept of Opposition Group	
Conversation Pathology	

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

Name	Description
Cultural Borders	
Depth of Commitment to Opposition	
Dialogue	
Empowerment	
Engagement Methods	
How did the group start?	
How long after knowledge did you take action?	
I/we vs "it"-based Conversation	
Key Issue of Opposition	
Moral Hazard	
NIABY	
NIMBY	
Previous Activism	

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

Name	Description
Quality of Engagement	
Transactional	
Transformational	
Transitional	
Reflexive Modernization	
Equity	
Participation	
Risk	
Threat to Normalcy	
Trust	
Trust and Government	
Trust and Industry	
Trust and Media	
Trust and Science	
Relinquishment of	

PATHOLOGIES OF CONVERSATION AND LANDFILL SITING

Name	Description
Autonomy	
Sense of Community	
Sense of Paranoia about Communication	
Social Borders	
Symbolic Borders	
Ontogeny of the Concept of Opposition	
Why did the group start?	
Why did you form the OG?	

6.3 Appendix C: Annotated Bibliography Case Study One

6.3.1 Annotated Bibliography Case Study 1

Beck, U. (1992). *Risk Society: Toward a New Modernity*. Newbury Park: Sage publications.

This seminal work of Beck's explores and begins to define modernity and what he terms the risk society of modernity. There is a pertinent exploration of societal attitudes toward government, science, and trust that is of pertinence to this research.

Beck, U., Bonss, W., & Lau, C. (2003). The Theory of Reflexive Modernization: Problematic, hypotheses and research programme. *Theory, Culture & Society*, *20*, 1–33. http://doi.org/10.1177/0263276403020002001

This is a paper exploring the theory and concepts underpinning reflexive modernization as a theory. Beck and Giddens developed very similar theories coincidentally at close to the same time. Reflexive modernization underpins much of the theorizing of NIABY, which is a primary explanation for opposition group formation.

Crellin, Sarah. [Moondancer77rocks] (2012, April 2). Stop the Dump.mov. [video file]. Retrieved from https://www.youtube.com/watch?v=F-L8mt1Lazg&feature=youtu.be

This is an amateur post in YouTube dating to April 2, 2012. The focus of the video is as a protest and reflects a great deal of research already having taken place by the opposition group members. Beyond the timing of the production of this video, less than a month after the announcement, it provides a video pictorial of the history of the community and reflects the long-standing sense of normalcy or ontological security that is being threatened.

Crellin, Suzanne. (2012a, September 17). How do you stop a dump? [letter to the editor]. *Ingersoll Times*, p. 1. Ingersoll. Retrieved from http://www.ingersolltimes.com/2012/09/17/letter-how-do-you-stop-a-dump

This is an opinion piece published in a local newspaper. Of significance with this piece is the depth of research that has gone before it, as revealed in the text and the perspective, which is of comprehensive opposition to the landfill.

Dumpthedumpnow. [Dumpthedumpnow] (2013, December 5). Dump the Dump Long-Format Video. [video file]. Retrieved from https://www.youtube.com/watch?v=EacPqjZcADs&feature=youtu.be

Ontario is Going to Waste Media Conference, Ottawa, Dec 2, 2013. Five Ontario communities and an environmental lawyer join forces to fight for sweeping changes to landfill regulations. This video shows all the opposition groups in this thesis as well as two others that are not involved.

Hölmstrom, B. (1979). Moral hazard and observability. *Bell Journal of Economics, 10*, (1), 74–91. http://doi.org/10.2307/3003320

This article contains a good description and definition of the concept of moral hazard. Not surprisingly, it is an economics paper, as moral hazard is a popular economic concept.

Farlow, M. (2013). LETTER: Still unanswered questions about landfill | Ingersoll Times. Retrieved from http://www.ingersolltimes.com/2013/04/24/letter-still-unanswered-questions-about-landfill

This letter to a local newspaper chronicles the interaction or lack thereof between the proponent business and the Community Liaison Committee. It is written by one of the participants in the CLC. Although later in the process and much after the formation of the COG, the letter is a prime example of the lack of participation and empowerment afforded the community during the legislated proposal process.

Giddens, A. (1991). *Modernity and self-identity: self and society in the late modern age*. Stanford University Press.

Giddens clearly defines and explores the concepts of modernity in this book. Claims made within include contemporary society as one that is based in risk and risk evaluation including the deferral of risk taking to those who may not suffer the cost of risk. The book also explores the concept of ontological security and the threat to existence that is born by societal members and manifests as an existential anxiety between on-going being and not being. This is a very important concept that interplays with and provides insight into the role of pathologies of conversation and the near-immediate organization of opposition groups.

Giddens, A. (1996). *The Consequences of Modernity* (1st ed.). Cambridge: Polity Press.

This book further explores Giddens' ideas and theories of modernity and reflexive modernization. The range of exploration includes trust, intimacy, and social movements among others.

Glanville, R. (2001). The man in the train: Complexity, unmanageability, conversation and trust. *Grenzen Ökonomischen Denkens*. Retrieved from http://link.springer.com/chapter/10.1007/978-3-322-90341-9_17

   This paper is of great importance to this research, as it ties in the aspect or variable of trust that is closely associated with conversation theory and with pathologies of conversation. The key implication of the pathologies of conversation is that the entities become unmanageable. The lack of control implied by unmanageability is the pathology, and yet control is perhaps not the goal that should be pursued in the scenarios that are being studied in this thesis. What is certain is that the pathology of conversation occurs in an attempt by the entities at hand to gain or regain control and is sponsored out of a threat to normalcy and existential anxiety: fear. The primary condition that supports conversation is trust and trust is the antidote of fear, at least according to Glanville.

Guan, B. [Bonnie Guan]. (2014, February 12). Landfill Proposal in Ingersoll. [video file]. Retrieved from https://www.youtube.com/watch?v=w06KrjrVtmM

   This is a University of Western Ontario journalism student's report on the proposed landfill site.

Madirishninja. [Madirishninja].(April 1, 2012). Stop the Dump.mov. Retrieved from https://www.youtube.com/watch?v=YlV7EGB1BwE

   This is a locally produced YouTube video expressing concern and perspective regarding the LULU in this case study.

Milstein, T. (2013). Communicating "normalcy" in Israel: intra/intercultural paradox and interceptions in tourism discourse. *Journal of Tourism and Cultural Change*, *11*(1–2), 73–91. http://doi.org/10.1080/14766825.2013.797987

   This paper explores the production of the concept of normalcy in a social environment. Drawing on the work of Foucault and Giddens, the paper explores the dialectic production of normalcy in the tourist business and in society in general in Israel. This provides an interesting observation of how realities are developed socially through dialogue and defines the concept of normalcy as co-created reality.

Murray, G. R. (2016). 2016-03-17 Southwestern Terms of Reference Notice of Approval. Ontario Ministry of the Environment and Climate Change. Retrieved from http://www.opalalliance.ca/system/resources/BAhbBlsHOgZmIkAyMDE2LzAzLzIzLz E4XzIwXzA2XzExMF8yMDE2XzAzXzE3X1NvdXRRod2VzdGVybl9Ub1JfTm9BLnBkZg/20 16-03-17 Southwestern ToR NoA.pdf

This document is an official memorandum detailing the approval of the "Terms of Reference" under which the proponent Walker Environmental Group will be expected to work in the pursuit of an Environmental Assessment. This affords the reader an opportunity to observe in some detail the type of scrutiny the proponent is subjected to under the current legislation.

OPAL Alliance. (2014). River Current October 2014. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

OPAL Alliance. (2015). River Current June 2015. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

OPAL Alliance. (2015). River Current July 2015. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

OPAL Alliance. (2015). River Current September 2015. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

OPAL Alliance. (2015). River Current October 2015. *OPAL Alliance Newsletter*. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

OPAL Alliance. (2015). River Current November 2015. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

OPAL Alliance. (2015). River Current December 2015. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

OPAL Alliance. (2016). River Current August 2016. Ingersoll: OPAL Alliance. Retrieved from http://www.opalalliance.ca/news

This publication is a newsletter produced by the opposition group OPAL.

Oxford Coalition for Social Justice. [Oxford Coalition for Social Justice]. (2013, September 29). Stop The Dump - John Vanthof - Oxford Coalition For Social Justice. [video file]. Retrieved from https://www.youtube.com/watch?v=seKePQrjO9U

This reference is to a video of a presentation sponsored by the community opposition group oxford Coalition for Social Justice in which the Right Honourable John Vanthof, MPP Timiskaming-Cochrane, speaks of the struggle he was deeply involved in fighting a landfill proposal in his area at the Adams mine.

Oxford Coalition for Social Justice. [Oxford Coalition for Social Justice]. (2014, January 28). Stop the dump public meeting at Beachville. [video file]. Retrieved from https://www.youtube.com/watch?v=_y5_K2ajooI

This is a video of a public meeting held by the opposition group which involved several of the local and some provincial members of government.

QMI Agency. (2012, March 2). Quarry eyed for new landfill site project. *Woodstock Sentinel Review*, p. 1. Woodstock.

This appears to be the first mention in the secondary literature of the proposed LULU. It refers to the mayor of a neighboring town, Ingersoll, having some previous knowledge of the plan and to his concerns regarding a landfill at the proposed site. This is likely to be the first public notice of the landfill proposal and the primary source of information regarding the landfill. Thus, it is of significance to this research regarding the timing and ontogeny of the opposition group as well as the manner in which the communication occurred.

railpast. [railpast] (2012, April 1). Ingersoll Ont March - Stop The Dump March 31 2012. [video file]. Retrieved from https://www.youtube.com/watch?v=NjUDXisssuI

This is an amateur-produced YouTube video chronicling a protest march held in the neighboring town of Ingersoll on March 31, 2012. Among other things, this is a very good example of how quickly opposition organization takes place.

Rivers, H. (2012, June). Beachville landfill meeting slated for June 19. *Woodstock Sentinel Review*, p. 2. Woodstock.

This is a newspaper article regarding the proposed LULU. The article chronicles the events leading up to the date of June 2012 including the formation of the opposition group.

Stacey, M. (2016). Walker Environmental screens a variety of options for the landfill site, design, haul routes, treatment of leachate and gas management, as residents continue to protest its placement in Oxford County. Retrieved from http://www.woodstocksentinelreview.com/2016/10/14/walker-environmental-

screens-a-variety-of-options-for-the-landfill-site-design-haul-routes-treatment-of-leachate-and-gas-management-as-residents-continue-to-protest-its-placement-in-oxford-county

    This newspaper article retrieved from an online archive shows a map of the area in which the proposed landfill will reside. This allows the reader knowledge of the proximity to the communities from which the opposition group members come.

Statistics Canada. (n.d.). CANSIM - 282-0135 - Labor force survey estimates (LFS), by census metropolitan area based on 2011 Census boundaries, 3-month moving average, seasonally adjusted and unadjusted. Retrieved from http://www5.statcan.gc.ca/cansim/a26?id=2820135

    Statistics Canada website for economic statistics across Canada.

Tapley, J. (2012, March 9). Public Invited to Dig into Landfill Debate. *Ingersoll Times*, p. 2. Ingersoll. Retrieved from http://www.woodstocksentinelreview.com/2012/03/09/public-invited-to-dig-into-landfill-debate

    This is a local newspaper article that was published seven days after the first article announcing the proposed landfill. The article makes mention of community consultation and the community liaison committee. The article also cites the proponent as being safety-centric and not wanting to do anything to harm the environment. No vehicle for empowerment, dialogue, or participation is mentioned in this article.

Thomson, R. (2012). Oxford County's landfill debate delayed until April 11. Retrieved from http://www.woodstocksentinelreview.com/2012/03/29/oxford-countys-landfill-debate-delayed-until-april-11

    This is a newspaper article which contains a map of the proposed landfill site. Useful in triangulating the claimed geography of the LULU.

Vandermeer, J. (2012, March 7). Beachville quarry eyed for new landfill site pr. *Ingersoll Times*, p. 1. Ingersoll.

    This appears to be the first mention of the landfill in the OPAL case in the local media. The article contains a graphic with an aerial view of the site demarked. The article details an open house to be held by the proponent on April 4, 2012 at a specific location. A brief statement from the Mayor of Ingersoll is included, expressing both cooperation and concerns regarding the impact on the town and its residents.

6.4   Appendix D: Annotated Bibliography Case Study Two

6.4.1   Annotated Bibliography Case Study 2

Balogh, M. (2012, July 4). Dump dispute discussed at WM Q & A session. *Napanee Guide*, p. 1. Napanee. Retrieved from http://www.napaneeguide.com/2012/07/04/dump-dispute-discussed-at-wm-qa-session

   This is a newspaper article explaining a public information session hosted by the proponent, Waste Management Inc. It is good example of the media reporting at the time and describes the mood of the event and provides several community member quotes.

Beck, U., Bonss, W., & Lau, C. (2003). The Theory of Reflexive Modernization: Problematic, hypotheses and research programme. *Theory, Culture & Society, 20*, 1–33. http://doi.org/10.1177/0263276403020002001

   This is a paper exploring the theory and concepts underpinning reflexive modernization as a theory. Both Beck and Giddens developed very similar theories coincidentally around the same time. Reflexive modernization underpins much of the theorizing of NIABY, which is a primary explanation for opposition group formation.

Butler, D. (2010). Archive: Growing Carp landfill dominates campaign talk for Stittsville area. *Ottawa Citizen*, pp. 1–3. Retrieved from http://www.ottawacitizen.com/news/archive+growing+carp+landfill+dominates+campaign+talk+stittsville+area/2961752/story.html

   This newspaper article reviews the issues that are of concern for the local candidates in a municipal election in the area of the Carp Rd. landfill. Not surprisingly, the landfill is a major issue that is discussed during this election.

CBC News. (2014). Carp Road dump foes say ministry is biased against them. *CBC News Ottawa*. Retrieved from http://www.cbc.ca/news/canada/ottawa/carp-road-dump-foes-say-ministry-is-biased-against-them-1.2559796

   This is a CBC online article describing and quoting community opposition members who obtained email correspondence between the Ministry of the Environment and the proponent, Waste Management Inc. One email from the MOE described

the opposition group members as unreliable and accused them of lying about odours emitting from the existing landfill.

CBC News Ottawa. (2006). Angry crowd boos Carp landfill expansion plans. *CBC News Ottawa*. Retrieved from http://www.cbc.ca/news/canada/ottawa/angry-crowd-boos-carp-landfill-expansion-plans-1.617138

This article describes how 1,100 angry community members crowded into a high school gymnasium to heckle and boo the representatives from Waste Management, the proponent in this case. This occurred almost immediately after the announcement of the expansion plans for the Carp Rd. landfill.

CBC News Ottawa. (2010). New landfill planned for Carp Road. *CBC News Ottawa*. Retrieved from http://www.cbc.ca/news/canada/ottawa/new-landfill-planned-for-carp-road-1.923455

This is an article describing the size of the proposed landfill in this case.

CBC News Ottawa. (2011, November 23). Garbage too much for Ottawa landfills. *CBC News Ottawa*. Retrieved from http://www.cbc.ca/news/canada/ottawa/garbage-too-much-for-ottawa-landfills-1.978752

This article describes the long-term landfill inadequacy in the Ottawa area and how recycling and diversion programs are being considered.

CBC News Ottawa. (n.d.). Province apologizes for keeping city in dark on Carp Road dump plans. *CBC News Ottawa*. Retrieved from http://www.cbc.ca/news/canada/ottawa/province-apologizes-for-keeping-city-in-dark-on-carp-road-dump-plans-1.1705217

This article chronicles the apology which followed a release of the Carp Rd. landfill proposal without first informing the City of Ottawa Council.

City of Ottawa Agriculture and Rural Affairs Committee. West Carleton Environmental Centre - Lifting of Holding Provision (2015). Retrieved from http://app05.ottawa.ca/sirepub/agendaminutes/index_fr.aspx

This is a document circulated by the City of Ottawa Agriculture and Rural Affairs Committee announcing a meeting to consider lifting of the holding provision in place to prevent the Carp Rd. landfill expansion.

Coalition for Landfill Accountability. (2015). PRESS RELEASE: Community needs to be consulted on landfill Host Agreement – COLA. Retrieved from http://colaottawa.ca/press-release-community-needs-to-be-consulted-on-landfill-host-agreement/

This paper is a press release asking the proponent and the government to engage the community in dialogue regarding the now-approved landfill expansion at Carp Rd.

Cook, M. (2013, September 5). West Carleton landfill gets provincial go-ahead. *Ottawa Citizen*, p. 1. Ottawa.

This article chronicles the announcement of the government approval for the Carp Rd. landfill expansion and the disappointment of the politicians for their recommendations being ignored and for the government releasing the news without first contacting them.

CTV News. (n.d.). VP says he's not sure if he'd want to live near Carp dump. Retrieved from http://ottawa.ctvnews.ca/vp-says-he-s-not-sure-if-he-d-want-to-live-near-carp-dump-1.520684

This article asks an executive of the proponent, Waste Management, if he would move his family close to the landfill and his response is that he was unsure.

Helmer, A. (2010). Landfill neighbors not impressed with expansion plans. *Ottawa Sun,* p. 1. Retrieved from http://www.ottawasun.com/news/ottawa/2010/04/13/13573241.html#

This article describes how the opposition group members are strongly against landfill and feel that the problem is the ignorance of alternative means of dealing with waste.

NoDump.ca. (2012a). Issues. Retrieved from http://www.nodump.ca/issues

This is a paper summarizing the issues purported by the opposition group NoDump. It contains several examples of NIABY-related themes.

Sherring, S. (2014, March 5). MOE dissing Carp dump opponents. *Ottawa Sun.*

This opinion comments on the MOE emails that describe the opposition group members as liars. It lends good insight into the mood and outrage within the media regarding the emails.

6.5   Appendix E: Annotated Bibliography Case Study Three

6.5.1   Annotated Bibliography Case Study 3

Beck, U. (1992). *Risk Society: Toward a New Modernity*. Newbury Park: Sage
      Publications.

      This seminal work of Beck's explores and begins to define modernity and what he
      terms the risk society of modernity. There is a pertinent exploration of societal
      attitudes toward government, science, and trust that is of pertinence to this
      research.

Brunette, R., & Maltais, M. (2015). The Greenvaders - Absolutely Ottawa. [video file]
      Canada: CBC Broadcasting - PIX3 Films. Retrieved from
      http://www.cbc.ca/player/play/2675019667

      A CBC television program chronicling different environmental movements in the
      Ottawa area. Includes good interviews with CRCCPE opposition group founders.

Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE). (2012).
      Taggart Miller. Retrieved from
      http://www.dumpthisdump2.ca/media/2014/08/Taggart-Miller-Proposed-
      Boundary-Road-CRRRC-Landfill-Project-Fact-Sheet-August-2014.pdf

      This document is a newsletter highlighting some of the points of interest and
      conflict collected to date. The publication is authored by the CRCCPE, the
      opposition group of interest in this case.

Capital Region Citizens Coalition for the Protection of the Environment (CRCCPE). (2014).
      Taggart-Miller's Proposed Boundary Road CRRRC Landfill Project. Retrieved from
      http://www.dumpthisdump2.ca/media/2014/08/Taggart-Miller-Proposed-
      Boundary-Road-CRRRC-Landfill-Project-Fact-Sheet-August-2014.pdf

      This document is an updated newsletter similar in content to the previous 2012
      issuance and providing some different and updated information regarding the
      Taggart-Miller landfill proposal.

CBC News Ottawa. (2017). Boundary Road landfill wins provincial approval - Ottawa -
      CBC News. Retrieved from http://www.cbc.ca/news/canada/ottawa/boundary-
      road-landfill-proposal-1.4146594

This webpage is a local news article announcing the approval of the LULU that is the subject LULU of this case. This article corroborates other announcements by the opposition group.

Dump the Dump Now. (2016). Dump this Dump Together. Retrieved from http://www.dumpthedumpnow.ca/includes/docs/announcement_DumpThisDump Together_2016-04-02.pdf

This article is an update/news release encouraging the common cause of two opposition groups, Dump This Dump 2 and Dump the Dump Now, namely, landfill sites to work together.

Dump This Dump 2. (2012a). Dump This Dump 2. Retrieved from http://www.dumpthedumpnow.ca/includes/docs/newsletter_DumpTheDumpNow _2012-09.pdf

This is a newsletter published irregularly that chronicles the activities and perspectives of both Dump The Dump Now and Dump This Dump 2.

Dump This Dump 2. (2012b). Dump This Dump 2 Newsletter. Retrieved from http://www.dumpthisdump2.ca/media/2012/10/201210-Newsletter-En1.pdf

This is a newsletter published irregularly that chronicles the activities and perspectives of both Dump The Dump Now and Dump This Dump 2.

Dump This Dump 2. (2013a). Ontario is going to waste: Ontario's Ministry of the Environment is failing in its mandate—and local communities are paying the price with water contamination while private landfill proponents rake in the cash. Retrieved from http://www.dumpthisdump2.ca/press-release/

A press release, this document critiques the provincial government and the ministry in charge of granting or revoking landfill permits. The document describes an upcoming meeting to discuss with other communities and keynotes the issue at hand of landfill siting.

Dump This Dump 2. (2013b). Response to Taggart-Miller Fall 2013 Newsletter – Capital Region Resource Recovery Centre (CRRRC). Retrieved from https://lookaside.fbsbx.com/file/Response to TM Fall 2013 Newsletter-e.pdf?token=AWwTa3MO9IDT2D9S1OJL6OqkxE7XfT9vaz9ATVH_P_jRWj_bTfFwtq7 nkzC0uT-HFp4CK1KSKmcsYkLTiBJPns_7_QblfBRxmJbZCUeRy9-4uSSiX17o4dW60z4FYEG0-87f5iK1qmf5Ez1vf6ozFVlp

This document is a response to a proponent-published brochure that was circulated to the community. This Dump This Dump 2 document rebuts the claims made in the proponent-produced document. This is a very good example of the

mood and form of communication occurring during this time and stage of the proposal process.

Dump This Dump 2 (2013c). Newsletter January 2013. Retrieved from http://www.dumpthisdump2.ca/media/2013/01/201301-Newsletter-En.pdf

This is a newsletter published irregularly that chronicles the activities and perspectives of both Dump The Dump Now and Dump This Dump 2.

Wallach, J. (2017). Another open letter to The Premier of Ontario: Ontario Government – empty rhetoric, lack of common courtesy and landfills. *The Huffington Post*, pp. 1–2. Retrieved from http://www.huffingtonpost.com/entry/5883df19e4b0d96b98c1dca7?timestamp=1485224248317#

This newspaper article is an op-ed critiquing the response and behaviour of the provincial government to requests and correspondence sent to them by the community. The piece is a good example of how open and responsive dialogue would be highly valued by the community.

Wiling, J. (2012). East Ottawa site eyed for waste facility. *Ottawa Sun*. Retrieved from http://www.torontosun.com/2012/05/29/east-ottawa-site-eyed-for-waste-facility

This newspaper article describes the announcement of a second site to be considered in addition to one announced two years previous to the landfill of interest to this research – the Boundary Rd. location. This is an important document in that it chronicles the claims by opposition group members and politicians that the second site was a surprise and occurred after the process of approval was quite well developed.

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