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THE SOCIAL CONSTRUCTIONS OF
SOCIAL PROBLEMS: AN
EMPIRICAL EXAMPLE 'THE LOVE CANAL'

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BY

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A Thesis

Submitted to the School of Graduate Studies
in Partial Fulfilment of the Requirements
for the Degree
Master of Arts

McMaster University

December 1980

MASTER OF ARTS (1980)

MCMASTER UNIVERSITY

Hamilton, Ontario

TITLE: The Social Construction of
Social Problems: An
Empirical Example 'The Love Canal' Case'

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NUMBER OF PAGES: vii, 278

ABSTRACT

Two major approaches to the study of social problems have dominated the sociological literature. The first, the functionalist approach, carries over the familiar orientation and assumptions of the larger functionalist perspective in sociology. Social problems are seen as real social conditions harmful to society. The second and now more dominant approach, the subjective approach, draws on two larger perspectives in sociology, conflict theory and symbolic interactionism. From the former it takes an image of society as a collection of diverse and competing social influences with a wide array of ideas and interests; from the latter it takes an emphasis on the significant role definitions of social reality play for the understanding of social life. Social problems lie in the process by which groups come to define social conditions as problematic, not in the objective conditions themselves.

By examining the emergence of how the Love Canal, an environmental problem in Niagara Falls, New York was socially constructed into a "social" problem, it is argued that social problems and the issues associated with them are not objectively given whose existence may be taken for granted. Social problems are organized and defined within a socio-political context. The emergence of a social problem evolves around the following sequences: private recognition of the social

problem; public and political recognition of the problem as an appropriate issue for policy decision and government action; public debate and social conflict about the legitimacy, seriousness, and causes of the problem. For a social problem to be transformed from a private issue to a public issue, a complex socio-political process develops around the activities of major institutional actors; the media, officialdom, experts and private interest groups. Often conflicts arise not only over what is to be a public issue, but also over how the problem is to be diagnosed and responded to. Of particular theoretical interest in the institutionalization of social problems. Institutionalizing the social problem into the social structure, legitimate, institutionalize and routinize the social problem.

ACKNOWLEDGMENTS

Sharing and generating ideas is the ultimate purpose of research. Without a collective consciousness, intellectual work is meaningless. To suggest that this work is "mine" is to ignore the significant contributions people have made in stimulating and generating ideas in the first place.

First and foremost, I would like to thank my family and friends who have been most patient and supportive of my work. I am much indebted to my parents for their encouragement and support. Although the disruption resulting from the amount of time spent away from home was painful to them, they realize the value and importance of education. In particular, I wish to thank Christine Downey, Janet Feldgaier, Zee Boros, Gina Catino, and Francois Lalonde who showed genuine interest and concern in the progress of my work.

I wish to acknowledge the contributions and help given to me by my advisors, Jack Haas, William Shaffir and Richard Brymer. Other faculty members, especially Charles Jones and Vivienne Walters, and Malcolm Spector of McGill University, provided valuable assistance at critical times. Also, I must thank Peta Sheriff and the School of Graduate

Studies at McMaster University for their assistance in obtaining funds so that I could proceed with the research.

For an all too brief stay in Hamilton, I have learned much. That alone justified attending McMaster University. To the respondents who were so eager to share their time and knowledge, I am forever indebted to them; it will be difficult to repay that debt. To these people, though my work addresses the concern of academic sociology, I hope that in it man will realize the danger of toxic waste and the need to monitor the illegitimate activities of big business and government corruption.

ABBREVIATIONS

DEC	- Department of Environmental Conservation (New York State)
DOH	- Department of Health (New York State)
DOT	- Department of Transportation (New York State)
EPA	- Environmental Protection Agency
ETF	- Ecumenical Task Force
HEW	- Health, Education and Welfare (U.S.A.)
LCHA	- Love Canal Homeowners Association
LCRA	- Love Canal Renters Association
PCB's	- polychlorinated biphenyls
ppm	- parts per million
RCRA	- Resource Conservation and Recovery Act

TABLE OF CONTENTS

	INTRODUCTION	1
I	THE SOCIOLOGY OF SOCIAL PROBLEMS: THE OBJECTIVE VERSUS THE SUBJECTIVE APPROACH	7
II	POLLUTION AS A SOCIAL PROBLEM: A BYPRODUCT OF THE ENVIRONMENTAL MOVEMENT	27
III	STUDYING UP AND METHODOLOGY	83
IV	THE LOVE CANAL CASE	118
V	A THEORETICAL APPROACH FOR UNDERSTANDING THE EMERGENCE OF A SOCIAL PROBLEM	140
VI	CLAIM-MAKING ACTIVITIES AT THE LOVE CANAL	175
VII	MAIN PLAYERS IN THE LOVE CANAL ISSUE: A CONTENT ANALYSIS	226
	CONCLUSION	239
	APPENDIX A	254
	APPENDIX B	259
	BIBLIOGRAPHY	262

INTRODUCTION

Two approaches have recently dominated the study of social problems: the functionalist formulation of Robert Merton (Merton and Nisbet, 1971: 793-845) and the value-conflict approach, first presented by Waller (1936) and Fuller and Myers (1941a & b). However, Spector and Kitsuse (1973) have argued that both these statements contain critical ambiguities, centered on the relationship of the social problem to empirical reality. Both approaches require, albeit to varying degrees and in different ways, that the sociologist treat social problems as empirically verifiable conditions, without, however, providing a set of clear, systematic and usable criteria for conducting that verification (Cartwright, 1979).

Spector and Kitsuse have proposed an alternative approach to which "one need not assume nor explain the existence of (some) objective condition" (1973:414); an approach in which the sociologist instead focuses his attention to how some set of conditions come to be organized and defined as a social problem. They emphasize that such a definition "may be accompanied by empirically verifiable claims about the scale, intensity, distribution and effects of the imputed social conditions; but it may not and

theoretically it need not" (Kitsuse and Spector, 1973:414). In other words, they suggest that the sociology of social problems should focus on "the process by which members of groups or societies, through assertions of grievances and claims define a putative condition as a problem" (Spector and Kitsuse, 1973:146). This analytic stance does not deny reality, but rather emphasizes that our understanding, both individual and collective, of that reality is a situated one, inevitably subject to change and reinterpretation.

In recent years, numerous sociologists in the field of social problems, have encouraged scholars to view social problems as a struggle over definitions of empirical conditions (Blumer, 1971; Spector and Kitsuse, 1973, 1977; Mauss, 1975; Antonio and Ritzer, 1975; and Tallman, 1976). Without denying the existence of things independent of man and men (Cartwright, 1979), they suggest that our understanding of this world consists of collective and individual definitions. Social problems can be viewed as purposeful contests over some of those definitions. A central issue raised by this recent approach is that of documenting claims about the meaning of some conditions. Simple assertion of a claim's validity rarely suffices as proof. Cartwright states, "documentation can take the form of witnessing (I was there and I should know), of appeals to what every man knows" (1979:3) or of referral to expert opinion, to expertise.

The 'expert' often underwrites the credibility of a particular definition of problematic conditions. This thesis will focus on the processes by which social problem activities are socially constructed.

Chapter 1 will review how the objective and subjective paradigms account for the occurrence of social problems. Ambiguities in adopting an objective stance to study social problems will be examined. Finally, theoretical and practical implications for adopting a subjective approach to the study of social problems will be highlighted.

Acknowledging that pollution is perceived as a growing social problem in North America, Chapter 2 will examine how pollution emerged and was recognized as a significant social problem in the 1970's. By documenting the recent public awareness and concern over pollution issues¹, and by illustrating that pollution itself has been present for many decades (if not centuries) but has only in recent years been perceived by the public and government to be a social problem, I will attempt to test the hypothesis that the environmentalist' crusade for public recognition of pollution

¹ This will be measured by surveying a variety of indicators including evidence drawn from content analysis of news media and literature, public opinion and social survey data; environmental pressure group involvement; and finally the introduction of new political institutions and environmental legislation.

issues led to the social construction of pollution as a social problem. It will be argued that the physical deterioration of the environment, the mass media, and the political elite are variables that cannot by themselves explain the rise of public concern over pollution issues. In the chapters that follow, we will apply the subjective theoretical model, developed in the first two chapters, to the case study of the Love Canal situation - an environmental problem in Niagara Falls, New York.

The evaluation and replication of research results depend greatly upon a detailed discussion of the collection of data. Chapter 3 will outline the research methods employed to collect the data. Theoretical and practical concerns of conducting field research on public officials will be analyzed. A discussion of whether or not social scientists should offer confidentiality to public officials; the implication of conducting research in a political context; and gaining access to powerful organization will be among the methodological issues dealt with.

After presenting a brief overview of some general historical details and description of government involvement with the "Love Canal Case" in Chapter 4, the following two chapters will examine the social and political processes by which the Love Canal was transformed from a private issue to a public issue. Chapter 5 offers a socio-political

theoretical analysis of how social problem activities emerge. Competing definitions of the Love Canal situation and the subjective interpretations given to "facts" to document claims is illustrated. The chapter provides an explanation as to why competing definitions of social problems arise. Some sociologists have observed that although the making of claims and/or complaints is an integral part of the making of social and political life, only a few of the many everyday claims ever achieve public recognition (Spector and Kitsuse, 1977). In Chapter 6, a discussion of the critical factors that influence the pressing of successful claims-making activities is advanced.

In recent years much time and effort has been spent in developing a theoretically subjective paradigm to the study of social problems. However, little systematic data has been collected to test the adequacies and inadequacies of this approach. Having argued in the preceding chapters that the Love Canal crisis is a by-product of individuals and/or groups translating their claims into a socially produced social problem, in Chapter 7, I will attempt to provide additional empirical support to this claim by conducting a content analysis of newspaper articles on the Love Canal. A random sample of all articles published on the Love Canal in The Niagara Gazette will be undertaken to determine who are the prominent participants in the issue.

In the final chapter, I will consider some theoretical implications of incorporating emerging social problems into the social structure. Institutionalizing social problems is probably the most important legacy of social problem activities, and it is frequently responsible for generating issues unforeseen when the problem was legislated.

CHAPTER 1

THE SOCIOLOGY OF SOCIAL PROBLEMS: THE OBJECTIVE VERSUS THE SUBJECTIVE APPROACH

What is and what constitutes a social problem? This is a theoretical question that has plagued the sociology of social problems. Some sociologists (Kitsuse and Spector, 1973; Lauer, 1976; Rainwater, 1974) have expressed the idea that because of a lack of consensus on what is a social problem, a field for the sociology of social problems is problematic. Spector and Kitsuse (1973) argue that after more than 40 years, the writings on social problems still lack definition and substance. They state, "one wonders if a sociology of social problems is possible--whether there is any distinctive subject matter or phenomenon to which this term reflects" (Spector and Kitsuse, 1973:145). Rainwater (1974) states that there is no "field" of sociology with theoretical coherence that can be called "social problems." Lauer (1976) has noted that one of the difficulties that has plagued the study of social problems is the initial task of definition. The literature contains ambiguities in the definition, with the result that the subject matter itself becomes problematic. Along this line, Kitsuse and Spector have argued that neither of the two traditional

approaches to social problems, the functionalist formulation to Robert Merton (1971) and the so-called value-conflict approach of Waller (1936), and Fuller and Myers (1941a & b) succeed in "defining an unambiguous field of study, nor in distinguishing the subject matter of social problems from other categories of sociological analysis" (1973:407).

A factor that is often cited to explain why the development of the sociology of social problems has been hindered is the presence of two very different and conflicting theoretical approaches to the study of social problems. Reasons (1974) states that the literature reveals that there is a distinction made between an "objective stance" and a "subjective stance" to the study of social problems.¹ Rainwater (1974) suggests that sociologists have usually studied social problems from two different theoretical perspectives bearing heavy consequences on the development of the field of social problems.

The "objective stance" presumes that a social problem exists as an objective condition or arrangement in the texture of society. The objective condition is perceived

¹ Antonio and Ritzer (1975) have stated that the "objective stance" includes the following schools of thought: social pathology; social disorganization; and structural-functionalism. On the other hand, the "subjective stance" includes the writings of the value-conflict perspective and the writings of scholars such as Becker (1966); Blumer (1971); Kitsuse and Spector (1973); Mauss (1975); Spector and Kitsuse (1973, 1977); and Tallman (1976).

as having a harmful or malignant character standing in contrast to a normal or socially healthful state of affairs (Blumer, 1971). In sociological jargon, it is a state of dysfunction, pathology, disorganization, or deviance. Blumer states that the main task of this approach is "to identify the harmful condition or arrangement and to resolve it into its essential element or parts" (1971:298). People from this school of thought see social problems as caused mainly by "objective" changes in the social structure or by the lack of needed change in the existing social structure.

Mauss (1975) has pointed out that recently, another kind of "objectivist" sociological theory on social problems, one which still views the origins of problems in the objective facts of the social structure, has been put forward. Mauss states that this new "objective stance" might be called "left-wing objectivism" in contrast to the "right-wing objectivism" described above. This perspective attributes the presence of social problems to the lack of needed change in the existing capitalist social structure. Both of these "objectivist sociological theories" regard social problems as objectively real in the sense that they are generated from the social structure itself, rather than arising from the various social constructions of reality found in the minds of individuals and/or groups (Mauss, 1975). The focus is upon the condition, with emphasis upon describing and explaining the occurrence of the condition (Reasons,

1974). As Rainwater (1974) points out, this perspective takes for granted that the definition of the condition under study is a social problem.

The "subjective stance", the perspective that I believe best provides sociologists with the theoretical emphasis and complementary methodology to develop a field of social problems poses a somewhat different question. This approach seeks to answer the question how and why a specific condition comes to be perceived or acknowledged as a social problem. Rainwater argues if the sociologist's interest in a particular problem is in its definitional aspect-- "that is, in how society comes to define a particular condition as a problem and how that definition is incorporated into on-going social transaction" (1974:2)-- then he can achieve an adequate account within the bounds of the discipline itself. However, he suggests that if sociologists are concerned with studying the "problem" itself rather than the process by which society defines it as a problem, then they must step outside their discipline and borrow tools "from a broader perspective" because "social problems are not simply sociological problems" but economic, political, psychological, and historical problems (1974:2). If we want to understand the problem itself rather than the process by which society defines it as a problem, we must seek an understanding from a broader perspective than that provided by the sociologist's expertise alone (Rainwater, 1974). Thus, an objective stance

draws sociologists away from their field, and seriously places a constraint in the development of a distinctive field of study for social problems.

Furthermore, several critics of the objective stance have highlighted some very apparent deficiencies in this approach. Blumer (1971) has stated that current sociological theory and knowledge, in themselves, just do not enable the detection or identification of social problems. Blumer points out that very often sociologists discover social problems only after they are recognized as social problems by and in a society.² Sociological recognition, Blumer states, "follows in the wake of societal recognition, veering with the winds of the public identification of social problems" (1971:299). For example, environmental pollution is a social problem of current interest for sociologists although its presence and manifestation date back over many decades. It was only by 1972, that sociologists had begun to recognize "environmental sociology" as a new paradigm

² I did not create the definition of the "Love Canal" as a social problem. Rather that definition was already present and my research interest in the Love Canal was generated after "the fact", that is after the definition of the Love Canal as a social problem was created. In the hypothetical case, where sociologists generate and/or create a social problem, we must recognize as Kitsuse and Spector state that the enterprise of sociology must itself be conceived as part of the data for the study of social problems-- "that sociologists are participants in the definitional process" (1975:585).

(Catton and Dunlap, 1978)].³

A second deficiency in adopting an objective stance to study social problems is that this perspective fails to provide an explanation to why some instances of dysfunction, pathology, disorganization, or deviance achieve the status of social problems whereas other conditions do not reach this status. Furthermore, this perspective states that a social problem exists basically in the form of an identifiable objective condition in a society and fails to realize that it is the societal definition "which gives a given social problem its nature, lays out how it is to be approached, and shapes what is done about it" (Blumer, 1971: 302). A social problem is always a focal point "for the operation of divergent and conflicting interests, intentions, and objectives" (Blumer, 1971:301). It is the interplay of the interests and objectives that constitutes the way in which a society deals with any one of its social problems. It has been suggested that because of this the "objective stance" to the study of social problems stands outside the realm of such interplay. Indeed as Blumer states it is

³ Blumer (1971:300) argues that if conventional sociological wisdom is "so decisively incapable of detecting social problems" and if sociologists discover social problems by following and using the public recognition of social problems, "then it would seem appropriate that sociologists should focus their attention on the process by which a society comes to recognize its social problems."

inconsequential to it because such an interplay is not included in its theoretical framework. Reasons (1974) argues that the "objective stance" has failed to include the essential ingredient of a social problem, i.e., societal reaction-- the process by which a society comes to recognize its social problems.⁴

Hewitt (1975) argues that by paying attention to the objective condition, emphasis is focused away from fundamental questions and toward more superficial technical matters. Does the condition meet the criteria to be classified as a social problem? Is the analysis significant? Details rather than fundamentals become the issue. The social problem is viewed as a consequence of social arrangements rather than to the arrangements themselves. Details are important but "attention to the details by themselves tend to obscure underlying social arrangements and cultural assumptions that give rise to those details" (Hewitt, 1975: 16).

Spector and Kitsuse (1977) have noted that recent students of social problems have shifted their focus from the causes of objective social conditions to the processes by which members of a society define those conditions as

⁴ For a more detailed criticism of the "objective stance", see Spector and Kitsuse (1977).

problems-- "the subjective stance." Fuller and Myers (1941a, 1941b) were the first proponents initiating a subjective theoretical approach to the study of social problems although previous scholars in the 1920's and 1930's prepared the ground for a sociology of social problems with a distinctive focus on the definitional process (Bain, 1935; Case, 1924; Frank, 1925, and Waller, 1936). Since the Fuller-Myers formulation, numerous academicians have criticized and elaborated their theoretical formulation.

Fuller and Myers note that there is always a dual reference is asserting that something is a social problem: (1) a reference to an objective condition and (2) a reference to a subjective evaluation which defines that condition as in some way undesirable, destructive, or immoral. They state that the objective condition is verifiable, in the sense that impartial or trained observers can describe its nature and extent. But in order for a given objective condition to be classified as a social problem, "it is necessary that members of the society see it as an undesirable departure from the ordinary course of things" (Rainwater, 1974:1). While Fuller and Myers move away from the functionalist position that conditions in themselves are sufficient for the existence of social problems and take a more interactionist perspective, Kitsuse and Spector (1973) argue that they do not move to the position that objective conditions are not necessary. The typologies presented by

Fuller and Myers characterize conditions, not definitions of conditions. Hence, Spector and Kitsuse (1977) state that by reintroducing the concept of objective conditions into their formulation, Fuller and Myers have obscured the originality and distinctiveness of their approach.⁵

Recent writers have been interested in generating a theory of claims-making activities, and not a theory that incorporates objective conditions (Blumer, 1971; Hewitt and Hall, 1973; Kitsuse and Spector, 1973; Mauss, 1975; Ross and Staines, 1971; and Spector and Kitsuse, 1973, 1977). Blumer's main thesis is that social problems are "essentially products of a process of collective definitions instead of existing independently as a set of objective social arrangements with an intrinsic makeup" (1971:298). Becker (1966) argues if any set of objective conditions, even nonexistent ones, can be defined as a social problem, then it is clear that the conditions themselves do not either produce the problem or constitute a necessary component of it. Mauss further argues

⁵ Kitsuse and Spector have stated that there is a parallel between the labelling theory of deviance and the value-conflict school-- "so much so that the writings of Fuller and Myers are often called the labelling theory of social problems" (1975:60). However, they state that both theoretical formulations are plagued with a similar problem-- they intend on asking, "what makes people perceive (commit) social problems (deviant acts)?" even when their theory poses a prior question; "How do people come to define conditions (acts) as social problems (deviant)?" Because of this, Merton and Nisbet have characterized the labelling and value-conflict formulations as "heedless subjectivism."

that "no social condition, however deplorable or intolerable it may seem to social scientists or social critics, is inherently problematic" (1975:XVI). He presents us with a theoretical model that illustrates that a social problem is a social product. He endorses the position that conditions are made a problem by the entrepreneurship of various interest groups, which succeed in winning over important segments of public opinion by imposing their definition of reality upon them with the aim of seeking public recognition "that something is wrong here and that something ought to be done about it." In any discussion of the genesis of social problems there is always the presence of moral crusaders who provide the public with "proof" of the need for a campaign to eliminate this or that "social problem." It is Mauss' position that all social problems are produced by the behaviour of publics, interest groups and/or pressure groups,⁶ and that these are therefore very important social phenomena to understand.

⁶ Some critics of the "subjective stance" have stated that this formulation does not operationalize the specific groups of people who are involved in the subjective definition (Lauer, 1976). In his article, Lauer does not quarrel with the notion that there is a subjective element to social problems, but with the question of who is involved in the creation of the subjective definition. In response to this criticism, both Mauss (1975) and Spector and Kitsuse (1977) have operationalized who the "public" is. For example, Mauss identifies six kinds of publics and interest groups that may be involved in the genesis of social problems.

Mauss suggests that most sociologists who have studied social problems fail to utilize Durkheim's insight that social problems originate in public opinion rather than in objective reality:

...For if it is true, as Durkheim says, that "we do not reprove (an action) because it is a crime, but it is a crime because we reprove it", then it is equally true that we do not deplore a social condition because it is a problem; rather, it is a problem because we deplore it (1975:XVI).

The argument expressed by Durkheim (1938, 1951) and Erikson (1966) states that society generates or defines its own normal level of deviant behaviour, and that this level is likely to remain stable over time, although the particular offenses defined as deviant may vary from time to time. Sociologists who study social problems may use the Durkheim-Erikson proposition to "be broadened beyond deviance to include all social problems" (Mauss, 1975:42). Mauss maintains:

...that every society in a given span of time has its own normal quota of social problems. Although the specific social conditions which interest groups may pick out to define as problems will vary from time to time, the incidence of problems will remain stable. Not only is there a limit on the resources available for the sponsorship of causes, but there is also a limit of the challenges to the status quo which can be managed by social control agencies... These agencies will attempt, with a combination of co-optation and regression, to keep the outbreak of social problems within manageable limits (1975:43).

⁷Lauer's (1976) examination of social problems as identified by public opinion polls from 1935 to 1975,

For example, Mauss illustrates that we usually find very few social problem movements during time of World Wars or national disasters. Firstly, total wars constitute such a demand on the resources, energy, and emotions of a people that it is difficult for many of them to get aroused over other problems because the war becomes the one all-consuming problem. Secondly, social problem movements during "crisis" periods of this nature receive very little tolerance from the government or from the public at large, for no distraction must be permitted from the objectives of the war or whatever the all-consuming problem is. Hence, Mauss (1975) cites the following reasons for adopting a subjective approach to the study of social problems: (1) the cultural and temporal factors relatively surrounding the issue of what is a problem-- specifically, the same social condition may or may not be defined as problematic, depending on time and place; (2) the insufficiency of "objective" social problems to produce social problems in and of themselves; and (3) the unpredictability of social problems from given social conditions.

By examining the uses of quasi-theories⁸ in talk

illustrates that public definitions of problems vary over time. Although some problems seem to be identified periodically-- taxes, foreign policy-- many problems appear to have a limited time span during which they are identified.

⁸ Quasi-theories are defined by Hewitt and Hall (1973) as ad hoc explanations brought to problematic

about problematic situations, ethnomethodologists Hewitt and Hall, assert that it is in the social context of talk that the "social construction of the reality of social problems" emerges (1973:369). The work of Ross and Staines (1971) discusses the process whereby social conditions come to be defined as social problems and public social issues. Ross and Staines (1971), as well as Leonard Reissman (1972), have pointed to the essentially political nature of both the definition and the solution of social problems. That is, the laws that are passed and enforced around a given social problem are likely to reflect more the interests of politicians and enforcement officials than the imperatives of the "problem situation."

This new approach stresses the importance of people, power and politics in the process of social problem creation, maintenance, and demise. Reasons argues:

We must look to the arena of political, social, and economic power and identify those varying interests which are vying to have a phenomenon labelled as problematic and those attempting to shut off such recognition (1974:383);

For instance, Reasons (1974) provides us with a rich account of how the "social reality" of the "drug problem", which arose in the late nineteenth and twentieth century, was constructed and shaped largely by specific individuals

situations to give them order and hope.

and interest groups who made it their business and concern to discover and define appropriately the jurisdiction of a "drug problem." Furthermore, he documents how the interest of the medical profession and the drug industry shaped the final drafting of the Harrison Narcotic Act.

By contrasting how the local newspaper and national newspapers reported the Santa Barbara Oil Spill, Molotch and Lester (1975) conclude that the nature of event-making is a social and political activity rather than an indicator of what, in some objective sense, actually happened. They argue that the making of news is not the product of "an objectively significant set of happenings which can be known to be important, and hence reported by competent unrestrained news professionals." Rather, news-making is the outcome of various interest groups who seek "to have its account of what was really happening and really important become the national account" (Molotch and Lester, 1975:235).

The subjective paradigm views the emergence of definitions as a complex and problematic political process:

For a social problem to become a public issue, a complex political process develops around the activities of major institutional actors; the media, officialdom, and private interest groups. Yet conflicts arise not only over what is to be a public issue, but also over how the problem is to be diagnosed and responded to. A somewhat different set of institutional and social actors are more intimately

involved in the conflict between competing diagnoses of publicly recognized social problems (Ross and Staines, 1971:18).

Drawing upon a critical ambiguity in the Fuller-Myers formulation of the subjective aspect of social problems which does not specify who the "people" are in the formula... "social problems are what people think they are", recent writers of the subjective school have been sensitive to the possibility of differential definitions of the same problem. Unlike Fuller and Myers, recent proponents of the subjective school do not suggest that a community will reach a consensus about what does or does not constitute a social problem. They argue that a problem is not the same to all interested parties; "indeed, there will be as many definitions of the problem as there are interested parties" (Becker, 1967:7).

As Howard Becker mentions, the realization that not only do social problems come into existence by being defined as problems, but also that the same set of objective conditions may be defined in many different ways has both theoretical and practical implications. The theoretical implication is that

...in reaching an understanding of the problem area, we must consider the varying definitions of the problems by the various groups that have an interest in it, because the definitions themselves play a role in giving a problem the form it has in society (Becker, 1966:10).

The practical implication of multiple definitions of social problems by various interested groups arises because the definition of a problem usually contains, implicitly or explicitly, suggestions for its solutions.

Unlike the "objective stance", this conception is sensitive to the different techniques available to each group when attempting to extend a particular definition and to the basis and strength of institutional power from which each group acts. Such a theoretical perspective conversely implies that if a group(s) can get others to share their definition of the situation, they are much closer to getting them to accept their remedial prescription (Hall, 1972:51).

In this light, emerging definitions are central to the development of social problems because they serve as a basis upon which consciousness of a given condition as problematic takes place. However, as Harrington cautions us, the extension of particular definitions of social conditions and suggestions for social change must be viewed "as an interactive temporal sequence":

...definitions are affected by the responses of various social actors and likewise evolve in response. This dialectical process of interpretation, and response is a continuous one (1974:30-31),

For example, Lauer illustrates that neither the ideology nor the program of the LSD movement "appeared in a fully

developed integrated form" (1972:320-21). Rather, both evolved in the interactional process as the movement and the larger society defined and redefined, adjusted and readjusted, to each other. By paying attention to the competing processes of definition and redefinition of socially problematic phenomena, Spector (1977) traces how certain key figures within the American Psychiatric Association successfully imposed their definition of homosexuality as a life style in official psychiatric nosology, as opposed to the previously accepted definition of homosexuality as a mental disorder.

Recently, Spector and Kitsuse (1977) lay out a theoretical formulation that may bring forth a distinctive subjective approach to the study of social problems. Kitsuse and Spector (1973) have speculated that the existence of social problems is dependent upon those groups and agencies that stimulate the awareness of certain conditions as social problems and who generate actions to eliminate or ameliorate the problem. Thus, they define social problems as "the activities of groups making assertions of grievances and claims with respect to some putative condition" (Kitsuse and Spector, 1973: 415). The emergence of a social problem is contingent on the organization of group activities with reference to defining some putative condition as a problem, and asserting the need for eradicating, ameliorating, or otherwise changing that

condition (Spector and Kitsuse, 1973:146). The theoretical problem is to describe and account for how categories of social problems are produced, and how methods of treatment are institutionally established. The main interest is in constructing a theory of claims-making activities, not a theory of conditions. In their view, the relevance of the objective conditions in the analysis of any specific social problem is an empirical question, not a question of definition. Consequently, from the standpoint of this theoretical paradigm, the causes of the conditions would enter the analysis of social problems only as such causal analysis were used by groups making assertions and claims and in constructing their strategies (Kitsuse and Spector, 1973:414).

Spector and Kitsuse (1977) state that in the process of defining a condition as a social problem, the sociological analyst should be sensitive to the construction and imputation of values, motives, and interests to the major figures involved because these may be devices that participants use to articulate their claims, or to persuade others to legitimate them. Hence, motives, values, and interests are part of the data of social problems "rather than explanations of them" (Spector and Kitsuse, 1977:93). Finally, Spector and Kitsuse state that claims-making activities are an on-going process and "do not emerge from

nowhere," rather they have a career (1977:428). They present a five-stage model in which social problems develop through a series of stages.⁹ They illustrate that the life-cycle of a social problem occurs independently of objective reality but dependent on its interaction with the host society.¹⁰ As Mauss (1975) illustrates, the cycle is dependent upon the individuals and groups on all sides of an issue acting out their own perceived interests in response to each other. However, as Spector and Kitsuse (1977) and Mauss (1975) caution us, a natural history model of social problems does not provide us with an accurate and specific outline of every social problem, but rather it provides us with an ideal type of reality, to make possible empirical observation on the extent to which various social problems correspond to this typification. At best, "a hypothetical natural history may serve as a

⁹ The natural history model for social problems was postulated as early as 1940 by Fuller and Myers (1941b), though it was criticized a decade later by Lemert (1951) not so much for its use as a general model as for the particular application of it that Fuller and Myers had made. In most recent years, Howard Becker (1966), Herbert Blumer (1971), Mauss (1975), and Spector and Kitsuse (1973, 1977) have reformulated the model, each significantly contributing new insights, in the aim of suggesting again the model for application to social problems.

¹⁰ Mauss (1975) points out that few, if any, of the existing formulation of natural history models, especially where social problems are concerned, have paid sufficient attention to what might be called the "decline" of social problems. Most formulations, with the possible

temporary procedural manual, a checklist of things to attend to, and a first order of business" (Spector and Kitsuse, 1977:158).

In summary, by focusing on the process by which members of a society define a putative condition as a social problem, we have a distinctive theoretical model in which social problems can be understood and studied. Consequently, a central task in developing a model of the emergence of social problems is explaining the process of translating personal concerns into collective issues (Mills, 1959). Some persons-- variously called-- "moral entrepreneurs", "concern innovators", or "claim-makers"-- communicate their concern and the expectations of a solution to others, thus creating a social problem essentially in a process of social influence (Schoenfeld et al., 1979:38).

exception of Reissman's work, take the natural history model up through the "full blown" stage (i.e., "institutionalization", "development of tactics", "implementation", "reform") without much attention being focused to what happens to a social problem after that.

CHAPTER 2

POLLUTION AS A SOCIAL PROBLEM: A BYPRODUCT OF THE ENVIRONMENTAL MOVEMENT

Introduction

Acknowledging that pollution is perceived as a growing social problem in North America, I will adopt a "social problem-movement" perspective (Mauss, 1975) to examine how pollution, in the case study of the Love Canal, emerged and was recognized as a significant social problem. The emergence of environmental pollution as a social problem illustrates the role of social and political processes in defining issues as problematic phenomenon.

The social problem-movement perspective draws upon a subjective orientation (Ross, 1977). Objective conditions are viewed as having little direct effect upon the origin of social problems. Instead, collective definitions based upon subjective constructions of reality lead to interest group formation and action. In an attempt to influence public opinion on issues, interest groups become involved in social movements. Social movements then, contribute to the definition of social problems. Social problems, in this perspective, may be considered simply special kinds of

social movements and hence, the terms "problems" and "movements" are used simultaneously and virtually synonymously (Mauss, 1975; Rose, 1977).

In an attempt to summarize those factors that seem to affect the emergence of a social movement and/or social problem, Harrington (1974) suggests that although it is important to study objective changes within a structural system, we must not assume that "objective deterioration of social conditions" is the sole explanation for the surfacing of a social movement and/or social problem. He argues that the process by which a given condition becomes transformed into a social problem does not occur in a vacuum but within an interactive context. Before a social problem emerges, some aspect of society's social arrangements must be defined as in need of change by and for some people. Spector and Kitsuse (1977) have similarly argued that social problems are products of particular constructions of social reality, rather than, necessarily of actual physical conditions.

The rapidly growing literature on the impact of the "environmental movement" on the larger society (Albrecht, 1976) suggests that what happens to the environment is not simply a consequence of the workings of ecological, technological, or economic forces. Rather, the environmental movement is, itself, a significant force in affecting the way environmental problems are defined and addressed.

Harrington (1974) views the emergence of the environmental movement and the rise and development of ecological concern as a complex and problematic process. He states that behavioural responses are based upon the meanings individuals attach to an object, event, or stimulus, and upon a continuous process of human interpretation and definition. Social definitions are constantly in process, problematic (Blumer, 1969), and related to changing situational contexts and the ability of any group of actors to accommodate their social definition to evolving or altered situations. Harrington (1974) illustrates that the environmental movement cannot be understood in purely structural terms without relating the movement to a diversity of social groups and actors within both the movement itself and the larger society. Hence, the surfacing and birth of environmental concern can be related to groups of actors, with differing motivations and concern, trying to define situations as either problematic or not.

Bowman (1975) states that publicity concerning pollution problems has been present since about the late 1950's without attracting mass support and it is not certain that the present forms of environmental degradation are really worse than in the past. This "suggests that public perception of the environment is at least as important as the actual condition of the biosphere." Bowman

observes:

...popular awareness of most problems in American domestic life does not, in other words, necessarily reflect changes in real condition (1975:91).

Anthony Downs (1972) describes the environmental movement as part of what he calls the "issue-attention cycle"-- a cycle of public attention to issues that shifts from prediscovery, to public prominence, to decline as the costs involved in solutions are realized, and to a fading away from the center of public attention. By this argument, environmental problems have a reality only to the extent that they are matters of intense public concern. As Sills (1975) mentions, it is important to examine the social and political roots of the problem, rather than strictly the physical phenomena, if we are to arrive at a reasonable understanding of why there presently exists such a widespread public concern over pollution.

By documenting the recent public awareness and concern over pollution issues, and by illustrating that although pollution itself has been with us for many decades (if not centuries) but has only in recent years been acknowledged by the public and government to be a social problem, I will attempt to test the hypothesis that the environmentalists' increasing interest and concern over pollution, rather than the physical deterioration of the environment, has contributed to defining pollution as a

social problem. A discussion of how the physical deterioration of the environment, the mass media, and the political elite are variables that cannot by themselves explain the rise of public concern over pollution will be documented. An evaluation of the impact the environmental movement had in redefining the environment in a problematic context will be presented.

The Public's Concern Over Pollution Issues

Although man has always been concerned about his environment, numerous studies have illustrated that it is only in recent years that man's interest with pollution has been translated from personal concern into collective issues (Morrison et al., 1972; Rosenbaum, 1977; Sandback, 1978; and Sills, 1975). Unlike the past, today, man's concern over his environment has become a legitimate and institutionalized claim. The 1970's has witnessed a great mobilization of rhetoric, activity, and organization around environmental problems in the United States. A decade or two ago, "ecology" and "environmental protection" did not exist in American public discourse. They were non-issues to most citizens and public officials. Today, they are in the midst of the environmental decade whose meaning and broad implications we take for granted (Rosenbaum, 1977).

Sandback (1978) and Sills (1975) argue that one way that the rise and fall of the environment as a public

issue can be measured is by surveying a variety of indicators including evidence drawn from content analysis of news media and literature; public opinion and social survey data; environmental pressure group involvement; and finally from the introduction of new political institutions and environmental legislation.

Given the fact that the available data from both content analysis of news media and periodical literature are relatively limited in the number of years they cover and have serious methodological shortcomings, the basic conclusion that can be drawn from the existing data is that pollution has become a popular subject in both the news media and in the periodical literature.

Mass media awareness of the dimension of the environmental problem has grown in the United States, whether one measures this in terms of column-inches, number of stories, or editorials (Maloney and Slovonsky, 1971; Munton and Brady, 1970; Sandback, 1978; Rosenbaum, 1977). For example, Maloney and Slovonsky's study on the mean monthly column-inches of space devoted by The New York Times Index to environmental issues from 1958 to 1970 illustrates that the newspaper's coverage on pollution increased each year reaching its peak in 1970. Unlike the past, Morrison et al., (1972) argue that today, dramatic environmental problems, such as the Santa Barbara Oil Spill, receive heavy mass media coverage, which stimulates general public

awareness of environmental problems.

Similarly, an increase in the number of articles and books written on pollution has occurred in recent years. McEvoy's examination of the periodical content of articles concerning environmental issues in the Reader's Guide to Periodical Literature during the period 1953 to 1970 found that "there has been a significant increase in the number of environmentally oriented articles appearing in United States periodicals during the years examined" (1972:143). He states that the overall increase for the 16-year period was slightly greater than 470 percent, from 48 to 226 articles¹ with the most significant increase occurring after 1960. This quantitative change has been accompanied by qualitative changes in the content of the articles as well.

Earlier articles were more likely to deal with such matters as natural history and environmental problems in rural areas. The emphasis has shifted to problems of the urban environment, especially those created by industrialization-- i.e., lack of open space, air and water pollution (toxic wastes), population density and land use (Lipsey, 1977:361).

Buttel (1976) has suggested that the "discovery" of the environment as a social problem by the environmental

¹ By examining the large increase in the numbers of environmentally related articles which have been indexed in such standard reference works as the Reader's Guide to Periodical Literature and the Canadian Periodical Index, as well as more scholarly reference works such as the Political Science, Government and Public Policy Services whose recent

movement and the American public during the 1960's is responsible for a vast outpouring of social science literature on environmental problems. A recent comprehensive bibliography on social science and the environment (Morrison et al., 1974) lists 4,892 entries, of which 60 percent were published during 1968 or later. Of 15 journals categorized in 1976 by the Environmental Periodicals Bibliography only two had been formed before 1967, and 11 began publication in the four years of 1967 to 1970 (Sandback, 1978).

Furthermore, Catton and Dunlap (1978) argue that at the turn of the decade rising concern with the environment as a social problem led to the development of a distinguishable specialty known as "environmental sociology." Various sociological organizations reacted to this growing awareness by including articles on "environmental sociology" in their journals. For example, in 1976 the American Sociological Association, following precedents set a few years earlier by the Rural Sociological Society and the Society for the Study of Social Problems, established a new section on environmental sociology.

supplement indexed 90 entries on pollution, where none had been made reference to five years earlier, Koenig (1975) has noted that like the American press, the Canadian press has become much more attentive and interested in documenting pollution issues in recent years.

In line with Blumer's (1971) argument that sociologists do not discover social problems but rather rely on the public's definition of what constitutes a social problem, the emergence of "environmental sociology" was a byproduct of the public's growing interest in environmental affairs rather than the discipline of sociology acting without influence and/or consultation from the public. When public apprehension began to be aroused concerning environmental problems, the scientists who functioned as opinion leaders were not sociologists, but biologists and ecologists. These included Rachel Capson, Barry Commoner, Paul Ehrlich, and Garrett Hardin (Catton and Dunlap, 1978). Sociologists did not have a theoretical scheme nor interest to recognize the social reality of environmental problems. Rather, it appears that the discipline of sociology was influenced by the public's growing interest in environmental problems rather than vice-versa.

Not only was a new specialty known as "environmental sociology" developed in sociology, as well as other disciplines, but recently the concept of "environmental studies" has been institutionalized in the educational system. The field of environmental law has been established in many law schools and in legal practice (Sills, 1975). Quigg (1973), for instance, reports that a 1973 directory of the environmental education programs listed 1068

"environmental studies program" in 740 colleges and universities in 70 countries. A decade ago, such a program was non-existent in the curriculum of most colleges and universities.

In addition to this growth in media and periodical attention to environmental issues, some limited time-series social survey data and public opinion polls show that public concern over air and water pollution issues is in fact rising sharply. In summarizing the data from the major polls that have asked environmental related questions (California, Gallup, Harris, Minnesota, Opinion Research Corporation, and Roper), Erskine suggests that concern with ecological issues has burst upon the American consciousness with "unprecedented speed and urgency" (1972:29). There is ample evidence that public concern about the environment sprang from almost nowhere to major proportions in only a few years (Mauss, 1975).

The only public opinion data available for any aspect of the environment in the 1960's were compiled by the Michigan Survey Research Center in 1960-1961. The data reveal a lack of public interest and commitment to environmental programs of the early 1960's. The fact that no data were collected by social scientists prior to 1960 illustrates that not only was the public disinterested in the issue but so was the academic world. The Most

Important Problem (MIP) type format in the Gallup Surveys first included a general "pollution-ecology" code in January 1970. When the first polls appeared in 1965, relatively few people indicated much concern about environmental issues.

The available data suggest that public awareness on pollution, as measured by public opinion polls, increased steadily after 1965. Part of the increase in the concern over pollution is shown in the polls conducted by the Opinion Research Corporation (ORC). For the past decade, ORC has asked a nation-wide U.S. sample, "compared to other parts of the country, how serious, in your opinion, do you think the problem of water (air) pollution is in this area-- very serious, somewhat serious, or not serious?" Whereas in 1965 only 13 per cent of the population thought that water pollution was a very serious problem, 38 percent thought that water pollution was a very serious problem in 1970. The corresponding figure for air pollution rose from 10 per cent to 35 per cent.²

In 1971, a Harris Survey indicated that of 16 social problems, control of air and water pollution was considered by 41 per cent of the sample to be among the two or three

² Opinion Research Corporation, Public Opinion Index. Princeton, N.J., 1966, 1967, 1968, 1969, 1970.

top problems facing the American people. In accordance with the findings of the Harris Survey, Dillman and Christenson (1972) found that the allocation of more public resources for pollution control is highly valued, ranking second only to crime prevention and control, among the 15 areas studied in the State of Washington. The concern is uniformly held by persons living in areas of varying pollution levels. Dillman and Christenson (1972) state "it appears that citizens are becoming convinced that pollution is a threat to them even though it is not seen as a local community problem." Furthermore, recent studies document that concern for such things as air pollution has risen steadily at the same time that levels of a number of common air pollutants have declined in a broad sample of urban areas (Ludwig, Morgan, and McMullen, 1970),

Another index of recent public concern about the environment is that membership growth rates in conservation and environmental preservation organizations are increasing (Davis III and Davies, 1975). Sills (1975) has stated that the expression of public interest in the environment is demonstrated most clearly by participation in voluntary association. A study of the growth rates of four conservation organizations (The Sierra Club, The Wilderness Society, The National Audubon Society, and Save the Redwoods League) between the years of 1950 and 1969 demonstrate that there

has been a sharp increase in membership in each of the four groups. For example, in the past 20 years the Sierra Club has shifted from a small, San Francisco Bay Area-based organization of less than 8,000 people to a national organization of more than 115,000 members (McEvoy, 1972).

McEvoy (1972) illustrates that large national organizations such as the Sierra Club and the Wilderness Society, as well as the many thousands of local and ad hoc groups throughout the United States, have all doubled or tripled their membership in the years 1965 to 1970.³ Contrary to many predictions, membership in most environmental organization has continued to grow, albeit more slowly than in the early 1970's (Rosenbaum, 1977).

In the last decade or so, the American government has demonstrated a growing political interest in environmental problems, never witnessed in the past. On February 10, 1970, then President Richard M. Nixon delivered the first message on the environment ever presented to Congress, in which he announced his determination to give the matter high priority. Congress has since required that the President deliver such a message annually (The National

³ Zinger et al., (1973) estimate that the total membership of known environmental organizations by the Environmental Protection Agency is somewhere between 5 to 10 million.

Environmental Policy Act of 1969, Public Law 91-190). It ranks with the State of the Union Address and the National Economic Message as one of three addresses the Chief Executive is legally required to present to the country.

Trop and Ross (1971) state that both the Republican Party and the Democratic Party have demonstrated a high degree of interest in environmental protection issues since the 1960's, though perhaps official Republican Party interest has been somewhat slower in developing. The 1964 platform of the Democratic Party made brief mention of environmental issues, while no mention at all was made by the Republicans. By the 1968 conventions, the Democrats devoted a complete section of their platform to environmental conservation and natural resources, while the Republicans acknowledged the existence of air and water pollution, and the need for their correction.

If we review governmental involvement in environmental policy, we notice that the federal government has assumed the leadership in stimulating, formulating, and implementing environmental policy. Rosenbaum notes that "the critical struggles over environmental management now occur in Washington"⁴ (1971:11).

⁴ Up until 1948, legal authority to control water pollution belong almost exclusively to the states and localities. However, after the mid-1950's, the basic

The magnitude of governmental involvement in environmental policy can be gauged from the creation of the new agencies to deal with environmental problems (Rosenbaum, 1977); and with the significant increase of the number and variety of bills relevant to environmental problems. Furthermore, recent environmental legislation has been quite favourable in allowing an increase in the volume of environmental lawsuits, an avenue that was not open to both the public and environmentalists a decade ago. Bowman (1975) states that of the first 102 environmental litigation cases decided since the signing of the National Environmental Policy Act (NEPA) in 1970, all but two ended in defeat for environmentalists. However, the environmental sensitivity on the part of the United States government is rather sudden; like their state and local counterparts-- who have followed, rather than anticipated, federal involvement programs-- federal officials were slow to recognize

framework for pollution control has been increasingly determined by federal legislation. Running through the bills and amendments at the national level we notice that there is a determined effort to extend federal jurisdiction into many areas traditionally reserved to the states. The basis of the demand by federal agencies for a greater role in decision making is the "contention" that the states have not been vigorous enough in using their control authority, and that many state programs are either nominal or inadequate, or both" (Swearington, 1972:251). Hill (1972) states that industry will attempt to keep regulation as much as possible at the state level, where industry may be more influential than in Washington. Friction and jurisdiction disputes extending down to local governmental levels have been among the byproducts of this process.

most environmental problems and approached the few they did "at a glacial pace" (Rosenbaum, 1977). Virtually no significant air or water pollution legislation existed at the state level prior to 1960-- in most states, none at all. Between 1951 and 1962, only 11 states had any law relating to air pollution on their statute books. Since then, 36 states have added some form of air pollution control (Rosenbaum, 1977). Prior to 1966, only 13 states had made any serious effort to regulate the emission of air pollutants within their boundaries. Even more significantly, only a handful had begun to tackle the most essential problems, such as the regulation of sulfur oxide emissions, and the establishment of ambient air standards. With the exception of some state regulation and support of municipal sewage treatment facilities, the situation in water pollution control "until the 1960's was equally void of incisive state action" (Davies III and Davies, 1975).

Previous attempts to incorporate environmental legislation at the federal level were unsuccessful. For example, as early as 1912, the Inter-National Joint Commission had warned Washington that pollution in the Great Lakes was "generally chaotic, and in some cases disgraceful" (Rosenbaum, 1977); since then Lake Erie has become an ecological "dead-lake". A joint federal/state effort is only now underway to "save" endangered Lake Michigan from a similar fate, despite the fact that such warnings were

voiced 50 years ago! Attempts to pass Water Pollution Control Acts through the House of Congress had failed in the 1930's and 1940's (Davies III and Davies, 1975). The Donora air pollution disaster occurred in 1948 but it was only in 1955 when Congress passed the first modest air pollution legislation.

The evidence clearly indicates that it is only in the past two decades or so that government has acknowledged the seriousness of pollution and taken action to remedy the situation by creating legislation and agencies that are responsible to foster a more co-ordinated and intensive attack on pollution.

The federal government's growing involvement in environmental problems seems irreversible. As Davies and Davies (1975) mention, once a government has taken action to remedy the pollution solution, the very fact that something has been done tends to create a demand for further action. The issue is granted publicity and respectability by governmental recognition and suddenly the public learns that something can be done to alleviate the problem. Once an official agency has been established to control pollution (the Environmental Protection Agency), that agency becomes a focal point for bringing the issue to the attention of the general public as well as other governmental levels. The members of the agency have a vested interest in drawing attention to the problem. If they are successful, new groups

will be created for the specific purpose of doing something about pollution. The concern with pollution thus becomes institutionalized and the pressure to take action becomes constant. The federal pollution control agencies have played this kind of role. However, this does not mean that the federal government has suddenly become pro-environmentalist. Rather, as Rosenbaum reminds us, "to public officials has fallen the difficult but essential task of translating this environmental concern into authoritative policy" (1977:85). Public officials are confronted with an arena of institutions, actors, and influence that, each in its own right, is trying to mold and shape environmental policy.

Some critics of the movement have endorsed the view that "the honeymoon is over", and as Sills (1975) mentions, if by "honeymoon" one means the extent of public interest, attention, and even societal consensus attendant on Earth Day 1970, the movement has lost some of its public support. Evidence indicates that although news media coverage and public opinion have begun to wane from 1973 to 1977, it would be premature to conclude that public interest in pollution is declining and that the environmental movement is losing ground. A recent survey of news media and environmental literature suggests a gradual rise in interest during the mid- and late 1960's. The period 1969-1972

marked a high point in literature coverage, and interest began to wane from 1973 to 1977 (Sandback, 1978). Hornback's (1974) unpublished doctoral dissertation points out that public support built up between 1968 and 1970, peaked in 1970, and underwent a serious decline by 1972. Surveying the same subjects in 1970 and again in 1974, Dunlap and Dillman's data clearly indicate a substantial decline in public support for environmental protection (especially pollution control), as measured by priorities for allocating governmental funding among expenditure areas.

Some journalists have hinted to the public that the environmental movement is declining: "Environmentalists at Bay" was the title of a Wall Street Journal editorial on January 3, 1974 (p. 10), "Environmentalists Foresee 1974 as Toughest of Recent Years" headlined The New York Times on February 3, 1974 (p. 38), and the March 30, 1974 issue of The Economist (London), in its "American Survey", found that "the environment is short of friends" (p. 45).

However, to argue that interest in pollution and in the environmental movement is no longer an issue to the public and government agencies is inaccurate. Scholars have noted that social problems tend to follow a typical pattern (Downs, 1972; Mauss, 1975; and Spector and Kitsuse, 1977). The changing public mood was predictable. "Public attention", as Anthony Downs has observed, "rarely remains sharply

focused upon any one domestic issue for very long, even if it involves a continuing problem of crucial importance" (1972:38). Once a social problem becomes widely recognized, it is likely to provoke a great deal of concern and awareness among the public. In response, government generally passes laws and sets up agencies to handle the problem. In the light of such actions, the public understandably assumes the problem will be resolved and thus becomes less concerned about it. Dunlap and Dillman have observed this trend:

In Washington, concern over environmental problems generated several state laws and a Department of Ecology, and since 1970 both government and industry have informed the public that progress was being made in solving environmental problems. Apparently Washingtonians believe this, as in our 1974 survey 82 per cent of the panel agreed that "much progress has been made in cleaning up the environment during the past four years." Consequently, it is not too surprising that they would place a lower priority on environmental programs than they did four years earlier (1978:388-389).

Thus, recent public opinion polls routinely reveal that by the mid-1970's the ecological issues have been replaced in public concern by matters such as high unemployment, the rising cost of living, foreign affairs, the Middle East, and in the aftermath of Watergate, apprehension over official governmental ethics.

Sandback cautions us from making quick generalizations from the evidence gathered by public opinion and social survey data suggesting that "it only provides a

weak quantitative confirmation of the view that the environment rose as a public issue, and then began to decline in importance after 1972" (1978:102).

It should be apparent to social scientists, if it is not to journalists, that social movements and/or social problems do not die sudden deaths. Rather, as environmental concerns become institutionalized within political institutions and environmental legislation, the movement has simply altered the political setting of environmental action to better suit its needs. With the establishment of pressure groups and the legitimate recognition of pollution as a social problem by government agencies, the movement is no longer dependent upon the mass media and public support to achieve public recognition. Blumer (1971) and Spector and Kitsuse (1977) mention that as social movements and/or social problems mature and become institutionalized, they become less dependent on support from the masses to attract public attention and more dependent on other strategies to achieve their goals. Silis (1975) has argued that the environmental movement has changed their activities, their goals, and their character in response to both internal development and external events, and that the environmental movement carries the same weight today, if not more. One of the most apparent changes in the movement has been a tendency toward increased politicalization. Faich and Gale (1971) describe this as a transition from recreation to politics.

Denton Morrison et al., (1972) have observed that environmentalists are increasingly turning to power strategies (attempting to achieve sufficient group influence to achieve the desired change) and away from participation strategies (educating and urging people voluntarily to make change).⁵ Whereas the environmental movement was in the past largely a consensus movement, with broad, general support from the population, recent evidence suggests that we can expect it to rapidly become a movement of conflict between the environmentalists and those who stand to suffer economically by the costs of environmental reform.

Unlike public opinion surveys and media coverage, there is less support for the view that pressure group involvement in environmental organization has been declining. Rather, Sandback (1978) observes that membership in most large U.S. national environmental organizations has grown in recent years. For example, the Environmental Defense Fund, founded in 1967, had only 11,608 members in 1970 but by 1976 had 40,000 members. Its budget of \$1.3 million had grown about five times during this period. The same is also true of the Sierra Club, the National Audubon Society, Environmental Action and Natural Resources Defense Council Incorporated. Furthermore, since the 1970's, involvement

⁵ The power-participation distinction in social movements is theoretically developed by Killian (1964).

in litigation by these organizations has continued to grow.

To state that interest in pollution is on the downswing, and that the environmental movement is dying, because of a decline of news and public attention is to ignore that social problems move through stages, and that as social problems become institutionalized, they become a political issue and a political battle of conflict of interests (Bowman, 1975).

Bowman (1975) indicates that the environmental movement is, just as it was in the early seventies, still fashionable. However, he argues that as the battle is moving away from the "walls of the public" to the "walls of the courts and governmental institutions", ecology is rapidly losing its glamour and becoming altogether dull and complicated for the media and the general public (Bowman, 1975:96).

Factors That Cannot By Themselves Explain The Rise In Public Concern Over Pollution-- The Physical Condition; The Media; and The Political Elite

Upon evaluating this cumulative evidence of media, public and governmental involvement in ecology, it seems apparent that between 1965 and the early 1970's, the United States made an extraordinary transition in terms of social awareness, from environmental indifference to environmental concern. During this sudden transformation ecology rose from political and social invisibility to political and

social salience (Rosenbaum, 1977). But the question being raised is why this upsurge of public and government interest in the last decade or so and not in the 1950's or 1850's? Contrary to the opinion of some, there is ample proof to suggest that the environmental issue did not spring into full-bloom in recent years because of the rapid deterioration of our environment, nor because of media and governmental interest in ecology.

The argument that "things got so bad that it was impossible to ignore them any longer" has been advocated by numerous writers. As Mauss (1975) states, these writers suggest that the concern of the 1960's evolved from the fact that the exploitation of the environment and the threat of overpopulation had reached ultimate crisis proportions.

The degradation of the environment has been occurring for centuries, and scientific data evaluating the seriousness of this degradation were available long before the 1960's. Pollution crises, Crenson (1971) mentions, have been with us for many years but they were simply non-issues then and are issues now. Dramatic pollution crisis can be traced as far back as to the Roman times, while action to reduce it is recorded early in English history (Sewell and Foster, 1971). For example, in 1272, Edward I banned the use of smoke-producing coal in the London area (Sewell and Foster, 1973). Allan Schnaiberg (1973), a student of the environmental movement, has traced

the presence of environmental concern and degradation in England and in other European nations as early as the Industrial Revolution. Neuhaus (1971) has illustrated that some forms of pollution have existed since the first cities; in fact, cities are said to be cleaner today than ever before.

Neither air nor water pollution has become so much worse in the past few years as to account for the increase in public awareness about American's pollution troubles. Rosenbaum (1977) suggests that air pollution may have been more lethal in many communities a few decades ago, but little public concern was evident. The Battle of Birmingham in 1971 saw the immediate cessation of production within a major industrial complex in the name of pollution abatement. Despite similar occurrences, this would have been impossible two decades ago because "when Richard Nixon (first) assumed office, Washington possessed neither this power nor an Environmental Protection Agency to enforce it" (Rosenbaum, 1977:7-8). History recalls that similar air pollution emergencies had occurred for decades prior to Birmingham's without governmental action taken; for example the Donora, Pennsylvania disaster of 1948 which claimed forty lives. Residents of Los Angeles, Pittsburgh, and New York know smog alerts as a way of life. A New York City pollution crisis in 1953 was recognized to be an "air pollution

problem" after nine years had elapsed, when a study of mortality statistics revealed that the dramatic buildup of dirty air was accompanied by a fairly sharp increase in deaths (Crenson, 1971). One "fog" that blanketed the City of London for five days in December 1952 is thought to have caused about four thousand deaths:

...many of the victims dropped dead on London streets; about forty bodies were removed from one small park in the South end of the city (Crenson, 1971:6).

A subsequent investigation of similar "fog" episodes in the winter months of 1873, 1880, 1882, 1891, and 1892 illustrates that there were increases in the London death rate in each of these foggy periods (Crenson, 1971).

As several scholars have pointed out, the recent intensification of national interest in pollution cannot be attributed entirely to a sudden increase in air and water pollution rates during the period after World War II. Evidence seems to suggest that there was just as much pollution in the past, if not more, than today (Crenson, 1971; Ludwig, Morgan, and McMullen, 1970; Mauss, 1975; Neuhaus, 1971; and Schnaiberg, 1977). Neuhaus (1971) has argued that our present environmental problems are not the inevitable result of technological development-- that is, that technology has reached a point where we can no longer control its effects on the environment. The gravity of environmental problems alone cannot explain the current

environmental movement. Many environmental problems now on the agenda of public agencies have not become so visibly evident to reach the stage that customarily arouses immediate public alarm.

Crenson (1971) endorses the opinion that when a society ignores some issues, for whatever reason, it is simply because the issue in question is considered not an important one. It is not important because the society, by ignoring it, has said that it is not important. The general apathy that both the public and government paid to pollution in the past is well captured in an editorial letter that was sent to The British Medical Journal on December 20, 1880.

The frightful visitation of smoke clouds and smoke fogs under which the metropolis has been suffering during the last fortnight cannot fail to make itself felt in an enhanced mortality, as it does most acutely in discomfort, arrest of business, and loss and outlay in many directions. Londoners groan, but will not help themselves. The Smoke Abatement Institute long since pointed out the various ways of suppressing the nuisance; but neither the Legislature nor local bodies will take any of the necessary steps. The "Property Defence Association", through the Earl of Wemyss, successfully resisted in two successive years the Bill which the Select Committee of the House of Lords approved; and the public apathy was such that no funds have been forthcoming to assist the promoters of the Bill in maintaining a public agitation in favour of its simple and practical provisions, so that practically the Institute has had to suspend proceedings. Apparently Londoners like to have their grumble and cling to their smoke as a cherished institution which is to be defended as one of the privileges of "property" (p. 1442).

Hence, we cannot rely entirely on the answer that this new outlook of the environment as a serious social problem is a wholly rational response to objective conditions-- that is, that things have gotten so bad that it is impossible to ignore them any longer.

Furthermore, neither the recent attention paid by the mass media's coverage and emphasis on pollution nor governmental concern over ecological issues can, by themselves, explain the growing concern North America is paying to pollution issues.

Many of the discussions concerning the development of social problems mention the possibility of the media operating in significant ways. Blumer (1971) has stated that the media usually are discussed in terms of their impact during the emergent and legitimizing phases of social problems. The study of the influence of the mass media upon the public conceptions of social problems has remained relatively unexplored from a sociological point of view (Hubbard et al., 1976). However, the writings and research in the field of mass communications lead us to conclude that, whatever the impact might be, the media coverage of social problems does to some extent not only create an awareness of these problems, but also a sense that something is being, or ought to be done about them (Defleur and Ball-Rocheach, 1975).

Both Albrecht (1972) and Schnaiberg (1977) claim that the popular media played a central role in defining the environment as a pressing social problem. Social problems compete for public recognition and response, and the "crisis" orientation of a competitive popular media, attempting to attract listeners and readers, launched environmental issues to the forefront of public issue attention (Harrington, 1974). However, without questioning the fact that the media did arouse public interest in environmental issues, Maloney and Slovonsky (1971) note that the mass media are seldom responsible, as a separate entity, for significant changes in public opinion. Word-of-mouth communication and group action are likely to play key roles in creating and altering opinion formation. The media are less likely to affect public opinion when there are no organizations involved in a given issue at the grass-root level to encourage conversation and action, or to make news for the media to report in the first place.

In a recent study, Schoenfeld et al., state that if their analysis of The New York Times and Chicago Tribune is representative of the U.S. press as a whole:

...the daily press does not seem initially to have operated as effectively as did other modes of communication in this society-- interpersonal, conversations, newsletters, the publication of journal articles and books-- to provide early environmental claims-makers a platform and help define the core concepts of the emerging social problem (1979:48).

Their analysis tends to support Tichenor et al., 's information diffusion model-- that the movement of information from one social system to another is "from professional and interest group concern through independent publication and attention in government to mass media attention and (general) public concern" (1973:272).

Schoenfeld et al., (1979) state that because newspapers lack the necessary criteria for interpreting environmental degradation as news, it did not have "news value." In tracing the shift from conservational terminology to environmental terminology, they illustrate that the early terms of "natural resources", "conservation", and "conservationist", were by the 1960's "inappropriate at best and at worst misleading as ways of referring to the new ecological concepts" (1979:41) and of stimulating media and public attention to the construction of the environment as a social problem.

In the 1960's, wanting to energize the public's (and media's) awareness of what were early identified as the four P's-- pollution, pesticides, population and people's habits-- the early claims-makers of the environmental movement apparently sought some compelling words that would better signify a new and much more comprehensive approach to the making of the environment as a social problem (Schoenfeld, et al., 1979:40)

Tunstall (1970) states that stories about the environment had no clear place to go in newsrooms until

environmental claim-makers constructed a distinctive term for their overall concern. The "environmental beat" emerged in 1969-1970. It simply took time for "holistic environmentalism" to acquire news value in U.S. and Canadian city rooms, "despite the diligence-- indeed, stridence-- of early claims-makers" (Schoenfeld et al., 1979:50). However, as soon as environmentalism had news value and the legitimate news category had come into existence, "different orders of meaning and association can be made to cluster together, and produce more media space" (Schoenfeld et al., 1979:50).

Once environmental issues had been incorporated into the consciousness of the daily press, we see what Rock (1973) calls a "self-generated paradigm"; the environment became news simply because newsmen said it was news, with a resulting marked climb in coverage. However, as it was mentioned before, this does not mean that the media has not fostered and/or contributed to the public's awareness of the environment as a social problem. As Defleur and Ball-Rackeach (1975) mention the press has not been irrelevant to the apparent success of environmental claims-makers-- it has played a role in the "tripartite audience-media-society mix."

Harrington suggests that the encouragement of influential governmental officials has played a major role in developing widespread concern over the environment.

Secretary of the Interior Stewart Udall and Senator Edmund Muskie were early environmental crusaders. President Nixon himself joined the team of environmentally concerned politicians and the names of Mondale, Stevenson, Nelson, Case, Hickel, Gravel, Hartle, Percy, Unruh, Packwood, Lindsay, and Kennedy are only a partial list of those influential government officials who helped legitimate the Earth Day events (1974:126)

Without disregarding the influence that the political elite had in awakening public attention and in legitimizing concern over pollution, writers who advocate that political influence has played a major role in bringing the environmental issue to the forefront of public attention (Trop and Leslie, 1971), fail to realize or take into account that the lack of public interest in pollution in the early 1960's corresponded with the absence of political action and awareness of pollution as a major problem or social issue, before 1965. That is, if pollution was "always there as history states", why did the political elite react to it so late? Why did it wait until 1965 to pass the Water Quality Act. As a matter of fact, as late as 1968, the gathering of experts associated with the prestigious Brookings Institution did not list ecology among the most pressing issues that ought to be tackled immediately by the Nixon administration. Foss (1972) observes that despite numerous hearings and investigations, and the introduction of dozens of bills in the 1960's, Congress took no action

on pesticide control measures until the environmental crusade emerged in the 1970's.

Furthermore, among environmentalists, there is an unspoken conviction that something in the American political process is inherently inhospitable to environmental protection, that politics undermines sound environmental policies established in the public interest while nature's private exploiters profit (Rosenbaum, 1977). These critics argue that there is a "politics of procedure" in the American governmental system, a distribution of advantages and influences called forward by the architecture of our traditional decision-making system that has worked to the disadvantage of ecology.

Lowenthal states that the American government has not yet "put its money where its rhetoric is" (1970:291). Senator Muskie has stated that the anti-pollution drive is slogan rich and action poor. For instance, though the Clean Waters Restoration Act of 1966 authorized \$1 billion for waste treatment in 1970, Nixon's budget requested only \$214 million, and President Nixon did not spend the rest (Lowenthal, 1970:29).

Implicit in the environmental reforms is that "doing business" is the American way of life; this is made clear in the Environmental Policy Act's phrase, "productive harmony". Government will implement

environmental policies as long as the cost of such reforms does not create too much dissension with the interests of industries. Of the dozen industrial giants interviewed by The New York Times in 1970, the Chairman of Republic Steel Corporation was most forthright in confirming the environmentalists' fear that business manipulation of government may hamstring environmental reform.

Fighting pollution created by older plants is... complicated and costly. To solve this without economic dislocation or unemployment and yet continue to make progress will require cooperation and understanding from regulatory agencies.

Thus, when the Environmental Protection Agency was created in 1970, President Nixon created a National Industrial Pollution Control Council, an advisory panel of big business executives, to give industry a voice in government agency decisions.

Buttel and Flinn (1974) have made a distinction in mass environmental attitudes between awareness of environmental problems and support for environmental reforms. They state that making this distinction is necessary because it is quite clear that translating the public awareness of the seriousness of environmental problems into meaningful environmental reforms has been problematic-- in the political arena as well as in the value hierarchies of mass publics. Martinson and Wilkening (1975) have shown that there is a very weak correlation between public assessments of environmental problems and support for a variety of reform measures.

Buttel and Flinn's (1974) study clearly illustrates that the environmental movement, at least in its early stages, did not stem from the governmental level but from grass-roots organizations. Their study demonstrates that the surge in awareness of environmental problems during the early course of the environmental movement was generally independent of political party identification and political ideology.

In summary, it appears that Washington's entrance into the "pollution scene" has been initiated by various pressure groups demanding "that something ought to be done about the environment" and by the federal government wanting jurisdiction over pollution matters (Davies III and Davies, 1975). As Horowitz (1972) has stated "environmental politics" has rapidly become an electoral pressure-group activity-- where environmental groups have forced politicians to recognize environmental problems. By recognizing such problems, political leaders have sensitized the masses to ecological concerns, while changing public opinion has put new pressures on elected representatives. Trop and Leslie note the important role publicity has played in stimulating government awareness and interest in environmental issues.

...publicized attention resulting from the politicalization of the issue has successfully stimulated higher levels of concern, priority, and commitment to seeking a cure for environmental ills (1971:52).

In return, constituent pressure upon representatives has helped influence politicians towards supporting environmental legislation.

The Environmental Movement

It is a most difficult task to assess the important impacts the environmental movement has had on the larger society, since the movement is in its early phase of the institutionalization stage and there is a lack of systematic data on it.⁶ However, the literature that has recently developed suggests rather clearly that the environmental movement has become one of the major politico-economic development of twentieth century America and has significantly contributed to the construction of pollution as a social problem (Harry et al., 1969; Albrecht, 1976). Harry et al., argue that the environmental organizations are now "effectual contesters in the country's policy making arenas and influence the use of natural resources worth billions of dollars" (1969:212). Even critics of the environmental movement agree, that the movement has influenced the major institutions of society and altered the behaviour of many

⁶ Morrison et al., (1972) suggest that sociologists and other social scientists need to be encouraged to research this movement, to use it for developing general knowledge about social movements and/or social problems and to use general knowledge about social movements to understand it.

people, whether they realize it or not, and whether they like it or not.

Harrington (1974) states that the environmental movement qualifies as a social movement. He illustrates that the environmental movement fits well the general characteristics of social movements, i.e., "the presence of coordinated, extended efforts to achieve social change, an environmental ideology, member zeal, and the utilization of institutional and noninstitutional tactics" (Harrington 1974:16).

Recent empirical studies demonstrate that the environmental movement is essentially an interest of the upper-middle class and educated (Epstein, 1973; Horowitz, 1972; Lowry, 1971; Newhaus, 1971; Smith, 1974; Zwerdling, 1973). Rosenbaum (1977) comments that the environmental movement speaks in middle and upper-class accents. Harry et al., (1969) have argued that the movement is composed largely of upper-middle class individuals drawn from professional occupations who have the financial resources, time, and organizational skills to make the movement successful. Many of the persons who can properly be regarded as participants in the environmental movement are employees and officials in a wide variety of governmental agencies, educational institutions, and other societal institutional agencies, as well as members of various

voluntary associations concerned with the environment. It has not attracted people in lower-class occupations. Devall's (1970) data supports Harry et al.'s findings that the environmental movement draws its support from the upper-middle class segments of the population and that this may account for some of the political success of the movement. These characteristics have apparently dictated an environmental movement which acts largely by "working within the system" (Buttel and Flinn, 1976:478).

Yet the limited studies available appear to indicate that not all social groupings high in the stratification hierarchy are equally concerned with environmental problems. Harry (1971) and Constantini and Hanf (1972) stress that a decisive factor seems to be whether one's occupational role leads to exploitive or non-exploitive relations with natural resources. Buttel and Flinn (1976) argue that persons whose occupational roles and reference groups yield a perceived threat from environmental reform will be less likely to consider pollution as an important problem. Conversely, they state that professionals and other workers who are more or less insulated from dominant economic interests will be more likely to support environmental reform and to perceive pollution as a problem. Sharma et al., (1975) found a moderate correlation between a predisposition to close down the polluting industry and the

amount of unemployment respondents are willing to accept to solve the pollution problem ($r=.42$). These findings add additional support to the proposition that it is not the objective condition, but the subjective interpretation one gives to the objective condition that governs what will or will not be a social problem.

Although subject to more serious empirical testing, evidence indicates that a significant number of individuals and/or groups within the environmental movement have consciously made pollution a public social problem (Mauss, 1975). Political scientist, Walter Rosenbaum states, "this recent environmental consciousness has been cultivated by environmentalists" (1977:8). Indeed, it is largely through groups that issues are politicized in the first place; that is, brought within the ambit of public institutions.

Rosenbaum has suggested that the environmental movement caught most social prophets looking the other way:

...a decade ago, no social analyst could have predicted ecology's rise to major national attention (1977:56).

Morrison et al., (1972) have highlighted a peculiar characteristic of the environmental movement which is the rapid extent to which in comparison with other social movements such as the labour and civil rights movements, it has been influential in effecting change and in becoming a powerful force within governmental circles. Maloney and

Slovonsky's study (1971) point out that practically all of the 56 editors they contacted recognized local and national environmental groups that were active in the fight against pollution as being among the most, if not the most, potent source of opposition to pollution and as making the pollution issue news worthy.

In an effort to assess some of the major impacts the environmental movement has had on the larger society, Albrecht (1976) convincingly argues that much of the legacy of the environmental movement is reflected in the influence it has had on societal, legislative, and individual levels.

On the societal level, the environmental movement has played a crucial role in defining the environment as a significant social problem for the public. Furthermore, the environmental movement has made large industries and utility companies more sensitive to environmental concerns. Rosenbaum (1977) documents how corporations, in comparison with the past, have spent lavishly to advertise that business has an ecological conscience. Albrecht observes:

...if nothing else, the environmental movement has forced large industries and utility companies to spend millions in public relations campaigns to convince the American public that they are concerned about the environment. The major automobile company in the United States takes out full page advertisements in The New York Times containing the two sentences; DOES GM CARE ABOUT CLEAN AIR? YOU BET WE DO!! (1976:156),

The environmental movement has had the most significant impact at the legislative level. In recent years, the number of bills dealing with the problems of air and water pollution, as well as federal agencies that monitor complaints with the numerous existing pollution and environmental protection laws, have increased rapidly. Environmentalists have had some input in the final drafting of recent legislative bills that deal with environmental issues. Furthermore, Mauss (1975) has documented some of the political power environmentalists have had on government in recent years. For instance, during the 1972 National Election, environmentalists joined together to defeat a number of Congressmen who had compiled the poorest environmental track records. Among these was the powerful Chairman of the House Interior and Insular Affairs Committee, Wayne Aspinall of Colorado. Aspinall was labelled by the environmentalists as the most notorious of the "dirty dozen" and this label plagued him throughout his unsuccessful run for re-election (Mauss, 1975).

On the individual level, one observes the important impact that the environmental movement has had on the life-styles of many individual Americans. Redefining the environment in a problematic context has meant that many Americans now see their world in a different light (Mauss, 1975).

Evidence indicates that environmental groups have been the major driving force that has cultivated recent social interest and concern in pollution. Jones (1970) notes that by the late 1950's and early 1960's environmental groups had become a large powerful interest group that was using full-page advertisements in The New York Times, The Washington Post, The Los Angeles Times, The San Francisco Chronicle and other newspapers to awaken public sensitivity to environmental concerns. Jones observed that when the press writes about the Sierra Club (probably the most active and politically aggressive environmental group which has a reputation of being a tough sophisticated political opponent), it usually feels an obligation to tack an adjective ahead of its name, such as "prestigious", "abrasive", or "powerful".

Most analysts in the area recognize that although recent public interest in pollution is a product of the 1960's and 1970's, the environmental movement is not. Its historical roots can be traced back before the turn of the present century (Mauss, 1975). In fact, Albrecht (1976) points out that there has been at least two or three other waves of environmental movements in American history. Social movements and/or social problems are seldom the outcome of impetuous complaints. Unlike sudden public interest and concern over issues, one can always trace "interest groups" involved in a given issue years before

the issue ever became a public social concern.

Harrington (1974) endorses the view that the emergence of social movements is not a sudden occurrence. Often one can trace the origins or impetus to the movement as far back as eighty years. The closing of the nineteenth century brought a growing realization in some circles that natural resources were, indeed, exhaustible (Albrecht, 1976). Many students of the environmental movement have documented how the present environmental movement is a byproduct of the early development of the conservation movement in the nineteenth century. Gale (1972) has noted that two early interests emerged some time around the turn of the twentieth century which were to play important roles in the formation of early environmental movements, and indirectly, the present environmental movement. These two themes were resource conservation and outdoor recreation.

The early conservation movement, composed of a number of geographers, geologists, botanists, biologists, and natural scientists, saw themselves opposing commercial exploitation of natural resources, and defining the "public interest" (Harrington, 1974). However, a basic distinction emerged in the early conservation movement which continues to the present date, between those supporting "preservation-conservation" and those supporting "utilization-

conservation."⁷ This division apparently developed in 1897, when two of the founders of the conservation movement, John Muir and Gifford Pinchot split up over a policy issue (Nash, 1973).

However, as Gale (1972) and Schnaiberg (1977) point out, the early environmental movement never did attain any significant membership size. Its impact on the political and social system was neither major nor sustained, except for the first decade of the present century when the "conservation-wise use" philosophy was closely tied to the political program and ideals of progressivism. Harrington (1974) has noted that the early conservation movement dealt with the environment as a private social issue, never capturing the attention of large numbers of people. They did not mount the political campaigns to convince the political and economic elite of the seriousness of the situation. Furthermore, because the goals of this early movement were confined by a limited range of issues--preserving a back-country or blocking the construction of

⁷ A brief discussion of the two perspective will help to clarify their differences. Preservationists argued for the maintenance of wilderness areas and for their use only as aesthetic and recreational areas. These interests came to be represented in voluntary associations such as the Sierra Club, the National Audubon Society, and the Wilderness Society. On the other hand, utilizationists took the position that resources should be used wisely and to the economic advantage of all persons, not just a few hikers and campers. This viewpoint became manifest

dams-- and that the life-cycle of the early conservation movement was pretty well linked with that of the larger progressive movement as a whole, the movement declined sharply after World War I, with much of its program being co-opted by the government.

However, Harrington (1974) suggests that following World War II the conservation movement again "reappeared." Both the utilization-conservationists and the preservation-conservationists gained increasing support for their viewpoints, although there was a difference in where support was sought and obtained. The utilizationist perspective gained support and influence in governmental and industrial circles, as these two groups recognized the need for efficient resource management. The number of governmental decisions during the administration of Theodore Roosevelt illustrates an institutional approach to incorporate some of the utilizationist concerns (Harrington, 1974). On the other hand, the preservation-conservation movement, realizing the public's identification with a wilderness

in governmental agencies such as the National Park Services, the Forest Service, and the Soil Conservation Service (Morrison, 1972). It was without doubt the most influential viewpoint in the early conservation movement. This main distinction continues in the present environmental movement-- where both business and governmental concern with the environment has been of the utilizationists stripe and grass root voluntary associations of the preservationist stripe.

heritage, sought a broader public support for their position. They launched campaigns to draw public attention and support for wilderness preservation legislation and the restriction of the development of reserved areas (Harrington, 1974:56). To accomplish their goals, preservationists organized citizen based pressure groups and "increased their political, numerical, and financial strength" (Hendee, et al., 1969:212). McEvoy (1970) has observed a steady increase in membership in national preservation organizations from 1950 to 1967. Harrington suggests that:

...attracting members and contributions, allocating resources, mobilizing support behind issues, lobbying in Washington, D.C., and in state capitals were the first steps toward these groups acting as conflict organizations (1974:57).

However, Harrington suggests that two other factors-- the emergence of a holistic environmental concept and the business and/or economic elite's concern with environmental issues contributed to the brewing of the contemporary environmental movement.

By the early 1950's, environmentalists had created a movement ideology that enabled supporters of the movement and the public to interpret the physical environment and events in a manner that encouraged action to achieve movement goals. Ideologies seek a level of conceptual abstraction that will attract large numbers of active supported and sympathetic onlookers (Harrington, 1974)

and create powerful symbols that are seen to motivate and justify action. Schnaiberg (1977) argues that the ideology of the environmental movement is credited with being an important factor in motivating persons to take part in the movement and in legitimizing its claims.

The 1950's and early mid-1960's brought about a flourish of environmental consciousness-raising books. Concern about the abuses of the past and of apprehension about the fate of the future of our environment was published by a small group of biologists and ecologists who held a holistic view of the environment and the man-nature relationship in their writings.

Concern became respectable and was presented, through more popular channels, to a growing number of informed citizens, the activities of whom aroused the interests of a wide spectrum of professionals and politicians (Sewell and Foster, 1971:125).

It has been suggested that the popularity of the holistic view-- looking at the environment as a totality where everything relates to everything else-- accounts for why there was a shift during the 1960's in the orientation of the preservation organizations. McClosky accurately describes this shift:

...the focus shifted from wild lands to all places where life was threatened, Rather than just questions of land and natural resource planning, questions of technological impact were pursued. And rather than the conscious designs of

economic interests, the unintended side-effects of technology became the problem. Characterizing these concerns were mercury and lead poisoning, the ubiquity and magnification of DDT and polychlorinated biphenols, thermal loading, the spiralling energy drain, population stabilization, safe radiation levels, waste disposal and pollution abatement, and noise and sonic boom levels. The catholicity of the first wave of the conservation movement re-emerged, but with a holistic view and a foundation in basic science (1972:351).

Finally, Harrington argues that businessmen have played a role in the emergence of the environmental movement:

...those who ignore the role of business in the emergence of contemporary environmentalism do so at the risk of neglecting a major source of movement impetus (1974:72).

The scarce literature that deals with large business interest and early environmental concern appears to indicate that the business and/or economic elite showed concern and monied interests in early efforts at environmentalism.

Nevertheless, Harrington (1974) states that the economic elite has been and continue to be a potent force in defining environmental issues by affecting the environmental decision-making machinery at the upper levels of government and through the financing of certain voluntary environmental organizations and ad hoc commissions. Being a conservative supporter of the environmental movement, business interests have no objection to environmental clean-up "as long as it takes place at a reasonable rate within the boundaries of traditional profit margins and

business/government financial cooperation" (Harrington, 1974:70).

Sewell and Foster (1971) state that by the later 1960's, the environmental bandwagon "had begun to roll" and pollution became a major social issue. Environmental interest groups organized various demonstrations (Earth Day, Survival Day, Conservation Year) with the purpose of arousing public concern over environmental deterioration. By the early 1970's, public concern had clearly been aroused and involvement achieved. The media increased the tempo of the debate by its extensive coverage of environmental problems, and the political system became sensitive to the environmental issue. As Sewell and Foster have noted, many politicians see this issue as a means of collecting public support:

...some, such as Senators Edmund Muskie, and Gaylord Nelson in the United States and members of Parliament such as Jack Davis and David Anderson in Canada, have staked their political futures on its significance (1971:129).

Buttel and Flinn (1974) suggest that environmentalism emerged from its relatively obscure voluntary association origins into a substantial mass movement during the late 1960's. The movement's initial major concern was to develop a heightened public awareness of environmental problems. By 1970, public awareness was aroused and the development of this awareness is amply supported by the

available data (Erskine, 1972; Buttel and Flinn, 1974; 1976). Rosenbaum (1977) states that in contrast to the past, the mystique of the movement is more political, more militant, and more comprehensive in its social concern. Sills mentions that the "new" environmental movement has more of a social and political life:

...every aspect of the environment, not just wilderness areas and natural resources, is of concern to the movement, and the recent popularization of the basic principles of ecology has led to a much greater awareness of the interrelatedness of a man and the natural world (1975:4).

As Faich and Gale (1971) have pointed out the environmental movement is no longer comprised of outdoor recreationists of yesteryear but rather the present environmental movement is a political interest group. There has been a shift from an "expressive conservationist" perspective to an "instrumental conservationist" perspective. That is, whereas the expressive conservationist perspective was mainly concerned to actions directly related to the primary recreation goals of the organization, the present instrumental conservationist perspective is primarily concerned with a wide variety of environmental issues. Often considerable authority is delegated to executive committees to formulate positions on these issues and to represent the organization publicly (Faich and Gale, 1971). Faich and Gale's study traces the expressive-instrumental shift in one of America's

most influential environmentalist groups-- the Sierra Club. They note that the Sierra Club had shifted to an instrumental activity organization in the 1950's and that in 1971, the Internal Revenue Service had declared the Sierra Club to be an "exclusively instrumental conservationist organization", thereby revoking the tax-deductable status of the club.

To summarize, as Harrington (1974) suggests, no single factor can account for the emergence of the environmental movement. Rather, using Ross and Staines (1971) theoretical scheme, the emergence of the environmental concern revolved around sets of private interest groups and officialdom. To see the environmental movement outside of its historical specific context is to mistakenly attribute the movement as inevitably emerging from general social discontent.⁸ Rather, as it has been illustrated, the present environmental movement is deeply tied to the development of conservation issues in the later part of the nineteenth century and early twentieth century. Very much like the civil rights movement, the environmental movement passed through a relatively quiet adolescence during the

⁸ A social movement and/or social problem is never "the only show in town." Arising events and the everyday demands of life serve to make the movement and/or social problem only a portion of a larger field of experience for the movement, authority, opposition, and audience members. Only when one discusses a movement and/or social problem in retrospect does it appear to dominate public attention and to have a consistent and purposeful development. This

end of the nineteenth and the first half of the twentieth century, and then emerged as a major social movement in the late 1960's and early 1970's that was responsible for the creation of the definition of environmental issues as a major social problem.

Conclusion

In recent years, social problem theorists have generated much literature concerned with the question of how social problems come to be created, maintained, and shaped by definitional efforts (Hewitt, 1975). The subjective stance generates a set of questions founded on a suspension of the automatic assumption that people and government merely respond to objective conditions that are problems "in reality" and not by definition. The empirical questions raised are:

What is the process by which a set of conditions has become defined as problematic? Who has participated in that process, and what are their interests and goals? How has the "official plan" of action to be mounted against the problem affected its definition, the objective conditions underlying it, or the actions to be taken against it? Is there evidence that problem definitions themselves contribute

suggests that social problems and/or social movements occur within a social milieu where definitions of the condition or event are not static but vary with the amount of attention it is given and interaction with the larger society.

to the preservation of the problem and its objective conditions? (Hewitt, 1975:3)

As Blumer points out "social problems do not lie in the objective areas to which they point but in the process of being seen and defined in the society" (1971:306). All empirical evidence points indubitably to this conclusion. Sociologists who seek to develop a theory of social problems on the premise that social problems are inherent to some kind of objective social structure are misreading their world.

To attribute social problems to presumed structural strains, upsets in the equilibrium of the social system, dysfunctions, breakdown of social norms, clash of social values, or deviation from social conformity, is to unwittingly transfer to a suppositious social structure what belongs to the process of collective definition (Blumer, 1971:306).

By combining the insights of Blumer, Mauss, and Spector and Kitsuse with those of Berger and Luckmann, we realize that the theoretical subject matter for developing the sociology of social problems lies in examining in some detail the importance of a variety of interests in society that mold public opinion and the arena where various interest groups seek outcomes beneficial to themselves. These interest groups shape the institutional response to the imputed condition. Of crucial theoretical concern is to explain how these interests develop and are incorporated within the existing system. For example, in the environmental debate, there are different pressure groups, each trying not only to impose their interpretation of the

situation upon others but also trying to mold public policy. Hewitt illustrates that environmental problems have no single reality, "no consensual social object which all act with one mind" (1975:4). Sills (1975) makes a distinction between "alarmists" (supporters of the environmental movement) and "optimists" (critics of the environmental movement). He argues that both of these groups have constructed and collected "facts" to support their claims about the same situation-- that is, whether or not there is a need to be concerned about the environment. Albrecht (1976) has noted that a growth of counter-forces to the environmental movement has emerged as an attempt to decrease the popularity of the present environmental movement.

Interest groups and their publics are the creators or discoverers of social problems and their valiant champions (Mauss, 1975). The subjective approach to the study of social problems differ with previous formulations which spent the greatest part of their attention on the distribution and etiology of the rates or amounts of such "problem" phenomena as crime, drug use, or pollution. From the subjective paradigm, the evidence that there is a pollution problem is not the outcome of a high rate of pollution per se or that pollution is higher today than it used to be. Rather, the evidence is that there are many individuals and groups (claim-makers) complaining about various aspects of the environment-- water, air, or waste pollution-- and

the activities of the myriad of agencies that are mandated to do something about those complaints. The so-called "environmental problem" as a social problem, is generated and sustained by the activities of complaining groups and institutional responses to these complaining groups.

By illustrating how the environmental problem was made a social problem by the entrepreneurship of various claim-makers, it has been proposed that the explanation of the "subjective element" of social problems-- the process by which some groups successfully define a condition as a problem within their society-- is the distinctive task of the sociology of social problems. Claim-makers succeed in winning over important segments of public opinion to the support of a social movement aimed at changing that conditions and in getting governmental agencies to institutionalize and/or routinize their claims into the social structure.

This theoretical approach to the subject contains three elements that sociologists should be sensitive to when studying social problems (Kitsuse and Spector, 1973). One is a theory of interests, for many groups that participate in the process of definition do so in order to pursue, or protect their own social, political, economic, and other interests. A second element is a theory of moral indignation, for some groups attempt to define a condition

as a social problem because it offends their sense of values; "it seems wrong to them that the condition exists at all." The third element is a theory of natural history, because the subjective stance conceives social problems not as static phenomena or instantaneous events, but rather as a sequence of activities that may move through different stages. These different stages may be characterized by different casts of characters, different kinds of activities, different dilemmas, and call for different kinds of analysis. Furthermore, the development of social problems through these stages may be marked by critical contingencies that impede or facilitate it (Kitsuse and Spector, 1973).

CHAPTER 3

STUDYING UP AND METHODOLOGY

Sociologists have a great deal to contribute to man's understanding of the processes whereby power and responsibility are exercised in North America. Moreover, with a relatively abundant literature on the poor, ethnic and deviants groups, and little field research on the upper classes, there is a certain urgency to the kind of sociology that is concerned with the power of elites. Liazos states that whereas social science has accumulated an overwhelming amount of research on:

...nuts, sluts, and perverts, little attention has been paid to the unethical, illegal, and destructive actions of powerful individuals, groups, and institutions in society (1972:11).

Sociologists typically do not investigate the power-related activities of powerful organization (Sjoberg and Miller, 1973). They "routinely make bargains to study people with less power, status, and prestige" (Haas and Shaffir, 1980:246). This inattention may be because "the eyes of sociologists have been turned downward, and their palms upward" (Nicolaus, 1969:155). The challenge of C. Wright Mills (1956, 1959) for sociologists "to turn their sociological imaginations to

the study of bureaucratic elites has gone largely unheeded" (Spencer, 1973:91). Most of our research effort have been in the service of these elites. What we do know of such activities we owe primarily to the works of investigative journalists, researchers such as Ralph Nader, the courts and Congressional committees.

The 1970's brought a growing awareness that our major societal institutions were not serving the public interest and that these institutions must be made more visible and accountable to the public. As illustrated by the Watergate incident and the Love Canal situation, the credibility, accountability and public interest decisions of major societal institutions are presently under attack. The quality of life and man's destiny may depend upon the extent to which citizens understand those who shape attitudes and actually control the institutional apparatus. Anthropologist Laura Nader observes:

The study of man is confronted with an unprecedented situation; never before have so few, by their action and inactions, had the power of life and death over so many members of the species (1969:284).

Furthermore, by focusing too much attention to studying down and not enough to studying up, we may have inhibited the development of adequate theory and description of the world (Nader, 1969).

Spector (1980) suggests that both theoretical and methodological considerations may be responsible for a

previous lack of studies of such groups. There are, without questions, obstacles to conducting research on elites (Nader, 1969). The most obvious and persistent obstacle is research access. "The powerful are out of reach on a number of different planes" (Nader, 1969:289): they do not want to be studied; it is sometimes dangerous to study the powerful; they are busy people; they are not in one place; there is little we can offer in return for their cooperation; they may be members of a bureaucracy, thus limiting access; and so forth.

However, these difficulties are true of most groups social scientists have studied. That problems of access are any different, or at least more problematic, when studying the powerful is a proposition which has not been adequately tested (Nader, 1969). Sociologists have had problems of access everywhere they have gone. Solving such problems of access is part of what constitutes "making rapport." Surely if anthropologists have been successful in studying peoples of the world who have been at times incredibly hostile (Nader, 1969), it is rather annoying to discover that sociologists have been so timid in studying the powerful at home.

Access to the powerful might be enhanced if sociologists develop a methodology for studying up. Sociologists need to share their field experiences with each other so that they can develop a methodological working model as

to how to approach and gain access to the powerful. This development helps meet the "need for working students in sociology to communicate the procedures and strategies of field research they have found consequential in their own studies to the less instructed or less experienced" (Habenstein, 1970:1). Smigel (1959) has noted that it is important to build a body of knowledge based on the experiences of previous field research. The systematic recording of those experiences will lead eventually to a greater understanding of the research process of field research as well as to a refinement of field research techniques and strategies (Shaffir et al., 1980).

Broadhead and Rist (1976) argue that the development of alternative methodologies will not by itself overcome the difficulties social scientists have experienced in studying the powerful. Without discrediting the importance of reorganizing a framework that "politically and financially insulates them (researchers) from pressures to compromise the data and turn attention to 'safe' issues" (Broadhead and Rist, 1976:330), the development and discussion of alternative methodologies will allow the researcher to go out in the field with knowledge of and expectations of this heterogeneous group. At least, social scientists will be less intimidated by the powerful.

In this chapter, I would like to provide a discussion of how the data was collected in my research of the Love Canal

situation. Problems, issues, and other methodological considerations will also be dealt with.

Collection of Data

Although much has been said and written about different methodological techniques, a question that most social scientists still find perplexing when conducting their research is what given method of collecting data will be used. Some scholars have advocated that certain methods, by virtue of their intrinsic qualities, give the researcher more information and precision about the subject matter under study than data collected by other research methods (Becker and Geer, 1970). Others have counter-argued this proposition by claiming that different kinds of information about man and society are gathered most fully and economically in different ways, and that the problem under study properly dictates the methods of investigation (Trow, 1970). Reichardt and Cook suggest that although one's paradigmatic stance is not unimportant in choosing a method, "paradigms are not the sole determinant of the choice of methods" (1979:16). The research situation is also an important factor. Trow further argues that no two contrasting methods would produce "equivalent" kinds of data, "and should not be asked to, but rather produce different kinds of data designed to answer quite different kinds of questions about the same general phenomenon" (1970:144).

It appears that the method used to collect data is at least partly dependent upon whether or not the sociologist

is trained or comfortable with qualitative or quantitative research techniques, as if it were an either/or issue. It is not so much a question of whether or not certain methods are "better" or more appropriate but rather that sociologists have made it a habit of practising a certain methodology of gathering data and ignored others. Reichardt and Cook (1979) have also observed this polarization of research methods and highlight some of the potential benefits of using qualitative and quantitative methods together. There is a strong correlation between the use of quantitative methods and adherence to the quantitative paradigm. Similarly, "researchers who use qualitative methods do subscribe to the qualitative paradigm more often than to the quantitative paradigm" (Reichardt and Cook, 1979:16). Rather than the research situation dictating what methods will be used, the researcher's theoretical and research practices often dictates how data will be collected.

In recent decades, the field of sociology has witnessed a spirited debate between, on the one hand, those who have sharply criticized qualitative sociologists for unscientific sampling and research techniques, for failing to document assertions quantitatively and hence demonstrating bias, for apparently accepting impressionistic accounts, and for taking on the role of the journalistic snoopers (Alpert, 1952; Hanson, 1958; Zelditch, 1970); and, on the other hand, those who have been opposed to samples,

statistical jargon, questionnaires, often on the ground that they destroy the field workers' conception of a social system as an organic whole to the simple level of a quantified image (Becker, 1956; Zelditch, 1970).

Zelditch points out:

To some extent the battle lines correlate with a relative concern for "hardness" versus "depth and reality" of data. Quantitative data are often thought of as "hard", and qualitative as "real and deep"; thus if you prefer "hard" data you are for quantification and if you prefer "real, deep" data you are for qualitative participant observation (1970:217).

However, the question sociologists have yet to respond to is: "what to do if you prefer data that are real, deep, and hard." The issue is not only whether sociologists should recognize and accept that there is no single method of gathering data but rather, that attention might be directed to the following questions: What kinds of methods and what kinds of information are relevant to the research topic at hand? How can the "goodness" of a given method over others be evaluated and justified?

A detailed discussion of the complex questions being raised is beyond the scope of this thesis. But I would like to draw attention to the observation that although researchers often devote a great deal of time and space to discuss the sophistication, reliability, and validity of the selected research methods, little attention is given to why they

were selected in the first place over other methods. If social scientists have a "kit of tools" (Trow, 1970) to which they turn in order to find the methods and techniques most useful to the problem at hand, discussion should also focus around the use of that particular method over others.

In my research, I adopted a qualitative approach, rather than a quantitative approach, since I was not so much interested in establishing precise measurements between variables as with providing a detailed historical and descriptive analysis of how residents of the Love Canal and United States government officials came to define the Love Canal situation as a social problem. The quantitative paradigm generally seeks the "facts" or "causes" of social phenomena with little regard for the subjective states of individuals. The research question I was raising was concerned with the subjective interpretation of how people came to define the Love Canal as a problematic phenomena. I required a method that provided a first-hand account of the individual's retrospective interpretation of the Love Canal situation. The qualitative paradigm has developed reliable research techniques that are "concerned with understanding human behavior (and actions) from the actor's own frame of reference" (Bogdan, and Taylor, 1975:2).

Designing a questionnaire that would yield a quantified measurement to my unit of analysis poses obstacles

that would have been most difficult to overcome. For instance, since the Love Canal is a current on-going social controversy, how does the researcher incorporate new evolving issues or events to a pre-structured, fixed quantifiable questionnaire. Furthermore, I would face the problem of constructing a standardized questionnaire that may contain issues that are irrelevant to certain individuals and/or groups because social controversies contain a great number of actors and/or organizations who do not participate in the same event on the same level. This would have created gaps and difficulties in the analysis of the data. A quantifiable fixed questionnaire would not produce the dialogue that conceptualized the individual's subjective and unreported understanding of the transformation of the Love Canal into a social problem.

On the other hand, I felt that participant observation would have been both economically and practically unfeasible to the research problem at hand. Social controversies involve numerous participants and to attempt to study all of the participants located in various areas of the United States associated with the Love Canal situation periodically would be financially very costly and time-consuming for a graduate student. Obtaining access to study public officials over an extended period of time in which the researcher "hangs around" would be difficult to obtain

given the generally accepted fact that public officials are very busy people who may be suspicious of social scientists studying them. Rather, because much has been written and published on the Love Canal, I felt that library, documentary, and bibliographic research, as well as interviews, were the most appropriate research tools to select for my particular research interests. The interview enabled me to probe and reconstruct the individual's interpretation of the topic studied, as well as to directly discuss the issues that are of concern to the research. The interviews tested the hypotheses, filled in blank spots in the information already assembled, and produced interpretations, clarifications, and elaboration on issues not made clear in the available documents or unlikely to appear in published sources.

The bulk of the data was collected by interviewing key public figures involved in the Love Canal situation. Table 4:1 provides a list of the individuals and/or agencies that were interviewed. Respondents were initially selected on the basis of those public figures identified by The Niagara Gazette, a local newspaper that has given the topic extensive media coverage, and The New York Times, as being actively involved with the Love Canal. Inquiring about participants who have played a significant role in the Love Canal issue, respondents informed me about individuals who have escaped media attention, but nonetheless critical

TABLE 4:1

Names and Title of the Individuals Interviewed

<u>Name of Person</u>	<u>Title</u>
Axelrod, Dr. David	New York State Health Commissioner
Brown, Michael	Former Reporter for <u>The Niagara Gazette</u>
Cook, Roger	Board Member of the Ecumenical Task Force
Dubner, Nancy	Executive Officer of the New York State Department of Transportation
Gibbs, Lois	President of the Love Canal Homeowners Association
Goddard, Charles N.	Executive Officer of the New York State of Environmental Conservation
Herbert, Sarah	President of the Love Canal Renters Association
LaFalce, John	<u>Congressman of the district of Niagara Falls, New York</u>
Martin, Thomas	Board Member of the Ecumenical Task Force
Moore, Dr. Paul	Chairman of the Ecumenical Task Force
Ogg, Donna	Executive Director of the Ecumenical Task Force
O'Laughlin, Michael	Mayor of Niagara Falls, New York
Schroeder, Karen	Former member of the Love Canal Homeowners Association and Love Canal resident
Thornton, Elena	Former President of the Love Canal Renters Association

TABLE 4:1 (CONTINUED)

<u>Name of Person</u>	<u>Title</u>
Tyson, Ray	Reporter for <u>The Niagara Gazette</u>
Paigen, Dr. Beverly	Cancer Research Scientist employed by the New York Department of Health at Rosewell Memorial Institute in Buffalo, New York.

to the development and implementation of social policy and government action to the Love Canal problem. All of the interviews were taped, with the exception of Karen Schroeder who, because of her lawyer's advice, requested that the tape-recorder not be used during the interview.

The use of a reliable (tape-recorders have been known to have mechanical difficulties during the interview) tape-recorder makes it possible for the researcher to recapitulate and review in detail the 'feel' of the interview situation and to sensitize himself to its dynamics. The researcher may be so preoccupied with "getting the interview done" that he may not, during the time of the interview, read important cues. It was only after listening to the tapes that I discovered that in a number of instances the respondents would use a variety of techniques to distract my attention in the hope of avoiding answering the question asked. Public officials are experienced and expert in the art of being interviewed. Studying the tapes enabled me to better understand the respondents' knowledge of interviewing techniques and to gain insights into some of the methods utilized by the respondents to avoid answering questions. For instance, respondents would attempt to change the topic by highlighting a particular statement. By overemphasizing the importance of the statement, respondents would direct my attention to other issues. Listening to the tapes made me aware of these strategies.

The Newsons (1976) have correctly observed that the tape-recorder is not a time-saver. "Transcribing takes hours of labor, (it is a tedious process), and analysis becomes far more complicated in proportion to the vast increase in the sheer amount of data brought back" (Newsons, 1976:33). However, if one cares about having the precise documentation of the interview,

...the tape-recorder is necessary to put flesh on the bare statistical bones, and indeed to ensure that the bones have been correctly strung together in the first place (Newsons, 1976:33).

Some people have argued that the tape-recorder is an inhibitor, that the respondent will be hesitant to speak freely because he/she is conscious that the recorder is present in the room. Far from being an inhibitor, I found the tape-recorder to be a facilitator in the interview exchange. It allowed me to give all my attention to the interview situation, without worrying about writing down responses in longhand, and to probing flexibly and effectively. Comparing the interview where the respondent did not permit the usage of the tape-recorder, the interview is in fact demonstrably shorter and less informative.

Respondents did not appear to be inhibited by the use of the tape-recorder. The majority of the respondents had been interviewed before on the topic by reporters and so they were accustomed to speaking on the record. In fact, they expected it. Often they would direct me to the

electrical switch even before I would remove my tape-recorder from my briefcase.

Obtaining a precise documentation of the interview not only makes the respondent accountable for what is said, but it reassures both the interviewer and the interviewee that there will be no misquoting of what was said (Spector, 1980). If critics of the tape-recorder argue that such practise creates tension in the interview situation

consider how the unspoken message 'This bit of great significance' is received by the respondent if the interviewer suddenly starts writing hell-for-leather, and it will be clear that the tape-recorder, switched on throughout, avoids this kind of speech-inhibiting judgment being made or perceived (Newsons, 1976:34).

The Interviews

I wrote a letter, identifying myself as a sociology graduate student, who was interested in interviewing them. If no immediate reply was received, a second letter was sent to remind the respondent of the research. If this failed, a final registered letter was mailed, informing the respondent that if he did not reply within the time period established in the letter, I would conclude that he was not interested in participating in the research and this information would be recorded in the methodological chapter (see Appendix I). In the letters, I outlined my theoretical interest and made brief mention of why I was requesting

the interview. Such a statement, I judged, would put the respondent at ease, for at least he/she would know why and for what purpose the interview was being requested. It would also provide some initial information about the research.

Since public officials are confronted with large volumes of correspondence (Hoffman, 1980), I tried to obtain their attention by using the University letterhead stationery. In order to solicit their interest I mentioned that since there might be the possibility of my work being published, I hoped to avoid inaccurate and/or unjustified statements by including an accurate representation of all of the major viewpoints in my sample. This device was used to entice the respondents to participate in the research by suggesting that they might profit if they are able to gain public recognition as responsible and concerned citizens.

All of the individuals and/or organizations contacted accepted an interview, with the exception of Hooker Chemicals and Plastics Corporation and the New York State Department of Environmental Conservation.

The interviews were both structured and exploratory (see Appendix 2). Data was collected on the following topics: (1) the individuals' and/or agencies' first awareness of the Love Canal chemical situation and a retrospective recall of the Love Canal as being problematic; (2) how and through

what channel(s) that awareness emerged; (3) the role played by the individual and/or agency in the development of the Love Canal as a social problem; (4) the individuals' and/or agencies' perception and recognition of the Love Canal as a social problem; (5) and general social, economic, and political information about the Love Canal.

A series of questions was designed prior to the interviews. The schedule is necessary because of the number and complexity of the questions asked and because of the importance of wording and order.

It is used as a core to the interview, and provides a basic structure on which the...interviewer can build a relatively free conversation (Newsons, 1976:34).

Although the schedule provided some sort of guide to work with, probing questions made up at the moment, and together with a sensitive use of pausing, hesitation, facial expression, tone of voice, and an invisible schedule, allowed me to maintain an appearance of spontaneity, naturalness and ease. The importance of a relatively free and natural conversation is discussed by the Newsons, 1976. Caplow comments:

If the interview is to function as a highly facilitated conversation, the respondent must perceive it as a conversation, without being much aware of the structure of the interrogation, the order of questions, or the objectives of the interviewer. The interviewer may take notes, use recording devices, or in other ways signalize the situation as an interview, but he must preserve the illusion of spontaneity and of free response on either side (1956:171).

Where it was possible, I tried to obtain background information, what is referred to as the profile of the interviewee, (i.e., who this person was, what position this person holds in the organization or community, what has the person previously said or done in this controversy and so forth) before I went to interview the respondent.

"Asking the right questions depends on a judicious use of what is already known to find out what should be known" (Useem, 1979:84). Spector (1980) states that by doing "backstage preparation" the researcher gains some control over the interview. Library, documentary, and bibliographic research are critical elements of such works. "They shape the researcher's sampling procedures, the preparations for interviewing, and the interview situation" (Shaffir et al., 1980:25).

By incorporating previously reported facts, names, or incidents into my questions, I communicated a number of messages to my respondents. Firstly, respondents learned what I already knew and were less inclined to waste time going over familiar points and therefore the discussion could proceed more directly to essentials. By making the respondent aware that I was familiar with a given issue, it enabled me to collect data on issues of relevant analytic categories that were not "saturated" (Glaser and Strauss, 1967). It also meant that some information could not be

hidden. Secondly, dropping "inside information" (Hoffman, 1980) made my informants better able to appreciate my level of analysis of the situation and hence initiated more appropriate and accurate responses. After transcribing the interviews, I observed that the interviews collected at the beginning of the study, when I had a limited knowledge of the complicated issues and details of the Love Canal, were shorter, less informative, and the answers resembled those given to a novice. Towards the end of the study, the interviews were much more in depth and the respondents were more likely to discuss "inside information" more freely and skip preliminary explanations. Another factor that could have accounted for this observation was that "the word got around" among public officials that I was studying the Love Canal situation for some time and therefore they assumed that I had been informed on what was going on. For instance, they would state "well you spoke to X and I am sure he told you about this".

Spector observes that public figures tend to expect this preparatory work "and, in fact, a mastery of what is in the public record."

They may grow impatient with questions that could be easily answered by a look at public documents or they may not take an uninformed researcher seriously (1980: 100).

For example, often respondents would abbreviate the names of organizations expecting me to be familiar with their

vocabulary. They also assumed that I was aware of past and recent news developments of the Love Canal situation.

The main objective of the interviews was to obtain an historical and descriptive account of how the Love Canal was transformed into a social issue. Often, I would verify what was told to me by referring to newspapers and/or other published sources that were available.

In addition to these interviews, I listened to several tapes that were made available to me by a reporter¹ who had conducted various interviews with the following people: Bruce Davis (Vice-President of Hooker Chemicals and Plastics Corporation); Michael O'Laughlin (Mayor of Niagara Falls, New York); Jack Brian (representative from the Task Force Office); Lois Gibbs (President of the Love Canal Homeowners Association); and various community residents of the Love Canal.

Finally, all articles on the Love Canal that were published in The Niagara Gazette were studied. Letters, legal documents, memorandums, documentaries, and other forms of written materials that were given to me by the

¹ These interviews were conducted by a Scandinavian reporter, M. A. Lafon, who is currently an Assistant Professor in the English Department at McGill University. Dr. Lafon was doing a story for a local Scandinavian newspaper and her interviews were conducted in August/September of 1978. My interest in the Love Canal began after listening to these tapes. I wish to thank Dr. Lafon for making these tapes available to me.

respondents were also studied. Five public reports published by private and government sources were analyzed.

Research Issues When Studying Public Figures

Confidentiality, conducting research in a political context, and gaining access into bureaucratic settings were issues that I confronted during the research process.

Confidentiality

There are some situations for which the offer of confidentiality and anonymity may be unnecessary and technically a bad choice (Rainwater and Pittman, 1967). In trying to further public accountability, Rainwater and Pittman (1967) argue that when researchers study public officials they may need to avoid promising confidentiality. They do not discuss whether disguised research is ethical in such circumstances but others have argued that it might be (Christie, 1976; Galliher, 1979, 1980; Spector, 1980).

Spector (1980) argues that whenever we are dealing with well known public figures, we should seriously consider citing their real names rather than granting anonymity. The reason for this is "that many statements derive their significance from the fact that they are said by public figures whose previous statements are a matter of record" (Spector, 1980:106). If the source is not identified, the reader cannot evaluate the relevance of the analysis being

made. This makes it impossible for other scholars to replicate the study. Rainwater and Pittman note:

...in some situations the applicability of research findings to applied goals will be rendered almost impossible if true confidentiality is maintained. And in some other situations it may be impossible to communicate the findings once the informants have been told that what we see and hear will be kept confidential. (1967:364-365).

Some researchers who have guaranteed anonymity to their subjects later concluded that it would have been desirable from a scientific point of view to have identified the organizations and individuals. Very late in his project, Colvard attempted to renegotiate the original research bargain. Colvard comments:

It was only after this first serious field-work of my own was over that I began to realize that the custom of withholding names was a professional and political norm rather than one supporting scientific ideals. Any such procedure is actually a form of censorship...The ideal of scientific documentation is that of full disclosure of evidence essential to critical interpretation, and ultimately replication. The burden of proof that names are not essential to social science field reports should be on the investigator (1967:343-344).

I decided that because the Love Canal was a national social controversy, that had received tremendous local and international media coverage, the significance of my analysis would have been incomplete if the identities of the organizations or individuals had to be suppressed. My informants quickly taught me that they did not presume

or seek the normal custom of anonymity. The respondents did not object to the use of the tape recorder. In fact, as it was mentioned before they anticipated such practise on my part. When they chose not to speak on the record, they told me that the information given was off the record, and to turn off the tape-recorder. Another instance of where informants assumed that they were speaking on the record was when two state officials also kept record of what was said during the interview. They expected me to quote them and they would hold me responsible for quoting them accurately.

Since most controversies contain many viewpoints and can be interpreted in a number of lights, many informants want the researcher to know the story from their point of view "hoping that in the final version, their action will not be described only through the testimony of their adversaries and enemies" (Spector, 1980:106).

Rainwater and Pittman have observed:

Since publically accountable individuals often recognize their accountability and the useful purposes that might be served by sociologists studying them, one can often gain a good deal of cooperation without the promise of confidentiality (1967:366).

Thus, informants sometimes want and have a special interest in seeking to speak on the record in the hope that when the researcher writes the report, they will be portrayed in a favourable light, as champions, and not as villains, or

irresponsible citizens.

Re-evaluation of granting confidentiality to public figures reveals that sociologists should seriously question whether such practise is desirable from both a methodological and ethical stance (Galliher, 1980). From a scientific point of view, the analysis is seriously inhibited by the practice of promising anonymity to public figures.

In recent years a debate has arised among sociologists as to whether or not the American Sociological Association should alter its Code of Ethics as to support the right to conduct research on the behavior of those in public positions. Galliher (1980) states that although publicly social scientists have not objected to the general idea of such research, they have simply ignored incorporating the idea into their methodologies and Code of Ethics.

The report of the American Sociological Association Committee on Professional Ethics (The American Sociologist, 1968:316) recognized some areas of "unfinished business" which were "impossible to resolve" including the following question:

To what extent can public figures claim the same right of privacy as ordinary citizens? To what extent does the injunction about the confidentiality of research sites prevent legitimate criticism of organizations that have cooperated in the research? ... Clearly, much more thought and analysis must be devoted to such questions, and others as well.

However, since the Committee's report and the raising of the question, such thought and analysis apparently have not matured. Galliher argues:

...having heard of no opposition from other sociologists to the attempt to protect human subjects, through the Code, one may wonder if their silence indicates that they see these rules as reasonable, necessary, and perhaps moral and humane as well (1973:95).

In re-evaluating the present professional Code of Ethics, Galliher concludes:

The question is, how much honor is proper for the sociologist in studying the membership and organization of what he considers an essentially dishonorable, morally outrageous, and destructive enterprise? Is not the failure of sociology to uncover corrupt illegitimate covert practices of government or industry because of the supposed prohibitions of professional ethics tantamount in supporting such practices? (1973:96).

In addition, the notion of informed consent, as spelled out in the federal regulations, were instituted "because some groups of subjects lack power relative to researchers and hence have less capacity to fully choose to participate" (Thorne, 1980:293). Public officials "are less in need of the protection granted by the principle of informed consent. They may also warrant less protection" (Thorne, 1980:294). Apparently the poor and powerless are least able to keep their private lives private from the social scientist.

As sociologists are turning their attention to studying public officials, they are questioning the appropriateness of the present Code of Ethics. Some sociologists are realizing that when research deals with the activities of the more powerful and affluent, the same quality and measure of protection is not required.

Some people question the appropriateness of conducting research on the basis of not granting anonymity and confidentiality. "Sociology, more than history and perhaps other social sciences, has been drowning in a sea of arcane statistical procedures" (Galliher, 1980:301). These statistics usually require a search for large numbers of invisible subjects which must be easily gathered or observed. The confidentiality of the subject are masked under statistical jargon. These critics seldom get around to discussing the ethical consequences of conducting research where confidentiality is not guaranteed because it does not meet their technical sophistication or requirements. The issue of granting confidentiality to public officials is a political decision rather than an ethical or scientific decision. Galliher notes:

By alleging that certain methodologies are simply not scientific, one can ostensibly disallow the researcher on professional and intellectual grounds, rather than admitting to political reason. (1980:300-301).

Research in a Political Situation

When social scientists conduct research in a political situation we will be accused of being biased since the spokespersons of the many involved parties will be sensitive to the implications of our work. If the results of the study portrays them in an unfavorable manner, they will challenge the validity, reliability, and significance of the study. Becker argues that

...since they (the involved parties participating in the political situation) propose openly conflicting definitions of reality, our statements of our problem is in itself likely to call into question and make problematic, at least for the purpose of our research, one or the other definitions. And our results will do the same (1970:2).

If we were to accept Becker's proposition that when conducting research in a political context, "the question is not whether or not we should take sides, since we inevitably will, but rather whose side we are on," it would seem that even if our colleagues do not accuse us of bias in research in a political situation, the interested parties will. They may not accuse the sociologists of collecting false data, but of not collecting all the data relevant to the problem. They accuse him, in other words, of seeing things from the perspective of only one party to the conflict, or of not having the complete picture (Becker, 1970).

Such an accusation, however, may reflect a situation where an interest party did not make their perspective available to the researcher. For example, I tried on numerous occasions to obtain the point of view of Hooker Chemicals and Plastics Corporation regarding the role they have played in the Love Canal case and was unsuccessful in gaining entrance since they refused to be studied. I wrote them requesting an interview. Edward Joseph, the Public Relations Manager, stated that because Hooker was involved in litigation they were unable to grant me an interview. Instead of an interview, I received eight issues of Factline.³ I then sent Hooker a registered letter stating that:

After having interviewed the various individuals and agencies involved with the Love Canal situation, we have come to the conclusion that listening to Hooker's point of view is crucial to our research. We are hoping to avoid an inaccurate representation of Hooker's position in the Love Canal situation. We are aware that you are involved in litigation which constrains Hooker's ability to communicate and discuss specifics concerning the Love Canal, but we are hoping that some mutual agreement can be arranged.

No response was ever received from Hooker Chemicals and Plastics Corporation.

³ Factline is a question and answer publication that Hooker initiated in 1979 to communicate with the public and all concerned.

Some scholars have noted that researchers who study political situations will conduct a biased investigation. The researcher will be presented with conflicting viewpoints. In the analysis of the data, the researcher may select issues he would like to emphasize and ignore those he regards as irrelevant. Respondents may refuse to be studied, or avoid discussing relevant issues, thereby limiting the researcher's access to data. Therefore, it is a methodological concern to not only attempt to include in the sample all of the viewpoints in an issue but to make accountable those respondents, who for whatever reason, refuse to participate in the research. This may force public figures to be more sensitive and cooperative in making their viewpoints available to the researcher.

Gaining Access into Bureaucratic Settings

When studying public figures, research access is under the control of third parties whom we may call "gatekeepers" (secretaries; executive officer; administrative officer, etc...) (Wax, 1980). Researchers typically face the problem of trying to escape the controlling influences of the gatekeepers and in establishing a direct contact and rapport with the respondent.

A very common method used to limit access to research is by extensive bureaucratic delays. Letters are exchanged asking for more specific information about what is requested.

Numerous staff meetings are held to decide whether or not access should be allowed. Finally, there is the problem of establishing an appointment at the convenience of both parties. For instance, I first contacted the State of New York Department of Health on January 21, 1980 and after the exchange of numerous correspondence, an appointment was finally established on May 6, 1980. Lengthy bureaucratic delays may dissuade the impatient. Requesting specific information about what the researcher has in mind and informing the interviewer what are legitimate grounds, means that the respondent is stressing his definition of the situation. The respondent gains control over the interview since this device enables him to introduce his notions of what is relevant (Dexter, 1970). Dexter (1970:5) defines an "elite interview" as an interview situation where the investigator allows "the interviewee to teach him what the problem, the question, the situation, is-- to the limits, of course, of the respondent's discretion." Although researchers have to accept that when conducting research with public officials, they must expect an exchange of correspondence and incorporate this type of work into their methodology, they must be sensitive and aware of the implication of encouraging the interviewee to structure the account of the situation.

When dealing with the bureaucratic elites it is a good idea to confirm the appointment since meetings can be cancelled without notice given. A common explanation is that "something came up and it could not be helped." The researcher may find himself interviewing another member of the organization, usually someone from a lower rank. This did occur during the course of my research. I travelled some distance only to discover that the New York Commissioner of Transportation was not in his office but that the Commissioner had requested that his executive officer "take his place."

Rist (1975) has observed that on gaining entry into bureaucratic organizations, it is increasingly expected of the researcher to negotiate with the gatekeeper for access. By specifying the condition of reciprocity to their own benefit, gatekeepers can require an exact specification of the substantive problem that the researcher will investigate, and thus gain control over the interview situation. For example, one of the agreements reached with the New York State Department of Health and Department of Transportation was that a copy of the questions being asked would have been forwarded in advance of the meeting. The New York State Department of Environmental Conservation decided that instead of granting me an interview, they thought it was best that I submit a list of questions I wanted answered "and we will respond within the constraints placed upon us" (Letter from

Charles N. Goddard, Executive Officer, June 4, 1980). As it presently stands, in gaining entry and conducting research, the conventional agreement between the researcher and the powerful usually consists of a delimited substantive research problem that requires an equally delimited access to data (Broadhead and Rist, 1976).

Becker (1964) notes that there is an irreducible conflict between the interests of the researcher and representatives of highly organized and powerful organizations. It is not surprising then, that the researcher finds restrictions placed on the time span, depth, and scope of the investigation. "They want to ensure that the research is compatible with their interests and casts their activities in a favourable light" (Haas and Shaffir, 1980:246). Often, I had to negotiate the amount of time that would be made available for the interview. The respondents quickly taught me that certain areas were not to be investigated and if I probed into these areas I was told that they had no comments to make on this issue or they would simply change the subject. Becker and Horowitz (1972:63) assert:

Ordinarily, the agency will not see its own operations as one of the causes of the problem, and thus those operations will not be included in the area of the researcher (bargains) agrees to study; by implication, he agrees not to study them.

Two major strategies were used to overcome reluctance to talk about difficult and taboo issues. One was to ask

the taboo questions in an indirect, generalized form. For example, instead of inquiring "why did the City of Niagara Falls not recognize the problem in the 1960's?", I would ask, "was there not any concern about the Love Canal in the 1960's?" After the respondent would answer this question, he was less reticent about answering the question which followed, "did not the residents ever bring the Love Canal situation to the city's attention." In time he might even answer why the city decided to ignore the problem in the 1960's.

The second technique for breaking down reluctance to talk about taboo issues was to present the respondent with challenges designed to be provocative. Contradictions, either in the respondent's answer or in evidence found elsewhere (i.e., newspaper accounts) were voiced and the respondents were asked to explain these discrepancies. For instance, if a respondent was asked about conflict between individuals and/or groups, and he replied that there was no conflict, he would be asked (on the basis of previous information), "how do you explain why Lois has publicly criticized your office?" These challenging questions often stimulated interest and lengthy discussion. However, the next question was more general and less challenging since contradictions can be dangerous-- it may cause loss of good will, create tension, and even terminate the interview.

Spencer's (1975) study describes eleven strategies employed by the bureaucratic elite of West Point to control his research. Encountering similar control strategies, these eleven control devices can be collapsed into the following four categories:

1. the assignment of personnel to act as mediators between the respondent and the researcher limits access to and control over the research situation and causes lengthy bureaucratic delays;
2. refusal to allow access to data by classifying them as "For Official Use Only," "Confidential," "I was not in office then and the information has been lost" or concealment of information that is potentially available;
3. limited access only to data that are either incomplete, distorted, or managed, in other words, pre-packaged; and
4. explicit control of the research situation by the assignment of personnel to "escort" and introduce the researcher to either safe informants, data, or situation.

Solutions to how social scientists may overcome these difficulties is very much in demand. Some scholars claim that government should institute laws which allow social scientists access to information affecting the public interest. Others have argued that when studying public officials, social scientists should not necessarily apply the same ethics developed for studying the private. In a much cited essay, Rainwater and Pittman conclude that

...sociologists have the right (and perhaps also the obligation) to study publicly accountable behavior. One of the functions of our discipline... is to further accountability in a society whose complexity makes it easier for people to avoid their responsibility (1967:365-366).

Conclusion

Identifying the methods used to collect the data is a critical element of the research process. Replication and evaluation of studies is dependent upon this. Equally important is the discussion of methodological difficulties encountered during the research. Sociology will profit from researchers validating what methods are or will be useful in collecting data and on the strategies developed to overcome methodological problems.

Theoretical, practical and methodological problems in conducting field research on the upper classes have been discussed. I have argued that sociologists need not grant anonymity and confidentiality to public officials; that sociologists should make public officials accountable by including a sampling reference as to who decided to participate or not participate in the study; and highlighted some problems and strategies that developed in gaining access into powerful bureaucratic organizations.

CHAPTER 4

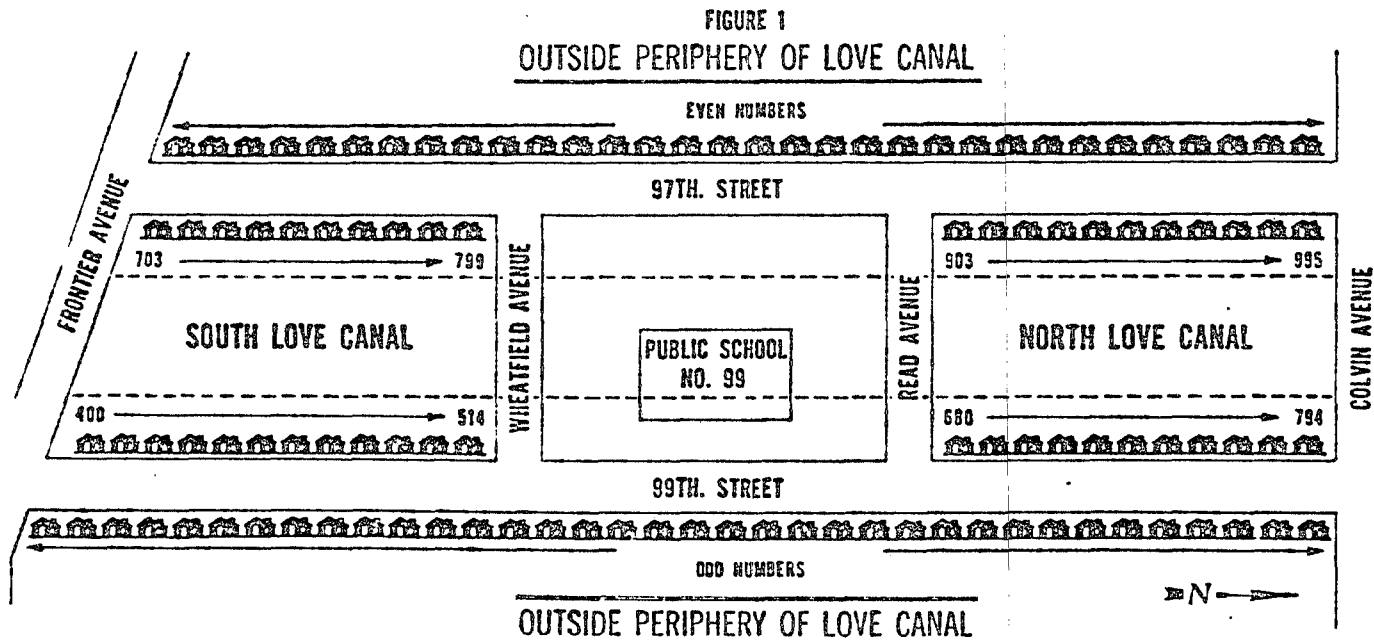
THE LOVE CANAL CASE

A brief overview of "The Love Canal Case" is warranted before attempting to analyze how the Love Canal became a socially constructed social problem. In order to acquaint the reader with the case under examination, some general historical details and description of government involvement with the Love Canal will provide a background and context for understanding the emergence of the "Love Canal" as a "social" problem.

Historical Details

The Love Canal is a rectangular, 16-acre, below-ground level landfill located in the southeast corner of the City of Niagara Falls, about one-quarter mile from the Niagara River (Whalen, 1978). The City of Niagara Falls is located in Niagara County, New York, and in 1970 had a population of 85,615 (Vienna et al., 1980). The southern and northern sections of the Love Canal are bordered by single family homes while the middle section is bordered by a public elementary school (Figure 1). In July of 1978, in the homes immediately adjacent to the landfill there were 97 families resident, composed of 230 adults and 134 children.

FIGURE 1



Source: Whalen, Robert. (1978). Love Canal: Public Health Time Bomb. The Office of Public Health, New York State, p. 6.

During the 1977-78 school year, 410 students were enrolled at the school (Whalen, 1978).

Although, "Love Canal" is today synonymously associated with pollution and a national disaster, in the late nineteenth century and early twentieth century the Love Canal was seen by residents initially as an area of potential economic prosperity and, later as, a recreational facility. In May of 1892, "a flamboyant entrepreneur" named William T. Love, had a dream of building a model-city with convenient access to inexpensive water power and major markets (Brown, 1979:34). By January of 1893, "Love felt that he had enough prominent people in favor of his idea to publicly announce his plan for a model city" (Whalen, 1978:2). Love's sales speeches were accompanied by advertisements, circulars, and brassbands, "with a chorus singing a special ditty to the tune of 'Yankee Doodle': Everybody's come to town,/ Those left we all do pity,/ For we'll have a jolly time/ At Love's new Model City" (Brown, 1980:8). He went to Albany where he personally politicked for a law that would charter his newly founded company, the Modeltown Development Corporation (The Niagara Gazette, May 8, 1893-- "Love goes to Albany"). The State of New York was so enthusiastic with Love's dream that they gave him "a free hand to condemn as much property as he liked, and to divert whatever amounts of water" (The Niagara Falls Gazette, May

20, 1893-- "Governor Flower signs bill"). Former New York Health Commissioner Robert Whalen (1978;2) states "Love became only the second private citizen in history to address a joint session of the State Senate and Assembly." In a letter written by two members of the New York State Department of Transportation, dated November 21, 1975, Kevin Farry and Walter Naegely state:

Love addressed the full State Assembly during a hearing on the matter (the matter was to convince the State of New York to grant his company a charter), only the second non-government official to ever do so in the State's history up to that time. When Governor Flower balked at authorizing such a liberal charter, Love went to see him, and after one meeting not only did the Governor sign the bill, but he signed a glowing testimonial predicting a population of 2,000,000 in the proposed city.

With his newly won charter and with the backing of both state and city officials, Love quickly attracted support from financial giants in New York City, Chicago and England (The Niagara Gazette, March 17, 1894-- "Telegraphic information from Love in N.Y. says he has secured funds to work on canal"; July 26, 1894-- "Secretary Davis of Model City announced the sale of \$5,000,000 in bonds to F. E. Hinckly of Chicago; June 22, 1895-- "Love holds meeting, tells people he has guarantee from one of England's strongest financial concerns for the sale of \$6,000,000 in bonds"). In October of 1893, the first factory on the townsite was opened for business (The Niagara Gazette, October 5, 1893--

"First factory opens") and less than a year later, May of 1894, work on the canal had begun (The Niagara Gazette, May 26, 1894-- "Work began on Niagara Power and Development Co. Canal on May 23rd in LaSalle Canal-- 80 ft. wide on top, 40 ft. wide on bottom and 30 ft. deep). However, Love's dream was short-lived. A full-scale financial crisis in the country, the depression of the 1890's, and Louis Tesla's idea of a cheaper means of alternative electrical power put a crunching blow to the heart of Love's plan and soon his financial backers deserted him (The Niagara Gazette, July 6, 1896-- "Love can't meet interest obligations"). Finally, in August of 1910, Love's property was subjected to mortgage foreclosure and sold at public auction (The Buffalo Courier Express, August 12, 1910-- "Mortgage foreclosure sale the last chapter"). Shortly afterwards, Congress passed the Burton Bill which in effect prohibited the taking of any more water from the Niagara River in order to preserve the falls, hence putting a serious constraint of any chance of completing the canal.

What was left of Love's dream was a mile-long trench, ten to forty feet deep and generally twenty yards wide, perpendicular to the Niagara River and old memories of Model City.¹ This area became known to residents in the LaSalle

¹ For example, between October 30, 1931 to August 4, 1966, Love's dream was still making headlines in local

section of the city², as the Love Canal area, and for several decades of the twentieth century, "the canal reportedly served as a swimming hole for children" (Whalen, 1978:3).

In 1947, a company called the Hooker Chemicals and Plastics Corporation purchased the land and the excavation "was turned to a new and ominous use" (Whalen, 1978:3). Neither the date of purchase nor the price are certain (Fred C. Hart Associates, Inc.,³ 1978:7). According to a special report presented to the Governor of New York and the legislature, Dr. Robert Whalen, former health Commissioner of Health⁴, states that "chemicals of unknown kind and quality were buried at the site for a 25-30 year period, up until 1953" (1978:3). Later on it was agreed that Hooker Chemicals and Plastics Corporation of Niagara Falls

newspapers. During this period, The Niagara Falls Gazette; The Buffalo Courier Express; and The Buffalo Evening News carried fourteen stories on the Love Project.

² Love Canal is located in the LaSalle section of the City of Niagara Falls.

³ The contractor, Fred C. Hart Associates, was hired by the U.S. Environmental Protection Agency Office of Solid Waste (contract no. 68-01-3397) in 1978 to study a ground-water, surface water and air quality contamination incident involving an abandoned hazardous waste landfill, the Love Canal, in Niagara Falls, New York.

⁴ Dr. Robert Whalen was replaced by Dr. David Axelrod.

used the site for disposal of drummed chemical wastes, including chlorinated hydrocarbon residues, processed sludges, flyash and other wastes, for a period of nearly 25 years from about 1930 to about 1953 (Dr. Vienna et al., 1980). The site was also utilized by the City of Niagara Falls for disposal of city solid waste (Whalen, 1978:3). Furthermore, some residents have claimed that they saw the army dump there (The Niagara Gazette, June 23, 1979-- "Army role eyed in the Love Canal Area"), although after investigating records and conducting various interviews the Deputy Assistant Secretary of Defense, George Marienthal, concluded that there was no evidence that the army dumped at the Love Canal (The Niagara Gazette, June 29, 1978-- "Army denies dumping in the Love Canal site").

In or about 1953, the site was covered with earth and sold by the Hooker Chemical Company to the Board of Education of the City of Niagara Falls, New York for a token of one dollar.⁵ With it the company issued no "detailed warnings" of the chemicals, only a brief paragraph in the "quitclaim document" that disclaimed company liability for any injuries or deaths which might occur at the site (Brown, 1979:35). The deed from Hooker Electrochemical Company to

⁵ The ownership of the dump site is currently shared as follows: The City of Niagara Falls, New York-- 6.58 acres; Board of Education-- 3.53 acres; and L. D. Armstrong-- 5.98 acres (Memorandum by the New York State Department of

the Board of Education of the School District of the City of Niagara Falls, New York, dated April 28, 1953 reads:

(T)he premises...have been filled, in whole or in part, to the present grade level thereof, with waste products resulting from the manufacturing of chemicals by the grantor at its plant in the City of Niagara Falls, New York, and the grantee assumes all risk and liability incident to the use thereof. It is, therefore, understood and agreed that, as part of the consideration for this conveyance and as a condition thereof, no claim, suit, action or demand of any nature whatsoever shall ever be made... against... the grantor... for injury to a person or persons, including death resulting there from or loss of or damage to property caused by, in connection with or by reason of the presence of said industrial waste (Recorded in the Niagara County clerk's office on July 6, 1953 in Lober 1106 at 467).

In an interview, Michael Brown, a reporter who had worked on the Love Canal Story for The Niagara Gazette in 1978, states that Hooker gave no "straight-forward" explanation to the school board of the "serious potential human dangers" involved in constructing a school in the Love Canal area. In a recent article, Michael Brown notes:

When the board of education, which wanted the parcel for a new school, approached Hooker, B. Klaussen, at the time Hooker's executive vice-president, said in a letter to the board, "Our officers have carefully considered your request. We are very conscious of the need for new elementary schools and realize that the sites must be

Environmental Conservation, July 25, 1978).

carefully selected so that they will best serve the area involved. We feel that the Board of Education has done a fine job in meeting the expanding demand for additional facilities and we are anxious to cooperate in any proper way. We have, therefore, come to the conclusion that since this location is the most desirable one for this purpose, we will be willing to donate the entire strip of property which we own between Colvin Boulevard and Frontier Avenue to be used for the erection of a school at a location to be determined (1979:75).

The board built the school and playground in 1954 at the canal's midsection despite the fact that during construction, the contractor hit a drainage trench that gave off a strong chemical odor and the discovery of a waste pit nearby (Brown, 1979:35). Board of Education records indicate that construction of the elementary school was halted briefly in early 1954 because of the chemicals. A letter was sent by Charles Thiele, the architect, to Wesler Kester, Chairman of the Board's Building and Grounds Committee, in January 1954 describing the chemical problem and mentioning that "it is poor policy to attempt to build over this soil" (The Niagara Gazette, April 4, 1979). Instead of halting the work and inspecting the grounds, the authorities simply moved the school eighty feet away. Housing construction on 97th and 99th Streets proceeded through the 1960's, most of the streets being completed in 1965. Slowly a community of almost 500 single family homes and a garden apartment complex of about 200 units (Griffon Manor) were built in the Love Canal area (Memorandum,

April 1979-- David Rall, Director of the National Institute of Environmental Health Sciences).

Governmental Involvement

I would like to chronologically list and summarize the involvement of governmental agencies (city, state and federal) with the Love Canal situation, without making any references as to what initiated these governmental responses-- since this will be the discussion of the next chapters.

Official government involvement with the Love Canal dates back to September of 1976 when the Department of Environmental Conservation (DEC) visited the site to investigate the Hooker Chemicals and Plastics Corporation's suspected discharge of the chemical mirex into the grounds of the area. From its investigation, the DEC discovered that the insecticide mirex was being dumped into Lake Ontario, primarily by the Hooker Corporation (The Niagara Gazette, October 3, 1976). Through the fall of that year, basement sumps and storm sewer water samples were taken and discussions were held with the chemical firm about previous dumping at the site. An analysis performed by the Division of Laboratories and Research of the New York Department of Health on samples of "ponded water" on the Love Canal submitted by DEC on September 9, 1977 showed probabilities of the presence of two or more chemicals:

trichlorophenol and lindane analogous (Fred C. Hart Associates, Inc., 1978:11). A memorandum sent from DEC dated September 6, 1977 stated that there was 144,000 ppm of PCB's in 100th Street storm sewers.

The test results caused the DEC to put pressure on the City of Niagara Falls to conduct its own hydrogeological investigation at Love Canal. In January of 1977, the City of Niagara Falls hired a consultant, Calspan, to conduct its own hydrogeological investigation of the site and to develop a conceptual pollution abatement system (Whalen, 1978:19). The Calspan tests confirmed the existence of "pretty high levels" of polychlorinated biphenyls (PCB's), hexachlorabenzene, and hexachlorocyclopentadiene (C-56) (Fred. C. Hart Associates, Inc., 1978:11). A \$400,000 project aimed at halting the spread of toxic chemicals buried in the area of the old Love Canal was recommended but never implemented. City officials stated that more intensive investigations were needed.

In October of 1977, DEC sought the assistance of the U.S. Environmental Protection Agency (EPA) in conducting an expanded study of the groundwater pollution. Finally, in February of 1978, EPA (contract no. 68-02-2764) agreed to conduct air samples in the area mainly looking for chlorinated hydrocarbons toxic substances (Fred C. Hart Associates, Inc., 1978:11). Table 4:1 represents a partial

TABLE 4:1

List of Compounds Found in Love Canal Air or Soil Samples

Chloroform	Tetrachlorobenzene (3 isomers)
Carbon tetrachloride	Benzene
1,1-dichloroethane	Toluene
1,2-dichloroethane	o, m, p, xylenes
1,1,1-trichloroethane	Benzaldehyde
Trichloroethylene	Chloro toluenes
Tetrachloroethylene	Pentachlorobenzene
Chlorobenzene	Alkyl phenols
Dichlorobenzene (2 isomers)	Hexachlorobenzene
1,2-dichloropropane	BHC's (4 isomers)
Chlorotoluene (2 isomers)	Tetra, penta, hexa chlorinated
Chlorobenzaldehyde (isomers)	anthracenes or phenanthraenes**
Dichlorotoluene (3 isomers)	2,3,7,8 TCDD and other TCDD**
Dichlorobenzaldehyde (isomer)	Hexachlorodibenzodioxin**
Trichlorobenzene (3 isomers)	Dichlorodibenzodioxin**
1,2-dibromoethane	Chlorinated naphthalenes** (isomers)
Trichlorotoluene (5 isomers)	PCB's (2 isomers)
Tetrachlorotoluene (isomers)	Octachlorocyclopentene**

* The first 21 chemicals listed were identified by both the Environmental Protection Agency and the New York State Health Department. The remaining compounds were identified by the New York State Health Department.

** Tentative Assignment.

Source: Vianna, Nicholas, et. al., (1980). Adverse Pregnancy Outcomes in the Love Canal Area. New York State Department of Health.

list of compounds found in the Love Canal. Compounds such as benzene, toluene, benzoic acid, lindane, trichloroethylene, dibromoethane, various benzaldehydes, methylene chloride, carbon tetrachloride, and chloroform can produce both acute and chronic toxic responses in human beings (Hueper, 1969; Sax, 1975). In the same month, the City of Niagara Falls hired the consulting firm of Conestoga-Rovers to develop the groundwater pollution abatement plan (Whalen, 1978:19).

In April of 1978, the State Department of Health and Environmental Conservation launched an intensive air, soil and groundwater sampling and analysis program following qualitative identification of a number of organic compounds in the basements of 11 homes adjacent to the Love Canal (Whalen, 1978:6). The study confirmed not only

...the presence of a variety of compounds but established precise levels for many of the chemicals constituents. It became immediately apparent from the data that the problem was not limited to a few homes and that a potential health hazard existed from long term exposure to the chemicals. (A)s data flowed in, it became evident that unacceptable levels of toxic vapors associated with more than 80 compounds were emanating from the basements of many homes in the first ring directly adjacent to the Love Canal (Whalen, 1978:6).

The data further revealed that "basement air samples taken from homes in the outlying area have thus far shown significantly lower levels of contaminants as compared to

the first ring of homes, both in numbers of compounds and concentrations present" (Whalen, 1978:8). The Commissioners of Health and Environmental Conservation, along with local officials, inspected the site on April 13, 1978. Based on their personal observation and the recommendations of public health specialists in the Health Department, Dr. Whalen, on April 25, 1978, officially termed the Love Canal "an extremely serious threat to the health and welfare..." and ordered the Niagara County Health Commissioner to undertake remedial measures to remove visible chemicals and restrict access to the site and initiate health and engineering studies. However, no timetable for implementation of the order had been determined by county or city officials (The Niagara Gazette, April 28, 1978).

On May 15, 1978, Michael Brown reported the results of the air tests conducted earlier by the Federal Environmental Protection Agency in The Niagara Gazette. Tests by the EPA found 40 different chemical compounds in the homes, backyards and basement air, 11 of them suspected carcinogens-- these elements included chloroform, benzene, trichloroethene, toluene, tetrachloroethene, 1,3,5, trichlorobenzene and one of these, benzene, has been linked to leukemia in humans (Fred C. Hart Associates, Inc., 1978:11).

At the request of Dr. Robert Whalen, former State Health Commissioner, the Health Department's Bureau of

Occupational Safety and Chronic Disease Research dispatched teams of investigators to the Love Canal area on June 19, 1978 to begin a house-to-house health survey of the 97 families living immediately adjacent to the landfill (The Niagara Gazette, June 20, 1978-- "Tests outlined for residents near Love Canal Site").

Four health indicators for assaying potential human toxicity in the Love Canal were selected. The indicators were miscarriages, birth defects (recent studies in developmental pharmacology suggest that miscarriages and birth defects are prime indicators of human toxicity since the prenatal period is characterized by a unique susceptibility to certain chemical agents), liver function (current experimental studies suggest that many of the chemicals agents identified at the Love Canal may play a role in development of cancer or direct injury to the liver), and blood mercury levels (mercury is an established teratogen that is readily identifiable in blood samples). The preliminary epidemiological investigation suggested that the risk for miscarriages and birth defects was higher for pregnancies occurring on the Love Canal, particularly among women living in the southern canal section. The relative odds ratio for miscarriages among women living in the 99th Street South section was 2.08, or more than twice the expected rate within the general population. The data

revealed that there was no significant differences between the observed and expected distributions for the other sections (Whalen, 1978). The data on miscarriages and birth defects gave the issue political and public salience.

On August 2, 1978, the Commissioner of Health recommended immediate relocation of all pregnant women and all children under two years of age living at the canal's southern end (The Niagara Gazette, August 2, 1978-- "Evacuation of kids urged from Canal Site"). He also ordered a delay for opening the 99th Street elementary school which is situated in the central Love Canal Section (The Niagara Gazette, August 2, 1978-- "Will seek delay in opening 99th Street School"). With this declaration on August 2, 1978, the Love Canal turned from a local to a national issue (Brown, 1979). The story ran on the front page of The New York Times and was picked up by the networks and the newsweeklies. Soon after the declaration, Governor Carey's office announced the appointment of a Task Force headed by William Hennessy, the New York State Transportation Commissioner, to recommend to him what the state should do and where the funds for the moving and eventual cleanup of the site should come from (The Niagara Gazette, August 4, 1978). Finally, William Wilcox, head of the Federal Disaster Assistance Administration, inspected the chemically contaminated Love Canal site and recommended to President

Carter that he declared this area an "emergency disaster zone." On August 8, 1978 President Carter declared this a disaster area and approved federal emergency financial aid for the Love Canal area of Niagara Falls, New York (The New York Times, August 8, 1978).

To remedy the problem, engineers and geologists devised a plan (the Love Canal Remedial Construction Plan approved by New York State Department of Environmental Conservation) to halt the migration of toxic substances through the soil of the Love Canal site to the houses at or near the site. The project consists of a drain tile collection system and a new, impervious clay cover which will prevent any more surface water from entering the canal (Whalen, 1978:19).

Since President Carter's declaration, the City of Niagara Falls, the State of New York and the federal government have spent a total of over 30 million dollars⁶;

⁶ According to the latest published figures, current estimates of total state costs for remedial action at the Love Canal are over twenty-five million dollars:

Remedial construction-- northern and central zones	\$ 4,650,000.
Permanent relocation, including acquisition of homes in rings 1 & 2	9,216,000.
Temporary relocation	5,883,000.
Health and Environmental testing	2,725,000.
Human Services Grant	200,000.
Standby bus services	500,000.
State aid for property tax relief	1,000,000.
Other	800,000.
<u>TOTAL</u>	\$25,000,000.

legal liabilities have been filed by both private citizens and government⁷; and an attempt to permanently relocate all of the residents living in the Love Canal area is triggering off tension between residents and city, state, and federal agencies.

After New York State Health Commissioner, Dr. David Axelrod's declaration on February 8, 1979 to extend the health emergency of the previous August, 1978 order, the State of New York announced that there would be no further purchases of homes, nor another massive evacuation, temporary or otherwise. The State of New York withdrew from the Love Canal Inter-Agency Task Force. A recent study conducted by the Department of Health (1980:20) revealed that "there is no direct evidence of a cause-effect relationship with chemicals from the canal at present." The health study concluded that "our findings are consistent with the possibility that a slight to moderate excess of spontaneous abortions and/or low birth weights might have occurred on 99th Street

In a recent interview (1980), Nancy Dubner, the executive officer of the New York State Department of Transportation, stated that the State of New York has spent \$40 million for remedial action at the Love Canal. In addition, the City of Niagara Falls has spent approximately seven million dollars. The Federal Disaster Assistance Administration has committed two million dollars towards these costs (Ginsberg, 1979:66-67). The federal government is presently allocating federal funds for remedial action at the Love Canal, and these figures will be forthcoming.

⁷ For instance, the federal government is suing

and historic water sections of the Love Canal area" (p. 19).

Contrary to the State's position that they are unable to confirm a relationship of illness to odors emanating from the canal, a study conducted by Houston's Biogenics Corporation (the Picciano study, 1980) for the United States Environmental Protection Agency revealed chromosome abnormalities in residents of the Love Canal area. Biogenetics examined lymphocytes or white cells, from 36 residents. In eleven residents the tests indicated abnormalities-- i.e., fragments of chromosomes, aberrant rings formed out of broken chromosome bits. The data indicated that 30% of the sample had chromosome damage, compared with less than 1% of the general population (The Times, 1980:74). Following the disclosure of the Picciano study, President Carter declared a state of emergency in the area, and empowered New York State and the U.S. Environmental Protection Agency to undertake the temporary relocation of 710 families (The Niagara Gazette, May 21, 1980-- "Federal Government declared area natural emergency").

Immediately following the natural emergency declaration, the State of New York questioned the validity

Hooker Chemicals and Plastics Corporation for \$125 million and suits by local citizens now total more than \$3 billion. The State of New York is also filing suit against Hooker Chemical Co. (Fortune, April 21, 1980).

of the health tests conducted by the EPA. Disagreement on whether the State of New York or the federal government should allocate the funds to permanently relocate the Love Canal residents surfaced into the debate. Jurisdiction disputes exist between the State of New York and the federal government as to whether or not hazardous wastes should be considered a national problem. The dispute centers around the provision to the federal funding of remedial programs at inactive hazardous waste disposal sites. State officials have voiced the complaint that federal action on funding remedial work at inactive hazardous waste disposal sites has been characterized by delay and confusion. Ginsberg's (1979) brief history of the passage and implementation of the Resource Conservation and Recovery Act of 1970 (RCRA) illustrates that the federal government has been hesitant in recognizing the seriousness of hazardous waste storage and disposal. This is so despite a report submitted to Congress on June 30, 1973 which concluded:

- (1) management of the Nation's hazardous residues is generally inadequate;
- (2) numerous case studies have shown that public health and welfare are threatened unnecessarily by uncontrolled waste discharge into the environment, and
- (3) hazardous waste disposal on the land is increasing (Ginsberg, 1979:59).

Ginsberg reports:

Notwithstanding the conclusion of the report, the Resource Conservation and Recovery Act (RCRA) was not enacted until 1976. RCRA

itself provided an eighteen month period after enactment (by April 21, 1978) for the EPA to issue regulations governing the disposal of hazardous wastes. The regulations were not issued. Litigation was initiated in September 1978 in order to force the Agency to issue the regulations required by the act. In January 1979, the court ordered an implementation schedule with a December 1979 deadline. It is not clear now whether even that deadline will be met (1979:59-60).

Thus, almost a decade has elapsed since Congress identified hazardous waste storage and disposal as a problem of grave national concern. However, the Love Canal situation has awakened the public's awareness that government response and initiative is slow in forthcoming. The reason for this is that the potential costs of identifying, investigating, monitoring and taking remedial action of such sites are tremendous.

The EPA estimates that as many of 1,200 to 2,000 dump sites around the country may contain wastes that could develop into imminent health hazards. Many of these sites are "abandoned", in that the owner or original dumper either cannot be found or cannot be charged with the cost of clean-up. According to the EPA, the minimum cost of treating these "abandoned" sites could be as high as 4.3 billion dollars (Ginsberg, 1979:57).

The Council on Environmental Quality estimates the cost at between \$28.4 billion and \$55 billion (Fortune, April 21, 1980).

Having highlighted the historical details of the Love Canal case, the focus of the remaining chapters will be to test the hypothesis that the recognition of the Love Canal as a social problem was dependent upon claim-makers organizing community and government awareness of the Love Canal situation as a problematic phenomena. Focus will be centered upon describing what initiated government awareness of and interest in the Love Canal. Particular attention will be devoted to tracing how claim-makers organized and channeled their personal concerns with the Love Canal into a legitimate public issue.

CHAPTER 5

A THEORETICAL APPROACH FOR UNDERSTANDING THE EMERGENCE OF A SOCIAL PROBLEM

Introduction

Ross and Staines note that "the analysis of social problems occur in a political context" (1971:18). This chapter offers a socio-political analysis of how social problems are organized and defined, how they are transformed into public issues, how they are subjected to competing analyses, and how different vested interests conflict over definitions of the situation.¹ The emergence of a social problem evolves around the following sequences or phases: private recognition of the social problem; public and political recognition of the problem as an appropriate issue for policy decision and government concern; public debate and social conflict about the legitimacy, seriousness, and causes of the problem (Ross and Staines, 1971).

"The career of a social problem begins with its being privately recognized as a problem" (Ross and Staines, 1971:19). Some individuals and/or groups claim that a social problem

¹ The theoretical framework outlined here will structure the analysis of the data hereafter.

exists because "what their ideology designates as an ideal state of affairs diverges significantly from what they perceive the real situation to be" (Ross and Staines, 1971: 19). The activities at this stage, the attempts to call attention to a condition and define an issue privately, are almost entirely "unofficial," conducted without societal authority. Ad hoc explanations are advanced to give the problematic situation order and hope. An attempt is made to make the event meaningful to other individuals. Hewitt and Hall (1973) observe that it is in the social context of talk that problematic situations become identified and defined. Ad hoc explanations and talk about problematic situations is an important variable in the genesis of a social problem. In the course of talk, participants give meaning to the event and bargain with each other about what line of analysis they are willing to pursue.

In the process of defining the problematic situation, they construct an appropriate causal framework which gives meaning to the problem. Once the cause and effect of the problem is identified and agreed upon, a course of action is outlined and goals are established. Hewitt and Hall note:

...actors draw on the social stock of knowledge to construct an analysis of cause and effect that supports the cure; to construct the nature of the problematic situation so that the core or basic problem mirrors the intended cure (1973: 370).

Human experience data plays a crucial role. As soon as order and meaning has been assigned to the problem, it is not difficult for people to construct generalizations that will substantiate their claims. Hewitt and Hall state that personal experiences and memory recall will be utilized to produce examples and illustrations to validate the analysis.

Indeed, it is likely that a good deal of past experience will be reinterpreted in the light of the new "insight" that has been reached-- events and incidents from the past will rapidly be reached and fall into place as the explanatory power of the quasi-theory (of talk) is explored. This ability of the quasi-theory (of talk) to explain past as well as present situations adds to an actor's conviction that they have adequately explained the situation (1973:371).

In addition, because participants will seek public support, the rhetoric used to press their claims will be rooted in general values, beliefs and social perspectives.

However, social problem activities consist of attempts to transform the private problem in the minds of some individuals and/or groups into a widely recognized public issue. Mills (1959), who developed a similar dichotomy between "personal troubles" and "public issues," stated that such a transformation requires a complex political process.

The outcomes of the process of transforming privately recognized social problems into public issues may be measured on two dimensions.

First is the matter of issue salience, which may be measured in several ways: How important does the general public rate the issue, how much media coverage does the issue receive, how intense is the response of elites to the issue (and will the economic and political elite allow the issue to mature)? Second is the question of issue legitimacy. Once an issue has gained at least some salience, the question of its legitimacy becomes pertinent. (Will there be a general consensus that a genuine social problem exists? A general consensus of causes, solutions and costs)? (Ross and Staines, 1971:21).

Spector and Kitsuse (1973) note that the ways complaints about the condition are raised and the strategies used to press the claims, gain publicity and arouse controversy are critical variables in this transformation stage. The objective seriousness, extent of a condition, or its presumed dysfunctionality may be relatively independent of success or failure of this transformation. "That is, the relationship between 'objective conditions' and the development of social problems is variable and problematic" (Spector and Kitsuse, 1977:143).

The shift from personal troubles to public issues, with its consequences for issue salience and issue legitimacy, is contingent upon several principal institutional actors: the media, officialdom; and moral crusaders.

In our modern industrial society, the mass media may prove to be critical in providing visibility and arousing consciousness to a potential issue. More importantly, they

also influence whether the problem is assigned as a social issue or is discredited as illegitimate. Spector and Kitsuse (1977) have observed that the way the press and other media are handled is important to the life history of any social issue. Claims-maker can use the media as one strategy to achieve recognition of the imputed condition.

Such elementary devices as issuing press releases or informing the media in advance of a planned event may give a claim wider coverage. Certainly knowledge and expertise in attracting and holding the attention of the mass media are important resources or skills (Spector and Kitsuse, 1977:145).

Officialdom also participates in the shaping of the issue through its many spokesmen: aspiring politicians, elected officials, bureaucrats, the judiciary, etc... (Ross and Staines, 1971). Just as officials may have many reasons for advocating the legitimacy of the issue (arouse voters interest, humanitarian interests, or make a career or name for himself), he may also have reasons for discrediting the validity of the issue. He may feel that the specific target group is too important (or powerful) to be offended. Powerful private interest groups or financial/political factors may exert a significant influence over what officials permit to become public issues. Crenson (1971) illustrates how some issues arise in certain communities but not in others. His analysis locates the factors that determine why a potential issue, such as air pollution, became a public issue in

certain localities but not in others despite similar air pollution levels. Although, Polsby (1972) has pointed out some valid methodological difficulties with Crenson's data, Crenson does provide some systematic evidence which indicates that industries can prevent, or at least delay, certain problems from becoming social issues. This is accomplished by exerting their power and resources upon the political system.

Spector and Kitsuse (1973) make a distinction between interest groups and moral crusaders or "dis-interested" groups. Interest groups are the victims of the imputed condition and have a real and material stake, something to gain or lose in the outcome of how the problem will be handled by the authorities. Moral crusaders are not victims of the imputed condition. Participants who have the support of moral crusaders can point to these exterior concerns as indicative of the crusader's disinterestedness and objectivity in the issue. Moral crusaders utilize their superior status and/or occupation position to generate action to remedy a situation they judge to be unjust. They frequently are scientists, politicians, or individuals from humanitarian groups (i.e., the church). Crusaders have the resources to legitimate and question conflicting diagnosis presented by the status quo. They act as the technical advisors and advocates of the participants who raise the issue but who lack the

legitimacy and resources to gain public and government recognition. Moral crusaders "place the problem at the doorstep of the authorities, with a demand for speedy official action" (Ross and Staines, 1971:29). They take on the role of "watchdogs" who crusade for proper remedial action to rectify the problem and monitor the implementation of the negotiated procedures.

For an issue to achieve public recognition, experts are called in to provide credibility and validity to anecdotal observations and claims. In the early stages of social problems, experts will determine the existence of the condition and establish recommendations that may shape what kinds of action will be later taken by government. It might be argued that experts give or deny legitimacy to the making of a social problem. The participants may find it strategically advantageous to produce organized facts, figures and data to document the reasonableness of their claims. Individuals and/or groups making assertions about a putative condition use the rhetoric of expertise to achieve public recognition and initiate political action. "Experts influence the course of the social problem process by providing material from which the participants may draw documentation for their claims" (Cartwright, 1978:8).

Disagreements between conflicting groups is to be expected. Opponents will question the validity of the

"scientific" evidence presented creating a debate among conflicting interest groups about what is or is not a valid finding, analysis or claim. It will be shown that vested interests influence policy decisions and findings. At this stage, the recognition of the interest group's claim are officially acknowledged. The group is likely to be asked to participate in official proceedings on the problem. For instance, the group may be asked to meet with the governor or mayor, to testify before a Congressional sub-committee hearing on the problem, or to become members of a committee or agency to study the problem. "(T)hey are no longer just a protest group, but the bonafide spokesman for a constituency that may be much broader than their original group" (Spector and Kitsuse, 1973:152). Individuals and/or groups who are similarly affected by the problem but who are non-members of that interest group may now expect them to press their claims as well.

Competing diagnoses of the social problem are announced publicly and a bargaining process beings. Each group will seek to impose their definition of the situation upon the others and to have outcomes beneficial for their own cause. When this type of confrontation occurs, authorities may respond by either simply offering an alternative definition of the same problem and challenge the validity of conflicting diagnoses. Or, they may transform the issue

into a technical debate. Hall and Hewitt (1970) note that such a transformation occurs when authorities claim that they share the goals of their opponents but differ over the means to achieve the goals. Ross and Staines observe:

The transformation strategy has a complex impact on partisans. Some of them will believe the authorities, thereby becoming absorbed in understanding those views, or even quiescently satisfied. Others will devote energy to showing that really, there is a conflict in goals and values (1971:33).

In this chapter, competing definitions of the Love Canal situation and the subjective interpretations given to "facts" to document claims will be examined. An explanation as to why these competing definitions arises is offered.

Competing Interpretations and Definitions of the Love Canal

The subjective paradigm emphasizes the idea that social problems are social products. Social problems are constructed by "pressure groups" (Mauss, 1975). It becomes essential to discuss and trace those individuals and/or groups who, in their own interest, attempt to influence public opinion and the collective definition of reality, and thereby generate social problems. However, claim-making activity is not a sudden affair. Rather, it is a dynamic and on-going interactional activity, where typically an individual and/or groups of individuals initially perceive something as not being "right" and attempt to convince others of their definition of the situation so that they can

mobilize support and strength to awaken institutional responses. However, drawing upon Berger and Luckman's (1967) concepts of the "social construction of reality", there is no such thing as a single "objective" definition of the situation. Often there are various (and sometimes competing) realities, each of which is defined by a different interest group and each interest shaped by the group's concern over the issue. Spector and Kitsuse have argued "groups directly affected by the condition may act in their own interests" (1977:143), thus influencing their reality of the condition.

During the course of the research different and competing interpretations and definitions of the Love Canal situation were advocated. There are certain groups (i.e., the Love Canal Homeowners Association and the Ecumenical Task Force) who claim that the Love Canal is a serious health problem that demands immediate state and federal attention. Other groups claim that while there is a problem at the Love Canal, the seriousness of the situation has been exaggerated (i.e., the New York State Health Department, the City of Niagara Falls, N.Y., and state employed scientists conducting health and environmental surveys at the Love Canal), and still others who claim that there is no social problem at the Love Canal, that the existence of a problem has been manufactured (i.e., some local residents and Hooker Chemicals and Plastics Corporation).

Despite the publicity and the health studies conducted on residents living in the Love Canal area, a significant number of residents do not recognize the legitimacy of the problem. Ray Tyson, a reporter for The Niagara Gazette, states that The Gazette News Service conducted a survey in June of 1980

...where they attempted to reach all of the residents, they actually got about 650 out of the 800 families, and one of the questions they asked was, whether or not you feel these chemicals pose a threat to your health; whether you are worried about it, but you do not think there is a problem; or whether you are absolutely confident there is no problem at all. And just paraphrasing, I believe that close to a third of them felt that the chemicals were a continuing threat to their health...there was a third that were undecided, and then the other third felt pretty definite that there was not a threat (Interview, 14/08/80).

The mayor of Niagara Falls, Michael O'Laughlin notes that because there is no general consensus as to whether or not a health problem exists at the Love Canal, a resolution to the situation has been problematic.

That is the nagging question that has caused this to go on as long as it has. There are those who feel that there is definitely a health problem; there are those who do not perceive it as a threat to their health, and then there are a large number in the area who feel, who are torn between is this so or isn't it so. This has caused the triangle that has made this so difficult to handle. I have no qualms with people seeking permanent relocation if they feel that they really have to move. But there are a number of people out there who do not feel they have to move and I just do not think it is right that one group force their minds or wills on the other group,

that those who want to stay have just as much right to stay even though they are not vocal as those who plan to move (Interview, 25/06/80).

A former resident of the Love Canal area describes how she is not convinced that there is a social problem in the LaSalle area:

Lois Gibbs (President of the Homeowners Association) is a trouble-maker and it would be best if she just dropped dead... she is making a big deal out of nothing. I have four children who were born at Love Canal... I lived there for most of my life and we recently moved out before this mess and thank the Lord for that because if we did not our home would have no market value because nobody would be foolish enough to buy your house now with all the publicity... and my kids are in good health... there is nothing wrong with them. The older folks have been living there for forty years and they are not about to give up their homes just because this lady is screaming that there is a chemical problem up there... for some people it is a life-time earning, their homes. Gibbs is causing a lot of people a big headache (Interview, 28/09/79).

Dr. Paul Moore, chairman of the Ecumenical Task Force (E.T.F.), explains how Hooker Chemicals and Plastics Corporation does not share the Task Force's interpretation of the seriousness of the situation:

I had a call the other day from a gentleman, who is on the executive board at Hooker, who I knew from school, and he said to me that we all respect you at Hooker but we think that you are a little negative about the issues there. He, meaning himself, believes that Love Canal is a nice place to live in and that he would not mind moving there and that if I had the right facts I

would not have the same position or role (Interview, 1/11/79).

Vested interests are themselves part of the phenomenon that must be described and explained. They influence how a condition will be perceived and defined. There are a significant number of residents who have refused to evacuate their premises even after the New York State Health Commissioner declared the area a health hazard and The Niagara Gazette reported the findings of the health problems (The Niagara Gazette, "I'd still live on 99th Street" December 3, 1978; "7 Canal families will remain" December 19, 1978). A board member of the E.T.F. mentions that the main reason why some residents would choose to ignore the problem is because:

...too many of these people their homes is their life-time prime possession and they will not admit to themselves that there is a problem here-- they fear and distrust the motives of New York State Health Department, not to mention the Homeowners Association and ourselves, the Ecumenical Task Force (Interview, 21/11/79).

Conflicting information presented by experts might also account for why some residents are reluctant to recognize the seriousness of the problem. Ray Tyson observes:

It probably causes more confusion for residents than anything else because they are receiving essentially conflicting information from a lot of different sources and sources they would assume that have the expertise to provide them with accurate information and there has been that contradiction right from the beginning. I mean, even now, we are still getting conflicting medical information (Interview, 14/08/80).

He also notes that conflicting information has caused problems for news reporters.

...In our position, especially when we are dealing with health questions, we really have to defer to the opinions of experts... but we've got the same problem and we have learned that you have to use a great deal of caution in reporting these things because a negative study at this point just has incredible psychological impacts on these people. When the Pichiano study came out the EPA felt strongly enough about it at the time that it was one of the pieces of evidence President Carter used to make the emergency declaration. A short time later a panel of EPA appointed experts concluded the study was invalid, there were problems of methodology and now other experts in the field have come forward and said you cannot discount that study at all because the scientist that did it is a very careful researcher, he does quality work and we have looked at some of his stuff and the study may even be valid after all (Interview, 14/08/80).

The City of Niagara Falls, according to the President of the Love Canal Homeowners Association (L.C.H.A.), Lois Gibbs, has refused to officially recognize and "come out and publically admit" that there is a problem at the Love Canal. The mayor fears that admitting the existence of an environmental problem will affect tourism and make the city vulnerable to possible alaw suits. Lois Gibbs explains:

The City of Niagara Falls dislikes everything about the Love Canal, including myself and the people working in this office. This is a tourist town and a lot of what happens here depends on the tourist trade ...as far as our taxes, our population are concerned...and because of Love Canal the tourist trade is going down quite-a-bit.

People are afraid to bring their families here...they are afraid they will get some sort of disease before they leave...and as a result the city holds it against us. The city is also open for millions of dollars in litigation because of negligence, because I don't know what else they are filing under...and because of all this litigation they cannot say anything, they cannot support us because then they are admitting that there is a problem here and it will be used against them in a court of law. Therefore, they are ignoring us and they have not said or done much about anything (Interview, 09/10/79).

Michael O'Laughlin, the Mayor of Niagara Falls, does not establish a causal link between the illnesses experienced by the residents and the chemicals at the Love Canal.

To the point in question: do I think some people are sick? Yes, some people are ill -- emotionally, psychologically or whatever the illness. The cause, I don't know. (Interview, 25/06/80).

In his study of how local residents of Santa Barbara attempted to have the State of California and the federal government put an end to the offshore oil operations, Molotch notes that American democracy is a much more complicated affair than a system in which governmental officials actuate the desires "of the people who elected them once those desires come to be known" (1970:132).

Instead, increasing recognition came to be given to the "all-powerful oil lobby"; to legislators "in the pockets of Oil"; to academicians "bought" by Oil and to regulatory agencies which lobby for those they are supposed to regulate (Molotch, 1970;132).

According to Michael Brown, a former reporter for The Niagara Gazette, the city has been reluctant to help the residents with their cause because "the city may have feared distressing Hooker" (Brown, 1980:13). Brown states that it is not difficult to understand why the City of Niagara Falls would be so hesitant to publicly blame Hooker as the culprit. This is despite Brown's suspicions that "city manager O'Hara and other city authorities are aware of the nature of Hooker's chemicals" (Brown, 1979:35).

...to an economically depressed area, the company provided desperately needed employment-- as many as 3,000 blue-collar jobs in the general vicinity, at certain periods-- and a substantial number of tax dollars. Perhaps more to the point, Hooker was speaking of building a \$17 million headquarters in downtown Niagara Falls. So anxious were city officials to receive the new building that they and the state granted the company highly lucrative tax and loan incentives...(Brown, 1979:36).

Michael Brown further argues:

Hooker is the economic foundation of Niagara Falls...no one can tell me that didn't affect the way the city handled the Love Canal (Interview, 07/02/80).

From Engler's (1961) detailed study of the politics of oil, we learn that big industries combat local resistance with arguments that remedial action hurts taxation and employment. They threaten to take their operations elsewhere, thus depriving the locality of taxes and employment. Michael Brown provides support to this claim:

Everybody in that town is afraid of Hooker...it is just like if you went into a Texan town and bitched about the biggest oil company...they are the lifeblood financially, they are the deadblood environmentally...they are it financially for Western New York. If they fold their tap, the population of Niagara Falls would probably decrease by 10 percent ...and it would have more ramifications than that...they did not want to see Hooker... Hooker suddenly threatened to leave if anybody gave them any moe trouble. And so they applied economic and political threats and the officials for the City of Niagara Falls were the biggest defenders of Hooker... I knew (Interview, 07/02/80).

Karen Schroeder, a former resident of the Love Canal area, also claims that the reason the City of Niagara Falls did not recognize the problem is because Hooker is a powerful interest group in the community.

The city did not want to be made aware of the problems at the Love Canal. The mayor is only concerned about Hooker's reaction and the city's image...recently on a talk show he gave the audience the impression that the Love Canal is nowhere near Niagara Falls. And as for the city manager he thought that everything was all right there and it was just fine to live in the Love Canal. I attended a meeting at City Hall, and we were told that the city had no intention of causing friction with Hooker because they wanted to maintain a good relationship with them...they play a vital role in the community and they are a bigger taxpayer than we are. Even Congressman John LaFalce, who has been very caring and concerned about the residents, has not contributed very much because he does not want to get involved in local politics (Interview, 29/08/80).

Respondents mentioned that because the Love Canal is a precedent setting case both the State of New York and

the federal government have been very careful in how they respond to the problem. Thomas Martin of the E.T.F. states:

There is a great deal of concern about how to handle this situation from both the state's point of view, as well as the fed's. And it is obvious why. There is one key document, the March 1979 Inter-agency Task Force on Hazardous Waste Report, and if you go through this you will find that Love Canal is only one of the many waste situations spread across the country. Now, if the state, let us pick a number, say that the state knew that there were 250 priority chemical dumps in New York State and they said well suppose we spent 35 million on each of these, what would that do to the state's financial structure, would it blow it apart? I think it would and they are very concerned about that. So, they are picking their way along very carefully because they are sitting on top of this document, which is available to the public, and they realize that whatever they do for Love Canal, they will have to duplicate that for the other Love Canals (Interview, 17/10/79).

Donna Ogg, the executive director of the E.T.F., comments that the federal government shares the same concern.

The reason Congress is heaitant to file for an official emergency disaster form is connected with the fact that we have approximately 32,000 toxic waste disposal sites in our country, 800 of which may be potential Love Canals or worse than Love Canal. Therefore, I think they are very worried about the precedent that would be established if they would go about themselves requesting a disaster designation form for these sites (Interview, 1/11/79).

There is some evidence (Grand Jury Report, 1979) that indicates that the federal government was trying to conceal the existence of the problem because of the negative economic

and political disincentive associated with recognizing hazard waste sites as a health and environmental problem. The Grand Jury Report concluded that policy makers at the highest level of the Environmental Protection Agency instructed their personnel not to seek out sites that may pose serious hazards to human beings or the environment. A ranking federal official testified that the EPA ordered its employees not to look for hazardous waste sites.

We were told there are many disincentives to look for these sites where people are not being protected. And therefore, we won't look for these sites...A disincentive in my mind is the context that it might be politically embarrassing to some officials who have-- who are aware of the contamination and feel if we find people being poisoned they might be embarrassed. It might be a disincentive because there would be pressure put on state, local or federal budgets to pay for the clean-up, as well as pressures put on the companies who are causing the harm to the public, who have to pay. And that's a disincentive...an economic discentive (The Special Grand Jury Report, 1979:41-42).

Another EPA official testified:

We have found in our assessment activities that in many instances when we discover a site where people are being poisoned, that information and decisions involved with that poisoning are on file or have been made by the Environmental Protection Agency regional offices and state and local officials; and that the people have not been told by any of these officials that they are being poisoned. In some cases, those officials have been involved in decisions that allowed for them to be poisoned (1979:42).

Being a precedent setting case has meant jurisdictional disputes between government authorities. Lois Gibbs, president of the L.C.H.A., explains:

Probably the most difficult obstacle to relieving the problems at Love Canal has been "being the first". Neither the state nor the federal agencies who could help were responsible for the situation. And neither wanted to take financial responsibility for cleaning it up. Arguing between state and federal authorities over who should pay for what expenses has continued since the first discovery of contamination. In fact, the remedial work for the middle section of the canal which was supposed to start in mid-March of 1979 has just been postponed until mid-summer. The reasons given are that the construction contract is going from emergency status to an open-bidding process and that the EPA ...refuses to review the construction plans until they know who is paying for what proportions (Interview, 1/11/79).

Industry shares the government's concern about the economic and political precedence established at the Love Canal. Hooker has counteracted the negative image that has been given to them in local newspapers by printing full-page advertisements in The Niagara Gazette and The Buffalo Courier Express in an attempt to improve their image. These advertisements can be interpreted as an attempt by Hooker to impose their definition of the situation on the public and to create a different reality of the situation. In a full-page advertisement that appeared in The Buffalo Courier Express, they quoted a worker in big black letters, Bill Crockett, who has been an employee at Hooker

Chemicals Plant for a number of years, as saying "A LOT OF WHAT'S BEING SAID ABOUT HOOKER...IT MAKES ME ANGRY." At the bottom of the page a two-inch letterhead statement reads, "HOOKER CHEMICALS...LISTEN TO THE PEOPLE WHO KNOW." The assumption is that people at the top have the right to define the way things are since they have access to a more complete picture of what is going on than anyone else. Becker has noted that "credibility and the right to be heard are differentially distributed through the ranks of the system" (1970:18). The notion of a hierarchy of credibility means the popular tendency to accept the perceptions and moral positions of those at the top of the social structure. We give credence to superordinates because everyone knows or assumes that responsible experts know more about things than laymen.

Hooker Chemicals and Plastics Corporation has questioned the reliability of The Gazette's coverage of the issue. Ray Tyson of The Niagara Gazette states:

They sent a letter to the editor claiming: "Hooker Chemicals has been a vital part of the Niagara Falls community since the turn of the century"...jumping a little bit..."the company's record of achievement has recently been marked by false perceptions of the Love Canal"...moving on down ... "your reporters apparently want to attribute corporate villainy to the management of Hooker. We assure you there are no villains here. In this current series of articles, The Gazette ignores Hooker's record of accomplishment in community service and attempts to trial the company in the press. These articles are rehash of old

information and charges. They are a disservice to the community and its people"...moving on down..."instead of looking back, isn't it time for The Gazette to realize that we should all be looking forward to the future and revitalization of Niagara Falls? Hooker is ready to do its part, is The Gazette? ...and it is signed by Bruce Davis, President of Hooker Chemicals and Plastics Corporation (Interview, 14/08/80).

The actions of Hooker Chemicals and Plastics Corporation and the context in which such actions took place can be examined in terms of their function in diffusing local opposition, disorientating dissenters, and otherwise limiting the scope of issues which are potentially part of public controversies.

The 'Social' Construction of Facts

There may not only be disagreements over the definition of the situation but also disagreements over "facts." "Facts" are constructed to support a position. Scientists and/or experts are called upon to document facts to substantiate claims. The assumption is that science can investigate the reality components of the social problem in terms of a systematic, objective and verifiable structure. Numerous scholars have questioned the neutrality of science in evaluating social problems (Manis, 1976). Scientists disagree among themselves over the interpretations of the results; the results are frequently ambiguous and open to alternative ways of explaining the same data; and political

considerations influence the decisions of political actors to accept or reject the findings. Harberer (1969) notes that science is inherently political. Social scientists are increasingly becoming aware that the roles of scientists in industry and government are guided by the specific purposes of their employers (Manis, 1976). Consumers (corporations, governmental agencies, consultants) employing scientists may set standards in which the economic and political acceptability of research can become a more important factor than its contribution to basic knowledge as evaluated by scientific colleagues (Nelkin, 1977). Some social scientists perceive the emerging of a "science establishment" linked with and serving government and big industries (Greensberg, 1967; Chapter 1). Mills (1956) observed that manipulation and deception of "facts" is a necessary part of the social control of mass society. Knowledge is power. "Those who control knowledge...control society" (Manis, 1976:41). Under these circumstances, political and economic power control the search for knowledge. The interest of the employer rather than pure objective knowledge is the expected outcome. Scientists may be recruited because they will support a certain position. In a letter that Lois Gibbs, president of the L.C.H.A., sent to Dr. David Axelrod, New York State Health Commissioner, dated October

25, 1979, Gibbs questions whether certain physicians were selected because their conclusions would result in favor of the Health Department's stance. Lois Gibbs writes:

Several of the physicians to whom I spoke, examined residents who were ill at that time and were willing to draw a possible relationship to Love Canal but were never contacted by the Health Department. After speaking with you and Dr. Vienna in our meeting in Albany, it was stated that the Health Department was aware of which physicians were or were not sympathetic to the Love Canal situation. As a result of this statement, I have my doubts whether those four physicians were chosen because of the conclusions that might result in favor of the Health Department's position.

Dr. Beverly Paigen, a cancer research scientist working for the L.C.H.A., was surprised to learn that the "politics of social problems" would extend to scientists.

...I thought that if I could just meet with the scientists, no commissioner, deputy commissioners...just the scientists who are working with the data and they would see...you know it is a fascinating thing, and I thought that their scientific interest would be captured and at that point I never dreamed that it was all a political thing and I just thought they had made an error in their assessment...which would be an error that anybody would have made because of how they were looking, they were assuming that the chemicals were migrating out evenly from the canal so they looked at disease incidences on 99th Street vs. 100 St vs. 101 St. vs. 102nd...it is a logical scientific thing to do...what Lois Gibbs had shown and what I had confirmed was that the streambeds were cutting across so that the disease incidences was the same on every street because the chemicals weren't migrating out evenly, they were migrating along

certain paths...so I thought once I showed that to them they would follow it up and do it in a more scientific valid way than I could do because they had more resources. So I thought that their scientific curiosity would be awakened and they would go ahead with it and I walked out of that meeting feeling that I had accomplished that purpose. But the next day in the paper there were strong statements from everyone at the meeting that I was wrong, that they had tested my hypothesis and that I was in error, that their facts did not bear them out and that upset me a little because they did not have any facts at that time. So I called them all back immediately and said how could you make those statements to the press and they said "what we said was that our information does not confirm you but of course we have not tested it yet" and I said when you say to the press that our information does not confirm Dr. Paigen,..that sounds as if you tested it and found that I was wrong...and they said "we did not say that, we just said that we didn't confirm it" and I told them that what was said to the press was a lie, it was wrong and that they should have said that we have not tested it yet (Interview, 7/12/79).

Some scholars have observed that because science is a social control service utilized by the elites, different interpretations of issues is the expected outcome (Nelkin, 1977). Science does not merely serve the desires of its employer; it defines the very wants it serves (Hughes, 1971). The scientist is not operating his activity within a political vacuum. He is already working on the basis of certain assumptions and expectations. Some works typical of this concern have dealt with the general difficulties of conducting

science in social problem situations (Ezrahi, 1971; King and Melanson, 1972), with the question of nuclear power reactors (Ebbin and Kasper, 1974; Nelkin, 1971, 1974a), and with airport expansion (Nelkin, 1974b). Consequently, competent scientists may approach the same problem differently and may arrive at conflicting conclusions from the same set of data. For example, the New York State Health Department and Dr. Beverly Paigen have presented two differing sets of conclusions derived from selected data explaining the same condition-- the health hazard that residents in the Love Canal are experiencing. In a letter written by Congressman John LaFalce to the U.S. Environmental Protection Agency, dated February 22, 1979, Mr. LaFalce writes:

It has been brought to my attention that Dr. Beverly Paigen, a distinguished medical researcher at Roswell Park Memorial Hospital, has drawn conclusions different from the New York State Department of Health regarding the medical condition of residents living around the Love Canal in Niagara Falls, New York.

...therefore, I am urging you, as heads of the federal agencies responsible for safeguarding the health and environment of our citizens, to have your appointed representatives meet with Dr. David Axelrod, Commissioner of Health for New York State, and Dr. Beverly Paigen so that both sets of data can be reviewed by the federal government.

In this case a mediating group was required to establish and/or resolve the differences in the reality of the medical

condition at the Love Canal. The Health, Education, and Welfare (HEW) panel was unable to resolve the discrepancies between the two sets of data.

Another example of the conflict between interest groups over the "facts" is brought forth in a debate Hooker Chemicals had with the (DEC) in 1976 over the discharge of mirex into Lake Ontario. When Bruce Davis, a spokesman for Hooker, was asked about the company's disposal of mirex in Lake Ontario, which has made the fish there too poisonous to eat, he stated that there had been a misunderstanding on this issue.

The Department of Environmental Conservation has acknowledged that their readings of mirex levels were wrong. There was no contamination (Gallagher, 1979:71)

DEC Commissioner Peter Berle replies to the contrary:

That is absolutely not true...Hooker hired its own consultant to show that the levels were not what we had said. There were many meetings, and the conclusions of our technical people and some of their technical people was that we were accurate and the levels were unacceptable. Hooker then refused to go on with the meetings (Gallagher, 1979:71).

The outcome of the results may be less dependent upon scientific decision than on political decisions. For instance, a direct cause-effect relationship between the health problems experienced by the residents at the Love Canal and the chemical would result in residents filing successful litigation suits against Hooker Chemicals and Plastics

Corporation, government agencies, and other responsible parties. Scientists and medical doctors have been very hesitant to establish such a causal relationship. Mayor O'Laughlin claims that a major reason why government has failed to resolve the Love Canal problem is because scientists are struggling with determining if there is a cause-effect relationship between the illnesses and the chemicals.

...there has been two factors that have really been against a quick resolution. One is the lack of determination of the numbers who are sick, and the other one being a lack of determination by medical people that there is a causal relationship between living there and the canal. These two things seem to mitigate against quick action (Interview, 26/06/80).

Government officials claim that their decisions are based on data provided by experts. Without the support of scientific data, no political action can be undertaken. The politician's problem is to separate facts from fiction. If it can be shown that peoples' lives are actually at stake, then action is likely to follow. However, experts have to be certain kinds of people. If they do not support the "party line", politicians will quickly discredit any scientists that claim government is acting irresponsibly or inappropriately.

Two months after state authorities confirmed that the chemical waste in the Love Canal area had contaminated the residential area, Jon Kenny, a seven-year-old boy who

lived near the area died. Medical experts differ as to whether or not the boy died from chemical poisoning. Dr. Sherman, an advisor to the EPA, after analyzing Jon's medical records, including his autopsy report and tissue sample findings claims:

I believe that there is a chain of circumstances linking the chemicals that have been identified in the Love Canal area with illnesses not only in Jon, but of other residents of the area. I mean, after all, I believe over 90 chemicals have been identified in significant amounts. We know the toxicity of most of them. There are animal studies adequately done that prove the toxicity. In many of the chemicals, there is human data available, mostly from workers. I don't know what more you need (Buffalo Broadcasting Inc., 1980)

Dr. Boliyah, a kidney specialist at the Children's Hospital in Buffalo, questions Dr. Sherman's opinion.

I don't see any evidence of any chemicals found in Jon, so far, you know, by...determined by a laboratory. So, it would be very difficult for me to think that this is due to the chemicals (Buffalo Broadcasting Inc., 1980).

Pointing to Jon's physical abnormalities, Dr. Sherman claims:

Jon had a multiple number of significant abnormalities, which I believe point toward chemical toxicity. Now, these included shrinking of his thymus gland. I believe, adrenal insufficiency as a result of probable exposure to DDE. He had changes in his visual cortex, which are very unusual. He had extremely high blood count with abnormal forms in his blood, which I believe point to bone marrow damage, as well. And he died of--

his immediate cause of death was a blood clot in his pulmonary tree. If he had only one of them, I would be hesitant to make an association between that and his death and chemical poisoning. But taking all of them into consideration, and particularly the fact that his-- the findings in his kidneys were minimal, points, to me, to the fact that I think he died as a result of exposure to chemicals (Buffalo Broadcasting Inc., 1980).

Several respondents question whether scientists and/or experts employed by the State of New York can conduct objective studies in the present politicized situation. Lois Gibbs comments:

The State is conducting a scientific study, the results of which may end up costing the State of New York many millions of dollars if the result indicate further contamination. This is especially alarming since continued announcements by state officials have been made that they do not intend to relocate any more families because of the lack of a cause and effect linkage between contamination from Love Canal and health effects found in the area. The political and bureaucratic pressures to be "absolutely certain" of the results place great constraints on the objectivity of the scientists working on these studies. The very nature of the uncertainties of determining or establishing the significance of low-level contamination to many chemicals preclude obvious conclusions of cause and effect. Therefore, the Health Department, in an obvious conflict of interest, must make subjective recommendations to the politicians who will decide what must be done. I want to stress that the objectivity necessary for good science will be near impossible in these circumstances (Testimony presented

to the House Sub-Committee on Oversight and Investigations March, 1979).

When competing diagnosis and solutions about the same problem are publicly announced, a debate about the appropriateness of the analysis and the reliability of those making the analysis occurs. Re-examining the results made by the New York State Health Department, Dr. Beverly Paigen states that the state made several errors in its examination of the data.

First they failed to notice an apparent miscarriage rate lower than the expected rate calculated by the state in these women before they moved to the canal. Any scientist would have said that there was definitely a change in the pattern of miscarriage rate before and after living on the canal. At this point, a scientist should have questioned whether the calculations for expected rate of miscarriages were correct. The second error the state made was that they did not calculate the expected rate of miscarriages correctly. They used data from a Montreal population. The fact that the Montreal population is not appropriate for comparison should have been immediately apparent to a biostatistician since the miscarriage rate in Montreal was 14.7% and the miscarriage rate for Love Canal residents prior to living on the Canal was 8.5%, a statistically significant difference (Memorandum, Dr. Beverly Paigen, 19/12/78).

Hence, if the state had been carefully looking for evidence of increased miscarriage rates, they would have found it. Statistical methods can be chosen over other methods because they validate a certain claim. Questioning the state's statistical criteria for decision-making policy, Dr. Paigen

argues:

The State appears to have adopted the .05 probability criterion designed to guard against a Type I error - saying there is a health hazard when one is not present. This is a value decision that should be open to discussion since it would easily be argued that the State of Health Department should be more concerned with avoiding a Type II error- ignoring a health hazard that is really present (letter sent from Dr. Paigen to Dr. David Hall, Director of the National Institute of Environmental Health Sciences 13/03/79).

Interpretations of results involves a subjective process. Lois Gibbs highlights this process.

The way the State is interpreting their information...They did a lot of blood and liver tests in Love Canal to see if these were abnormal...now the population of Love Canal on the whole including the larger area, 15% of the Love Canal population had abnormal liver functioning tests. What they did is that they took these 15% and they adjusted them for age and sex, which brought it down to 3% being abnormal, instead of 15%. They they compared their 3% being abnormal to a Rochester Hospital which was 2.7% abnormal and they said there is no problem at Love Canal...3% and 2.7%, there is no real significant difference...except for one thing, they did not adjust the Rochester Hospital values and so they have compared adjusted ones to unadjusted ones...which makes the interpretation totally wrong... and they have done this with many of their studies...and they are easily picked apart by lay people like myself (Interview, 9/10/79).

In response to Lois Gibbs and Dr. Paigen's assertions, Dr. David Axelrod, New York State Health Commissioner argues:

I think that you have to understand that Dr. Paigen is not an epidemiologist, she is not trained in the methodologies... of the evaluation of public health information. Dr. Paigen is a scientist, who is sincere in her efforts...but her information was gathered in a subject of fashion which does not follow the kind of rigor which would be demanded by those who do epidemiological techniques...an I think that one would anticipate that one would find significant differences between the information gathered by those who are skilled, who are trained in the specific area and those who lack that kind of specific training.

Government will illustrate that members of lower groups do not have the proper resources to document claims. They will accuse these groups of having incomplete information and their view of reality will be regarded as partial and distorted in consequence. The discrediting statements of opposing partisans are often made on the grounds that the individual lacks proper training. In an attempt to discredit the credibility of Frank Rovers, a consultant to the New York State Department of Environmental Conservation, Lois Gibbs remarks:

I do not believe Frank Rovers is qualified to make any statements about chemical migration or contamination in the Love Canal area. Correct me if I am wrong but Frank Rovers is an engineer, not a soils expert or toxicologist. Unqualified people making statements such as this adds to the confusion and misunderstandings involved at the Love Canal between the state agencies and residents (letter sent from Lois Gibbs to Commissioner Hennessey 21/08/79).

Conclusion

Social problems are the products of interest groups making claims about some putative condition. The emergence of a social problem is dependent upon claim-makers successfully imposing their interpretation of the situation upon others. However, because social problems do not emerge in a socio-political vacuum, there may be not only conflicting definitions over the reality of the situation, but "facts" are constructed to validate or invalidate a particular reality presented by rival interest groups.

Each group seeks the services of experts to substantiate a claim. However, it has been illustrated that experts do not carry out their work without the influence of political and/or economic pressures. Experts may be selected because they will support a certain position or discredited because they do not support a particular claim. Consequently, vested interests play a significant role in the recognition of a social problem and in the resources utilized to support a claim.

Elaborating on Hughes' (1971) distinction between a routine and emergency issue status, it becomes clear that whereas certain people have reasons to press for the legitimacy of the problem, others may have reasons to

suppress or delay the legitimacy of the problem.² The Love Canal Homeowners Association believe that they are faced with a most pressing situation that demands immediate remedial action. However, both the State of New York and the federal health and environmental agencies are not prepared to recognize the seriousness of the Love Canal problem since they are aware that similar waste sights are located across the state or country. Whereas the L.C.H.A. wishes to deal with the here and now situation, others must calculate their actions in anticipation of the future.

The focus of Chapter 6 will center around an account of the social and political processes that lead to the discovery of the Love Canal problem.

² I am indebted to Dr. William Shaffir of McMaster University for bringing this point to my attention.

CHAPTER 6

CLAIM-MAKING ACTIVITIES AT THE LOVE CANAL

In the discussion of their four-stage model of the natural history of social problems, Spector and Kitsuse (1977) state that social problems activities commence with collective attempts to remedy a condition that some groups perceive and judge as offensive and undesirable. The theoretical emphasis is to focus on particular definitional claims-making activities as the primary subject matter.

Rather than investigate how institutional arrangements produce certain social conditions, we examine how individuals and groups become engaged in collective activities that recognize putative conditions as problems, and attempt to establish institutional arrangements (Spector and Kitsuse, 1977:72).

However, not all claims and/or complaints acquire social legitimacy.

...a group's problem-defining activities may elicit no response-- the group may lose its constituency, be ignored by the mass media, be torn by internal dissension, fail to mobilize economic resources to sustain its activity, or give up hope (Spector and Kitsuse, 1977: 143).

The making of claims and/or complaints is an integral part of social and political life. Spector and

Kitsuse (1977) observe that a vast majority of everyday claims never do achieve public recognition. There is a selective process in which many claims may simply be ignored; others may dissolve when the claim is satisfied, still others may be bargained away, cooled out, bought off, or avoided for the time being. Some claims, however, will not be disposed of so easily. Success or failure of claims-making activities depends on what Spector and Kitsuse have categorized as "power"-- "conceived as the ability of a group to realize demands it makes on other groups, agencies, and institutions" (Spector and Kitsuse, 1977:144). Blumer (1971) notes that the fate of successful claims-making activities depends on career contingencies. Some scholars suggest that the power of the claims-making groups, the way claims are defined and expressed, and the strategies and mechanisms employed to press claims are critical variables in the activities to transform private issues into public issues (Spector and Kitsuse, 1973).

The attempts by residents to identify and establish a causal relationship between illnesses and the chemicals at the Love Canal; the creation of an organized local group (the Love Canal Homeowners Association) to address the claims to public officials; the role played by the media; and the support of moral crusaders all acted as major catalysts to the social construction of the Love Canal issue. In this chapter, each of these factors will be discussed in

terms of their influence in pressing successful social problem activities.

Comparing Notes

Complaints of strong odors and health problems by local residents in the Love Canal can be traced as far back as the early years of the 1950's. At the public hearings held in May of 1979 by the Interagency Task Force, homeowners condemned local officials for their lack of meaningful responses to complaints. These were submitted years before conditions at the Love Canal were recognized as public issues. Ginsberg (1979) reports that as early as 1958 complaints about chemical seepage from the Love Canal were registered with the City of Niagara Falls. A Love Canal resident noted that in 1953 the city must of been aware of the potentially harmful situation:

...they had to know the severity of the problem when they began building the school and had to stop and vote on moving the school over 60 feet because of noxious fumes and chemicals surfacing and jeopardizing the health of the construction workers...complaints on this matter were continually brought to the attention of our city fathers about children burning their hands and feet (Interview, 1/11/79).

Some government spokespersons question whether such complaints were ever filed by residents. Michael Cuddy, coordinator of the Love Canal Task Force, testified that problems at the Love Canal were first brought to the attention

of local officials in the mid-1970's. William Ginsberg, hearing officer at the public hearings of the Interagency Task Force on Hazardous Wastes, upon evaluating the evidence concludes "it appears that Mr. Cuddy's information on this issue may be incomplete" (1979:68).

Nancy Dubner, the executive director of New York State Department of Transportation, claims that the Department of Transportation was aware of chemicals being buried at the Love Canal in the 1960's.

We had some awareness many years ago...when the department built the LaSalle Expressway, which is at the very very end of the canal... and the dump extended a little bit into the Expressway. I think it was in the 1960's, sometime around there, the department started digging and they came across chemicals and what they did was carted them away and buried them in another site...which has been studied since then...and those records still exist in our Buffalo Region Office (Interview, 08/05/80).

Roger Cook, a board member of the Ecumenical Task Force, mentions that between 1957 and 1958 three children were burnt by exposed residues on the canal's surface, but the problem received little public attention and the incident was soon forgotten.

Back in 1957, a kid got burnt while playing on the canal...and it was brought to Hooker's attention at that time and as I recall, according to my sources, Hooker refused to do anything about it...to really acknowledge it, as well as the city, and the complaints soon died (Interview 21/11/79).

In a recent United States District Court hearing, Hooker Chemicals and Plastics Corporation admitted knowing as early as 1958 that children had been injured while playing at the Love Canal. The company had been advised by city representatives of these injuries (The Niagara Gazette, May 21, 1980). Although, Hooker Chemicals Corporation declares that they were not aware of the health implications associated with the buried chemicals at the Love Canal, in 1975 Hooker conducted an internal study, Operation Bootstrap, aimed at outlining the plant's condition.

Hooker was fully aware of its responsibility. This was shown most vividly in a document, "Operation Bootstrap," that I had obtained from a former Hooker engineer. The document detailed what the authors described as "deplorable" working conditions and significant leaks into the city's general atmosphere of mercury, phosphorus-based gases, and pesticides (Brown, 1980:78).

The natural passage of time often assumes a central place in people's effort to make sense of problematic situations. Social problems develop with the passage of time, as conditions are defined and redefined according to a line of analysis. At first, general statements are voiced about the problematic situation. In the aim of achieving a greater constituency of support, a clearer line of generalizations will be outlined. Participants will cite examples and experiences that "confirm" the applicability of the constructed analysis. Support will be grounded in

more basic values and beliefs and the application of the problem will be transformed from a private concern to a general concern. It will be demonstrated that the problem also affects others.

Spector and Kitsuse suggest that individuals and/or groups "who have no idea who created, who is responsible, or who caused the imputed condition" and who do not link their complaints to a broader ideology or theory, the less likely will be the recognition or response allocated to their claim (1977:144). This suggests that the ways the experiences of dissatisfaction are organized and applied affects the kinds of claims an individual and/or group constructs, as well as how the claims will be responded to. In addition, the fate of social problems may depend heavily on channeling the complaints to proper authorities. If the group protests to the wrong party, they may get no result (Spector and Kitsuse, 1977). They may be ignored, receive bad advice or directions as to where they properly should address their grievances, or they may inadvertently reveal their claims to an opponent, and thus undermine the success of the claims being publicly acknowledged. In such cases, long chains of referrals may occur with no organization willing to accept jurisdiction over the problem. The complaint is thus prevented from developing into a public issue.

Initially, residents perceived the problem at the Love Canal as a mere nuisance condition since living with chemical odors was not unusual to the community. Michael Brown observes:

In 1959, the Voorhees noticed a stange black sludge bleeding through the basement walls. That it involved chemicals, industrial chemicals, was not particularly significant to them. All their life, all of everyone's life in this city, malodorous fumes had been a normal ingredient of the surrounding air (Brown, 1980:6).

The complaints raised were undefined, lacked community support and interest. The claims were routinized in an understanding the community had developed; chemical odors were an everyday experience at the Love Canal. Karen Schroeder, a former resident of the Love Canal, recalls that in the summertime there were always chemical odors, but the odors from the chemical plants pervaded the air of the whole county and people were accustomed to them. Dr. Paul Moore, chairman of the E.T.F., notes that the neighbourhood is very deceptive:

...there are trees, shrubs, even today, it is very ambiguous when you up there... so that people living in the area are disillusioned or have the illusion that there is nothing wrong...and we are all apt to admit that there is something wrong with our environment, to a degree.

Social problems are not suddenly recognized. To argue that people react to sudden physical conditions is to negate the important role social and political factors play in shaping the discovery of social problems. Lois Gibbs,

president of the L.C.H.A., highlights the importance of attaching social meaning to objective conditions.

Many of the residents were aware of the chemicals in the 1950's but they didn't realize the severity or consequences of the chemicals. They knew they stunk, they knew they were unpleasant to smell, unpleasant to look at but they didn't know what they would do to their bodies and health. In 1954, the first petition was presented to city hall by a resident who lives on the Love Canal, they came out and drafted a load of clay on her property to bring her property upwards so that the chemicals would not go down into her property but would flow the other way. The whole problem was that residents were not aware of what this horrible unpleasant thing in their homes, gardens in the air was... what is going to do to them. (Interview, 09/10/79).

The objective condition had been interpreted as an everyday aspect of life. Lois Gibbs provides support to this observation.

We live in an industrial city and in an industrial city we smell and see those odors all the time and you never stop to think that maybe there is something unusual about those odors...some residents still do not recognize the problems at the Love Canal...regardless of the fact that they smell it, see it, and read about it (Interview, 09/10/79).

Through the 1950's to the mid-1970's, few residents were concerned about the Love Canal situation. The community, generally, did not interpret it as a threatening or offensive situation. Congressman John LaFalce illustrates the important function public opinion may play in awakening

awareness to social problems,

Oh, you said certain individuals were aware...that may be true but there are degrees of awareness and if one individual knows, or two or three out of 1.5 million people, say in Western New York, there is not a sufficient level of awareness for anybody to do anything about the claim. The neighborhood residents, by and large, were not aware. To say that two or three individuals were aware is one thing, to say that there were one or two small articles in the newspapers, never again to be repeated...that is not to say that there was awareness and it is grossly misleading to suggest that there was awareness because one or two individuals may have made the statement, "oh, yes we were aware of this many years ago" (Interview, 09/10/79).

Residents did not realize the health implications of the chemicals buried at the Love Canal. The issues that residents did raise were not health problems but a concern for property value. Michael Brown, a news reporter who originally worked on the Love Canal story, remarks that he was not initially aware of the health implications involved at the Love Canal.

...but there was only, really, there were only two or three families who were really concerned...the most concerned family was the Schroeder family...and their concern was that their property was becoming worthless. Nobody at this point had any suspicion that there was any health problems and through the 1977 winter, neither did I...although I was concerned about the situation because it really stunk out there (Interview, 07/02/80)..

In response to the individual complaints received in the 1950's through the early 1970's, Hooker Chemicals

Corporation, city, and county officials assured that there was no problems at the Love Canal. Karen Schroeder testifies that:

Through the years the advice of city and county officials remained consistent. To occasional complaints by residents about odors or about chemical burns received by children and animals, officials said that there was "nothing to worry about." Once when one neighbour got worried, he called the city, but they said the stuff Hooker was dumping was good for the soil and we shouldn't worry about it. If there was an unusually high incidence of health problems in the area-- miscarriages, birth defects, central-nervous-system disorders-- there was no one to add them up. Families dealt privately with what they assumed were private tragedies (Interview, 29/08/80).

Complaints were channeled to the wrong authorities. Recalling what action they should have taken, Karen Schroeder states:

I have learned one thing from all of this, whenever you have a problem in your city... never go to city officials because they will tell you that they do not have the resources or jurisdiction to handle the problem...you have to go to the highest level if you want something to be done. For years, we complained to the city...you would think that they would want to solve the problem, I mean you find a problem and you solve it, right, but that is not the case. We later discovered that the city had many reasons not to be concerned with our problems... and therefore our complaints were put down and nothing was ever achieved (Interview, 29/08/80).

City officials downplayed the seriousness of the problem;

"public officials often characterized the residents

as hypochondriacs" (Brown, 1979:37). The city manager, Donald O'Hara, told complaining residents that the Love Canal, however displeasing to the eyes and nasal passages, was not a crisis but mainly a matter of aesthetics. O'Hara reminded residents that Dr. Francis Clifford, the county health commissioner, supported his opinion (Brown, 1980).

There is a tendency for people to accept the perceptions and statements of those in power. By accepting the hierarchy of credibility, we express respect for the established social order (Becker, 1970). The city was releasing public statements to residents that there was nothing unusual about the Love Canal; "our scientific consultants are not worried about it, and neither should you." Presented with conflicting information, residents decided to give credence to their elected city officials rather than to lay people. Elena Thornton, a member of the Love Canal Renters' Association, explains that it is a very difficult process for lay people to question statements made by experts and/or government officials.

We would telephone people, knock on their doors and tell them that there is a health problem out there...and the state would send out notices saying that there is no immediate danger, that you are not in danger and then we would have to argue with them. The people would turn around and say to our group, "Well, what do you know? You're no experts, they are. They say it is safe out here for us...so what are you trying to do, just start trouble?" So, this is the type of

attitude we were confronted with, we had no professionals at that time to back us up with our statements...and trying to convince people that there really was a problem was difficult because city officials would contradict our claim that we were in danger...that there was a health problem in our neighbourhood (Interview, 27/09/80).

This suggests that complaints by citizens are perhaps necessary but not sufficient conditions for issues to become recognized as a social problem. Individual complaints can be ignored, suppressed, or mislaid. The power differential between those representing government establishments and protest groups is such that the latter's activities do not necessarily make any appreciable difference. The few residents who were attempting to raise the issue at that time did not have the power, resources and knowledge of how to press their claims so that public recognition could have been achieved and appropriate institutional responses awakened. The complaints voiced were not clearly defined or expressed, were not substantiated by experts or recognized by the media as being news worthy, and were channeled to authorities who had a vested interest to suppress the legitimacy of the claims. More importantly, the community were not supportive of such grievances. The individuals who were complaining about the odors were ostracized by their neighbours because the community feared that such claims were ruining the reputation of the neighbourhood and lowering

property values.

However, a significant event occurred in the spring of 1978. Residents began comparing notes about the health problems the community was experiencing. An important feature in the social history of a social problem is determining a cause-effect relationship, or what we might call the "Eureka" phenomenon. That is, something like, "ah, I see the connection." In the course of attempting to give some meaning to the situation, residents made a connection between the health problems in the Love Canal area and the chemicals. This link brought forth a growing commitment from various people and enabled the interested persons to organize their inquiry. By defining, giving a name to and developing a theory to account for the emergence of a given problem, it makes it possible for others to experience as unsatisfactory some aspect of their environment that previously they had been unaware of and for agencies to deal with the problem within restricted and budgeted jurisdictions. Health problems, especially mental retardation and birth defects, once perceived as acts of defective genes, were now attributed to the chemicals.

Karen Schroeder explains:

We always had the smell but as for the health problems, we never put two and two together until we sat down and discussed the illnesses people in the area were experiencing. We were aware of the fact that within any community,

people will have cancer or other illnesses but when we started to discuss the health problems in our neighbourhood, we found that we had a lot of cancer among the young people, and it seemed unusual, that there were so many people complaining about their health. At first we were concerned about the smell of the chemicals and the damage it was causing to our property. It was not until 1977 that we began to suspect that there was a connection between the chemicals and the health problems we were experiencing (Interview, 29/08/80).

Once a causal line of analysis was constructed, people in the community started discussing their health problems. Elena Thornton documents how community members began to attribute a relationship between the chemicals and their illnesses.

My family lived out there for twenty years. I had one confirmed miscarriage and one that never was confirmed...I had a son that died of leukemia and all my children always had asthma or bad skin conditions. You know, before the doctors would simply say "well, you know, these things happen." Like leukemia, there was nobody in our family that ever had leukemia, and he said that things like that do happen. And when I spoke to other people, and we talked about our health problems and the chemicals buried out there...well now, I can see why a lot of things have happened to my family; like some of them have heart problems, my father died of a heart attack...high blood pressure, I am a diabetic...my sisters have had several nervous breakdowns...my girls are anemic. You know health problems like that. That is just my family... and in talking to other families, you know, we tried to do a little health survey, and the rest of the families

are saying the same thing...describing the same types of health problems (Interview, 27/09/80).

With the support of Michael Brown, a local news reporter, Karen Schroeder conducted an informal health study aimed in documenting the health problems.

Well, I went up and down the block and started tracing the health problems and I asked neighbours to list everybody they knew who had died of cancer in the last ten years and then after we had tabulated our results a few of us met with Michael Brown in a house on 99th Street in May of 1978. The results seemed to indicate that there was a tremendously high incidence of female cancer, hair loss, and emphyzema. Residents complained that dogs were sick...there was a high incident of tumors in dogs...and all of these just didn't seem normal. Michael Brown was very interested...he thought that this was a valid story...and he conducted his own investigation.

At this point, residents began to complain to the City of Niagara Falls about a specific issue--health problems. Their claims were also filed with state and federal environmental agencies. Karen Schroeder recalls:

I just kept on getting on the phone everyday and calling the city, the Department of Environmental Conservation, and the Environmental Protection Agency. I told them what we found and that we wanted to know what was in the ground, what they were going to do about it, and what these chemicals could be doing to our health (Interview, 29/09/80).

At Michael Brown's request, The Niagara Gazette performed a private analysis on the chemicals at the Love Canal. They found heavy concentrations of orthochloroluene, parachlorbenzotriflourite and hexachlorocyclopentadiene in an air sample taken from the basement of a resident on 97th Street. The findings of this analysis, along with Michael Brown's investigation of the health problems in the area, gave news value to the Love Canal issue. During the period of 1977 to 1978, Brown wrote more than 100 stories for The Niagara Gazette on the Love Canal (Gallagher, 1979). In the articles, he emphasized the health problems residents of the Love Canal area were reporting.

...I wrote that people were sick out there and it started making headlines, big headlines...not just regular daily columns, but big splash headlines, from that point on. Well, people started to get upset, they grew more and more aware of what was there...and organized themselves into an association (Interview, 07/02/80).

Community awareness had been aroused and the State of New York was pressured to conduct its own health survey (The Niagara Gazette, May 21, 1978-- "State to Study Love Canal Health Ills"). Brown reports:

The State of New York saw that the situation was starting to develop... it came in and announced that the health department would conduct a health survey in response to the tests that showed the presence of benzene and my articles on the health problems (Interview, 07/02/80).

The Niagara Gazette had played an important role in giving the issue visibility and in awakening community awareness of the situation.

With the state's public announcement that a health survey would be conducted, the issue was granted legitimacy. Previous anecdotal assertions about a possible relationship between the illnesses and the chemicals were now being confirmed by a reliable and credible source (The Niagara Gazette, August 6, 1978-- "Tests show toxics in south end area of canal"). These results enabled the issue to gain public recognition. Michael Brown notes that the results of the studies conducted by the State of New York had a tremendous impact on the community of Niagara Falls.

On July 14th I was informed that the State Health Department...they had sent out some surveys around to the people living in the south end of 99th and 97th Street...and I was informed that there was a high rate of birth defects and miscarriages. I printed a story on that and people started to get upset...Karen Schroeder was very upset...we never linked the two before...I was looking for cancer, lung problems and stuff like that...we never realized that it could cause such horrible effects and I knew about Karen's daughter...well, this was a very significant event in the history of the Love Canal because there it was in their own words...a health problem exists in the Love Canal...and that brought in the media from all over the country and it no longer was a private issue (Interview, 07/02/80).

Congressman John LaFalce observes that the government's recognition of the Love Canal as a health hazard encouraged

people to recognize and define the issue as a legitimate social problem.

...government didn't make it a big issue until there was some finding that in fact there were chemicals which were toxic in nature and which could be dangerous to human beings... and we needed some statements from health officials. And, it was not until 1978, when EPA and the state health department in fact conducted adequate enough testing, for the State of New York to make a statement that there was a health problem... that it got attention. It really didn't get any attention until they made the statement that there was a health problem (Interview, 09/07/80).

A significant factor in the development of social problems is that the issue obtains recognition by government agencies. The recognition of social problems became official only after a public declaration is made by government officials although the problem may already be causing great concern and awareness to various parties. Declarations by public officials confirm the existence of a genuine or real social problem and set in motion public and institutional responses to remedy the situation. Therefore, as soon as the issue is granted publicity and respectability by government, the public soon learns that something can be done to alleviate the problem. This implies that government may play a crucial role in not only granting the social problem legitimacy, but in organizing grass-root social problem activities and institutional responses. Dr. David Axelrod, New York State

Health Commissioner, emphasizes the role the department of health has played in mobilizing local claims-making activities at the Love Canal.

I think that what is unfortunate is that it took so long for the residents at the Love Canal to take the kind of action they have currently being taken... and I think that what it demonstrates is that when government does take an action and does provide the basic information, which people can draw conclusions, then there is an organization of political and social forces which can be very constructive... but unfortunately the political forces usually wait and come into the scene at a very late stage and do not make their presence felt sufficiently early to permit the kinds of action that should have been made perhaps some ten years earlier...the state department of health ultimately turned out to be the single government agency which achieved the most in terms of bringing to their own attention the kinds of hazards that are related to the Love Canal (Interview, 06/05/80).

The Love Canal Homeowners Association

By mid-1978, the community of the Love Canal area became concerned and aware of the numerous problems caused by the chemical leakage. They effectively organized themselves in a much more visible and disciplined manner. The media was monitoring their activities (The Niagara Gazette, May 23, 1978-- "Love Canal area residents list grievances"; August 4, 1978-- "Love Canal group meet officials"; August 5, 1978-- "Canal group picking lawyer"; August, 1978--

"Governor Carey here, addresses Love Canal Homeowners Association").

The creation of a citizen group, the Love Canal Homeowners Association (L.C.H.A.), consisting of over 1,000 families and representing more than 90 percent of the residents in the Love Canal area, provided the community with a powerful bargaining agency to effectively channel their grievances to government agencies. Dr. Beverly Paigen outlines the significance of establishing an organization to attract, obtain and maintain governmental recognition.

...so I took the soil samples and I talked to Dr. Wayne Hadley (an environmental scientist who brought the Love Canal to Dr. Paigen's attention and asked her if she could help) and I talked to Mrs. Gibbs...and I said that I thought that they needed an organization to deal with the State of New York. Instead of a hundred upset residents asking questions... if they had an organization and one leader asking the questions...then they would get the answers back and faster...and in a more factual form... and I said I thought they needed a lawyer and press support...and of a larger scope than Mike Brown...to keep the issue active. So Lois Gibbs agreed and said she was walking the streets and she called an organization meeting (Interview, 07/12/79).

In June of 1978, Lois Gibbs had come to take "an active concern in the chemical contamination problem in the neighbourhood" and formed a committee of approximately 161 members (Testimony presented to the House Sub-Committee on Oversight Investigation in 1979 by Lois Gibbs). The

committee's campaign to produce a community awareness of the problem resulted in the formation of the L.C.H.A. in August of 1978.

The Association itself was formed on August 4 of 1978. Before that the L.C.H.A. was a parents movement back in June, 1978. That's how it began. We knew there was chemicals at the school, at 99th Street School...and we went door-to-door to shut down the school as a parent movement saying we were not going to send out children there no longer. From there it grew into the Love Canal Committee, so by August 2nd, when we went to Albany, we were the Love Canal Committee to address the Love Canal situation, to push government to do something about the area and to stop subjecting our children and our families to the different chemicals and health defects that we were suffering...After that we turned into an association, we grew both in number and in strength. We have well over 1,000 people in the Association and mainly what we have been doing right along is fighting to evacuate more people (Interview, 09/10/79)

Having publicly outlined its goals, the L.C.H.A. was formed to voice the opinion of residents on the decisions made by government policy-makers. Institutionalizing their claims became *la raison d'etre* for the L.C.H.A. The L.C.H.A. was no longer an ad hoc protest group. It now had elected representatives, acquired monetary resources to operate the organization, made press releases, and sought the help of experts to validate their claims. The group had a real and material interest in the way the problem was addressed and institutionalized by authorities.

Once goals have been publicly acknowledged, the organization will establish what strategies it will use to press claims. They will become experts in the field of attracting media attention and in keeping the issue alive with public officials. Nancy Dubner of the New York State Department of Transportation states that the L.C.H.A. have used the media and the elections to pressure government to recognize its claims.

I think the L.C.H.A. is largely responsible for the Love Canal issue to be newsworthy...they know how to use the media and keep the story on the front page and that is fantastic. I think that if you had to point to the single most important element in why the issue has been a continuing news story it is because they have been able to seize and see those opportunities and make stories out of them (Interview, 08/05/80)

In a democratic society, elections can be employed as an effective vehicle to channel grievances. The L.C.H.A. have mobilized a visible and powerful force that has attracted the attention of politicians. Nancy Dubner notes that the L.C.H.A. made use of the city and state elections (and now the 1980 federal election) to force politicians to respond to their statements.

Certainly one aspect of why the Love Canal became a major public issue in 1978 was because of the timing of the political calendar...you know it is a fact of political life that some issues will get attention at some time and may be overlooked at other

times because there is a politically expedient reason for paying attention to it...I think that was an element of what happened in 1978...it was that time in the political calendar when politicians would respond because they do not want to be accused of being not responsive (Interview, 08/05/80).

When governmental agencies or other officials and influential institutions to which claims are addressed respond to the complaints of some group, the social problem activity undergoes a considerable transformation. The claim is acknowledged and the protest group is granted credibility. The formal recognition of the group may range from passive acknowledgment of the claim to active attempts to control, regulate, or eliminate the condition at issue in the claim. "Any of these responses is likely to give the protest group a degree of recognition or standing that it did not have before" (Spector and Kitsuse, 1977:148). The group is asked to participate in official proceedings to remedy the problem. Both government agencies and the press have come to perceive the L.C.H.A. as the main group that represents the community's interest. Lois Gibbs states that government agencies have made an attempt to include the L.C.H.A. in every major decision that has been made in the Love Canal issue.

...by the 15th of August the association had set up an office to meet the needs of the residents. The L.C.H.A. was formed to voice the opinion of residents on the decision made by State Authorities which

would affect our lives. Since that time I have spent part of everyday working with the various government agency representatives. I have first-hand experience of the daily workings of the different state departments which include the Department of Health, Department of Transportation, Department of Environmental Conservation, the Red Cross, the Love Canal Task Force, the Niagara County Mental Crisis Center, the Office of Disaster Preparedness, Department of Social Services and the Federal Disaster Assistance Administration. I have also met with local elected officials to discuss different measures which may be taken to provide assistance to the residents on the local, state and federal level. Several times I met with Governor Carey to discuss possible relocation of families, the proposed construction plan and, in general, the needs of the residents (Interview, 09/10/79).

However, just as obtaining a response from an official agency to a protest group's claim may be the result of a long struggle to gain standing, the process of institutionalizing the protest group's claims also involves complex negotiation. Each party will utilize considerable pressure upon each other to define the issue according to their vested concerns.

As with Molotch's (1975) finding that government officials attempted to minimize the extent of damages in Santa Barbara, the State of New York has downplayed the seriousness of the conditions at the Love Canal. For example, an early (and continuing) issue was how did the chemicals migrate in the canal and how far did they migrate,

The L.C.H.A., with the support of its scientific consultants were successful in questioning the decisions of government officials and to further define the extent of the health effects and chemical contamination resulting from the Love Canal. Lois Gibbs states that on two separate issues, the "swale theory" and the "miscarriage data;" the L.C.H.A. questioned the reliability of the conclusions reached by state authorities on these issues. Lois Gibbs explains:

Upon describing the nature of the contamination in the area, state officials concerned themselves mostly with lateral migration directly into homes adjacent to the Canal. However, after reviewing old photographs and consulting materials made available by the State, it became apparent that the nature of the contamination might be greatly influenced by the presence of old stream beds or "swales" which existed during the period when the Canal was still filled with water. I went to the University of Buffalo and consulted with Dr. Charles Ebert, a soils specialist, who proved to be most helpful in describing and defining the location and characteristics of these stream beds. By mid-September I mentioned what I was finding to state authorities and they referred to my efforts as "useless housewife data." Working with Dr. Beverly Paigen, a cancer research scientist, I looked at the nature of the health effects found along the stream beds. The association between the health effects and the location of old streams was quite high, so I then looked at the available evidence on the chemical contamination along the stream beds. This was not as convincing but a positive trend was evident. On November 1, 1978, Dr. Paigen and Dr. Steven Lester, a toxicologist who was

hired by New York State to be our on-site monitor and scientific consultant, presented these findings to the Department of Health in Albany. The State representatives listened, then released a statement which read in part "...that information presented by the homeowners' consultants was not gathered in a scientific fashion" and commented that they were not persuaded to draw any of the same conclusions. This position was reaffirmed in statements made during a public meeting on November 22, 1978. However, on December 20, 1978 at a Task Force meeting, the State admitted that contamination was evident outside the first two rings of houses and that the stream beds may indeed represent an avenue of escape for chemicals from the canal. The evaluation of the miscarriage data was similarly handled by the state (Interview, 01/11/79).

What we now have is an organization that has defined the problems and relevant issues at the Love Canal, documents and files its complaints to the responsible government agency, and seeks and demands appropriate action to deal with the problem. Dr. Beverly Paigen states:

You need a lot of angry people...so it wasn't really until the residents got organized that it went from a few complaining on an individual basis to a large organized community with elected officials and media attention that Love Canal became Love Canal... don't think it would have been Love Canal if it would have been a hundred individuals complaining to the Health Department and each one being put off by this or that or the other thing. Once you have gotten an organization and once you have a person demanding and writing responses and the press monitoring everything, then things start to happen and the situation changes overnight (Interview, 07/12/79).

When asked why the Love Canal issue was granted legitimacy in 1978 and continues to attract public attention, all but one of the respondents mentioned that the L.C.H.A. was a main factor in the Love Canal becoming a public issue.

An important element in the life history of a social problem is the generation of systematic political pressure. Without the support of such pressures, social problems will quickly fade. Downs (1972) observes that as the costs for solving the problem are recognized, both the public and government will be less supportive of the issue. People may realize that part of the problem results from arrangements that are providing significant benefits to powerful groups. The increasing recognition that there is a relationship between problems and "its solutions" results in a sudden decrease of public support. Consequently, if the issue is to survive and maintain public support, the claims-making group must continue to generate cases, information, and data to support their statements. A debate between the protest group and the responsible parties must exist to increase the visibility of the claims and facilitate the creation of public awareness of the imputed condition. If claim-makers are successful in attracting the public's attention, there will be a continuous process of evaluation and public definition of the "problematic condition."

Roger Cook of the E.T.F. highlights the significant function the L.C.H.A. has played in translating the Love Canal from a private issue to a public issue and in maintaining the issue in the public's eye.

The history of the whole thing has been residents...who had to push, push and push to get the government to act... even when the EPA and the State initially got involved it was because of the residents complaining...who kept harassing, kept calling,...putting pressure upon officials to do something about the situation. And I think that as long as the people don't feel they have the truth, the Love Canal issue will just continue...you know right after, there is all these assurances that it is safe and so on and so forth, and a couple of weeks ago they stated that they were going to revitalize and stabilize the area and they found new chemicals in the Black Creek area, which is north, four or five blocks of the Canal...which the residents knew they were going to find...the residents are hip...their hypotheses have been borned out and at each point the state has denied their hypotheses and then ended up having to more or less support them...and I guess until the truth comes out I imagine there is going to be a Love Canal...as long as there is people up there still agitating and wanting to know what is going on there will be an issue (Interview, 21/11/79).

Congressman LaFalce states that the L.C.H.A. have mobilized enough public support and media attention to attract government attention.

They have been the primary...focal point for statements regarding the problems at the Love Canal. It has not been the Love Canal, it has not been the New York

State Health Department, nor the Department of Environmental Conservation or the City of Niagara Falls. When they have made statements there has been major publicity but the constant complaints has come from the Love Canal Homeowners Association ...and they are the ones who have placed the constant pressure through their use of the media upon government officials to act...to recognize their problems as they perceive it and to act upon it (Interview, 9/07/80).

Dr. David Axelrod, New York State Health Commissioner, argues that one can measure the success of the L.C.H.A. in terms of the problems of hazardous waste disposal being brought to the world's attention (The Niagara Gazette, August 28, 1978--"Word of Love Canal pollution gets to Ireland"; November 28, 1978--"Canada bans PCB products"; May 13, 1979--"Soviet expect to visit Love Canal").

I think they played a very major role...there is no question that they continue to bring to national attention if not international attention, the potential hazards associated with the long-term risks from these kinds of exposures. I think that perhaps their success has been not so much in terms of what it has meant to the State of New York, as to what it has meant to the entire nation and perhaps the entire world in terms of bringing to public consciousness the kinds of difficulties that do arise when a landfill like the Love Canal is built in proximity to a major area where people are living (Interview, 6/05/80).

As Spector and Kitsuse (1977) have argued, groups that have a larger membership, greater constituency, more money, and greater discipline and organization will be more effective in pressing their claims than groups that lack these attributes. The creation of the L.C.H.A. is not ahistorical. It developed and has its roots in previous attempts to do something about the chemical odors and health hazards at the Love Canal. Roger Cook notes:

I am saying that in 1976...you see the homeowners, they got started around July of 1978. Lois started, got involved as I recall back in June of 1978...and she began her survey. Before that in 1976, Karen Schroeder and a number of people, homeowners, had become aware that there was something wrong there and they had done something similar...they had gotten people together and compared notes as to rates of illnesses and Mike Brown, the reporter of The Niagara Gazette, at that time he got involved as well...So that Lois and the people who built the association built upon what had been built a year earlier... they followed through on Karen's work (Interview, 21/11/79).

Social problems activities develop with the passage of time, as claim-makers organize their activities. Such work constitutes defining the issues; constructing a line of analysis to explain the occurrence of the problem; arousing public support; organizing their activities in a visible organization; and attracting media and government recognition.

The Media

Most people rely on television and newspapers for information concerning social problems (Hubbard et al., 1975). Blumer (1971) states that the media are usually discussed in terms of their impacts during the emergent and legitimizing phases of social problems. Although much more research attention needs to be devoted to the effects the media have in shaping social problem activities, the available literature suggests that

...the media coverage of social problems does to some extent not only create an awareness of these problems, but also a sense that something is or ought to be done about them (Hubbard, et al., 1975:25)

Mauss points out:

Whatever may be the impact of the media in the actual construction of reality, however, there is no doubt about the importance of the media in the dissemination of information and ideas, and therefore in the spreading of consensual reality of all kinds (1975:10).

Hubbard (1973) reviewed a number of investigations which social scientists have made into media effects, with particular attention to the media's influence on the public's perception of social problems. It is clear from Hubbard's work that the media does play a significant role in generating concern and awareness of social problems. The mass media may sensitize the public to certain types of social problems (Cohen and Young, 1973). It may set agendas for public

discussion. The media have vast information resources; by utilizing them, the media may have a number of indirect effects on their audiences.

For example, the media could play a role in setting action and cognitive agendas for people, in initiating attitude formation about certain topics or events, and in the formation and development of significant public issues (Hubbard et al., 1975: 24-25).

These possibilities suggest the types of functions that media have in the definition process and development of social problems. Interest groups having the greatest access to the media may shape the construction of reality surrounding social problems (Molotch and Lester, 1974).

The Love Canal incident has been widely reported in the news media (The Niagara Gazette, June 21, 1978-- "NBC's Today show shows Love Canal area"; December 23, 1979-- "Dominated Local news in 1979"). All of the respondents interviewed outlined the significant contribution the media have played in generating community awareness of the Love Canal. Roger Cook observes that Michael Brown, a former reporter for The Niagara Gazette, was not only instrumental in getting government officials to conduct their environmental and health studies at the Love Canal but his series of articles in 1977-78 were

...sort of instrumental in helping to organize some of the people at that point...just got them together and kind of compared their stories because

at that time there were a number of people who had begun to hypothesize that there was a high rate of illnesses in the community (Interview, 21/11/79).

The importance of the mass media in awakening public awareness to the Love Canal problem is illustrated in how Lois Gibbs, president of the L.C.H.A., initially discovered that there was a problem in the neighbourhood.

I didn't know that the chemicals were there until last summer, until May of 1978. It was only after reading some newspaper articles that a news reporter from a local paper had written on the Love Canal that I became aware that there was a problem there...that there was toxication there and that my children were attending that school...and that's when I said wait a minute, no longer is that kid going to go there at any cost and that was true of many people (Interview, 09/10/79).

Media emphasis of social problems can mobilize an awareness that generates social problem activities. Elena Thornton, a member of the Love Canal Renters Association, states that by reading the newspapers she developed an interest in the Love Canal issue.

Well, it was in the paper. Everything was basically concentrated on the homeowners...and I would read the paper and then I started realizing how close we were to it...and I started then reading the paper everyday about it and we became concerned. We started a petition, asking people to sign it...we simply had a couple of statements on the top, you know, that we would like the same things that was being done for the homeowners to be done in our area. We asked the families

to help form an organization so that we could get help and most people said yes, that they were reading about the Love Canal and they were interested and that's how we started (Interview, 27/09/80).

The media can be used as an effective vehicle to press claims and to generate a discussion with governmental officials. Lois Gibbs states that the Love Canal Homeowners Association have used the media to pressure politicians to respond to their claims.

Well, that is one of our biggest assets, it has really helped us, it has made us what we are today. When we give something to the media, and we say, as I said with the blood tests, we give that to the media and they do a story...they have to call Commissioner Axelrod, New York State Health Commissioner, on the phone and say what is Mrs. Gibbs talking about, is this true...and he says "yes it is true," well tell me why...and they have to respond to things, and it puts pressure on them (Interview, 01/11/79)

Roger Cook, as well as some of the other respondents, mentions that between the influence of the L.C.H.A. and the press, the Love Canal was socially constructed not only into a local public issue, but was developed into a national issue that has attracted the public's attention for well over two years.

Between the Love Canal Homeowners Association and the press, they have made Love Canal a big social issue. I think that the interesting question that I have not been able to answer myself is how it is that the press has been so sympathetic to the homeowners...there has been a kind of sympathy that I have never seen before at least...I was involved in the

Anti-War Movement and we never were able to get the kind of press that the homeowners have got...they have gotten really sympathetic attention from especially The Buffalo Evening News, The Niagara Gazette...The Courier has been a little more distant recently, but the other two papers have been genuinely sympathetic (Interview, 21/11/79).

Thomas Martin states:

...it is my observation that the press has really made Lois and kept her there, because my experiences have been that usually you do not get any place unless you really have for these kind of grass-root issues, unless you have quite a following and the Homeowners Association as an organization has been unlike any other I have ever worked with because it has been primarily three people that have been running that operation with some volunteer help, but no sustain organization, you know what I mean, no organizational structure...so the press has been most helpful in visualizing their claims (Interview, 17/10/79).

Michael Brown highlights how the media have developed the Love Canal situation into a national concern.

McNeil had finished his piece for The New York Times and made the front page... which is a significant media. Anything that makes the front page of The New York Times is an important story as far as America is concerned...and it puts tremendous pressure on government to respond... Anyways at the same time the Health Commissioner came out the same morning and declared the area a health hazard... that pregnant women and children under the age of two should leave the southern end of the Love Canal immediately. BOOM ...NBC, CBS, ABC are in town with their cameras...there are reporters from all over the place...when I came back from Albany, the newsroom was filled with

out of town newsreporters waiting in line to ask questions about the Love Canal...and they were all over the neighbourhood and people were telling them about their plight...and the story grew from there (Interview, 07/02/80).

The way the press and other media handle the story is very important to the life history of any social issue. The fact that the media was generally responsive and sympathetic to the community's plight enabled the story to gain wider coverage across the nation and thus as Spector and Kitsuse mention "the staging of a 'national event' may be crucial in transforming private troubles into public issues and controversies" (1977:45). The statement made by Eckharat Beck, regional director for the EPA highlights this transformation:

The Love Canal site is one of 38 known industrial waste landfills in Niagara County, and probably the most serious health hazard of the thousands in the nation. We've been burying these things like ticking time bombs-they'll all leach out in 100 or 100,000 years. We're mortgaging our future if we don't control them more carefully (The Toronto Globe and Mail, August 3, 1978).

In his declaration, former U.S. President, Jimmy Carter, labelled the Love Canal problem as a "national disaster area," thus making reference that the issue was no longer only a local or state problem but a national problem and concern (The Niagara Gazette, August 4, 1979-- "Dumps are national problem in Year in Nation; Love Canal cited").

Blowing the Whistle

Ross and Staines (1971) argue that public recognition of a social issue is a complex political process that often evolves around the issue of salience and legitimacy. That is, how important is the issue rated by the general public and how much recognition and attention is it given by public officials. In almost every social controversy, we discover the presence of "underdog partisans." They bring into the discussion of social problem activities the capacity to not only arouse agitation, as well as gain the support of the public, but they give the issue visibility, thus transforming a private issue into a public issue. Becker (1963) has called these underdog partisans "moral crusaders." He argues that moral crusaders derive their power and legitimacy from their superior position they hold in society. Studying the role moral crusaders play in the development of social problem activities is an important empirical consideration since they formulate and document the "reality" of the problem.

Mauss (1975) makes an important distinction between "informal consensual reality" and "formal consensual reality." The former are distinguished from the more formal parameters of reality primarily by their unsystematic character. Formal consensual reality are based upon some kind of adequate sampling techniques and offer empirical evidence obtained from a number of different tests, experiments, or observa-

tions. People are likely to regard data from such sources as the ultimate or most reliable level of "truth." Informal consensual reality, by contrast, is derived from anecdotal or unscientific observations. While anecdotes really cannot properly be offered as evidence of anything in a systematic or reliable sense, they nevertheless initially shape claims-making activities. In the hope of achieving social recognition, protest groups will turn to moral crusaders who have the proper scientific training to provide "proof" to their claims. The claim will be documented in a form that is acceptable to the public. Ross and Staines (1971) further argue that underdog partisans not only shape the definition and solution of a social issue, but they often give the social issue the legitimacy that "inside interest groups" sometimes can not attain because of their vested interest in the issue. Donna Ogg of the ETF, a church group that was formed to push government to permanently relocate the residents in the Love Canal area, states that the ETF derives its legitimacy from being an "outside group" as opposed to an indigenous group.

Both the ETF and the L.C.H.A. share similar goals...we are however different in the sense that we are an outside group... so we are providing a certain political voice to the political agencies that the L.C.H.A. or any resident, cannot provide...because we are in a position where we have nothing to gain from whatever decision is made about the people in Love Canal...financially. Therefore, we are able to speak in a somewhat more objective way or at any rate what we say is apt to be treated as it was a somewhat objective comment, than those by the people who

live out there...So we think we give impetus in the areas where we are in agreement to what it is the L.C.H.A. and other residents are asking for ...I think we have credibility because we are being funded by various denominations (Interview, 1/11/79).

Dr. Beverly Paigen, an expert on environmental carcinogens has been acting as a scientific advisor to the families in the Love Canal area. She has worked with the L.C.H.A. in examining the health effects caused by the chemicals buried in the contaminated area. Becker (1963) observes that moral crusaders often become involved with controversial issues because of humanitarian motives. Dr. Beverly Paigen claims that she became involved with the Love Canal issue because she felt a moral and scientific obligation to help the residents with "a good cause."

They needed someone to check the state's finding and as an environmental scientist...I was very upset at the way the state was handling the questions the residents were asking. I felt that they were doing a disservice by first not reassuring the residents, where they could be reassured, and by not telling them the truth where there was a health hazard. For instance, they handed out a list of the chemicals, they handed out to individual residents the chemicals that were found in the basements of their homes with the levels but they would not summarize the information for the neighbourhood, they would not say what the toxic effects of those chemicals were, they would not say what levels were harmful although at the time the state had calculated that, they would not tell them anything...and you see the function of a state health department is to provide that

information. I thought that they really did need a scientist to help them at that point in time and besides I was really interested because my particular research is genetics susceptibility to these environmental chemicals...So I went up there with a dual purpose...One was to help some people in an environmental cause that I thought needed help and the second thing was personal research interests (Interview, 07/12/79).

The EFT was formed because the religious community in western New York felt that the residents were not being treated justly by government officials. Donna Ogg explains:

We are doing these things because we see oppression. When the emergency was first declared by Dr. Whalen, former commissioner of health, back in August of 1978, Dr. Moore had gone to inspect the Love Canal area and reviewed the situation and even prior to the erection of the fences, he began to speak about what he had seen, he wrote about what he had seen in our church newsletters and continued occasionally to comment upon the problems that existed there...and I did a little writing also about the problems with the chemicals...And after a number of articles had appeared...several of our church members said, "we as churches have to do something about Love Canal" because they felt that the residents of the area were not being dealt with adequately by the government agencies...and that an outside voice was perhaps necessary to call government officials to responsible behavior and to act properly towards the issues there (Interview, 1/11/79).

Jane Fonda, and other public celebrities (i.e.,

Ralph Nader), has been very active in publicizing the Love Canal issue to the American public. These individuals mention that their involvement with social problems derives from the conviction that these are very serious issues that ought to be brought to the public's attention.

Jane Fonda states:

I have a film career...I have six films that I am preparing right now...We have two children...you only do what we are doing if you really believe that it is important to get these issues talked about. I don't need controversy... I don't need any more publicity that I have had all my life as Henry Fonda's daughter and in my own right as an actress ...I am not doing this to further anything except get people thinking and discussing and debating and feeling that there is some hope (Buffalo Broadcasting Inc., October 13, 1979).

Moral crusaders can attract public visibility to social problems. Donna Ogg argues that because Jane Fonda is a national figure she has mobilized the public's awareness to the Love Canal situation.

I understand from numerous people that Jane Fonda has aroused national attention to Love Canal...for example, I was in New York City with a friend from the mid-west, who said that I just heard about the Love Canal for the very first time, I mentioned Niagara Falls and she said...oh, Love Canal is in Niagara Falls ...and I said yes...that is very interesting, where did you hear that and she said that Jane Fonda...she was in her town and she was discussing the Love Canal. My parents live in the Pittsburg area and Jane Fonda and Tom Hayden were there shortly after they had been here and indeed she had

spoken about the Love Canal down there... and apparently she is doing what she indicated she would do when she was here ...which is spreading the news throughout the country about the Love Canal problem (Interview, 01/11/79).

Dr. Beverly Paigen has been one of the key figures that has been instrumental in getting the Love Canal community to organize their grievances in a much more visible organizational fashion and in attracting national media attention.

I told Lois Gibbs that they needed an organization to deal with the State of New York...and I called several of my press friends and said you know there is a story of nation-wide importance right up there in Niagara Falls, how come you are not covering it and they said "we did not know about it" and I said there is an organizational meeting coming up Friday and I am going to speak and the lawyer is going to speak and they are going to form an organization... and they have received national coverage and things really took off since then (Interview, 07/12/79).

Initially, residents began collecting information in an informal way on diseases in the neighbourhood and plotting these on a map. The residents found that the diseases seemed to cluster in particular areas of the neighbourhood. To obtain credibility, residents sought the help of Dr. Beverly Paigen, a cancer research scientist whose research interest is genetic susceptibility to environmental toxins. Dr. Paigen comments:

When I looked at what the L.C.H.A. did, I realized that Lois had not really collected the information correctly from a scientific

point of view. What had happened is that Lois had started collecting the diseases and plotting them on a map and she had them clustered along the stream beds... the stream was not there anymore, it had been filled with construction rubbish and so all you saw was the lawn but the old timers in the neighbourhood told her about the stream beds...and when she showed the clusters to them and asked them about what it meant to them...they said "oh, we had a stream running down there"...then Lois called everybody along the stream bed and the diseases started to pile up but she did not call everybody in the other areas...so she had a non-random sample...so I discussed with the residents how to collect the health information in a scientifically acceptable way. They put aside all the information they had gathered and started making a systematic phone survey of each home, collecting information about the number of persons in each family, the length of time they had lived in the Love Canal area, and the health problems experienced by the family. More than 75% of the homes cooperated in the survey...and then I analyzed the data (Interview, 07/12/79).

The data revealed that those residents living in the "wet area"¹ showed an increase in several health problems including miscarriages, birth defects, nervous breakdowns, asthma and diseases of the urinary system as compared to those residents

¹ A wet area is those homes that border old streambeds. Dr. Paigen suggests that toxic chemicals are presently migrating through the soil along the paths of old streambeds that once criss-crossed the neighbourhood. These streams were filled with building rubble when the area was developed. The wet area is, according to Dr. Paigen's data, the heavily exposed population.

living in "dry areas."

The availability of Dr. Paigen's scientific services gave the L.C.H.A. the power to document its claims in a much more legitimate and acceptable manner. She had confirmed the residents' claims. Thomas Martin of the ETF states:

...so when Dr. Paigen came into the picture, here was an opportunity you see to verify what the residents had picked up rather casually...and it really gave some credibility to their suspicions (Interview, 17/10/79).

The mass media reported that a highly competent state employed environmental scientist had supported the claims that were made by the residents of the Love Canal area, thus adding the necessary ingredient of credibility to the issue. Furthermore, the findings of Dr. Paigen's study gave the Love Canal community a reference point to assess the validity of the studies conducted by the State of New York. Consequently, government officials have had a much more difficult time to impose their alternative definition of the problem and to dismiss the grievances voiced by residents as "unscientific and premature." That is, these scientific reports provided the L.C.H.A. with a bargaining tool that enabled them to confront and call into question the definitional interpretations provided by state agencies. The L.C.H.A. was able to present competing diagnoses of the problem and announce them publicly.

Ross and Staines (1971) state that various actors and agencies involved with any given social issue have strong

political and/or personal interests in selecting certain attributions defining the cause of the problem or defining the extent of the problem. Since diagnoses of social problems are reached by people in different social and political situations, conflicts between alternative patterns of definition, seriousness of the issue, and attribution becomes inevitable. For example, the residents' finding that there is a 3½ times greater chance of women having miscarriages during pregnancy than the New York State Department of Health has reported, and that pollution does not stop at the fence built by the State of New York, led Congressman John LaFalce to request the advice of an outside committee (a panel of scientists from HEW and EPA) to assess the validity of the two sets of data and to determine which of the two alternative definitions of the same problem was "more accurate." The committee of scientists from HEW and EPA, after reviewing the data gathered by the residents and the New York State Department of Health on the medical conditions at the Love Canal area, concluded that

...it is acknowledged that the scientists conducting the ongoing studies are State employees. Therefore, although they are highly competent and are held in high esteem by their peers, the public may perceive a conflict of interest. For this reason, the involvement of outside scientists both in the interpretation of data and the formulation of recommendations to the State should be continued (David Rall, Chairperson of the Meetings between scientists from HEW and EPA, and L.C.H.A. representatives and scientists of the State of New York Department of Health concerning the Love Canal).

Hence, with the support of scientists, the L.C.H.A. have been able to challenge the decisions made by the State of New York. Lois Gibbs illustrates the critical role moral crusaders have played in shaping governments' responses to the Love Canal.

We have had numerous scientists and well known public figures supporting us. One is Janet Sherman, who is a toxicologist and works for the EPA...and she issued a report that stated that she was surprised by what she had seen up here, and after reviewing some of the medical histories of the residents she stated that she believed people should be evacuated and that government should not take any further risks with the residents living in the Love Canal area. So, we have had a lot of these different public statements by credible people, who investigated and studied it, coming out. Plus, Jane Fonda coming down and spreading the word out... stating in the media that she was shocked by what she saw...we were like prisoners, worse than a war, living in concentration camps surrounded by a fence...and just everything provided so much pressure on the State of New York that I think they had to respond to our claims and make adjustments in their policies...we were just too loud, too noisy, and we were getting too much national press and support (Interview, 01/11/79).

By taking on an advocacy role and questioning the decision-making process of the status quo, moral crusaders often find themselves in open conflict with their superiors. For instance, Dr. Paigen states that "blowing the whistle" has caused serious consequences on her future employment opportunities with the New York Department of Health.

Well, I have been involved with many environmental battles before and I never had this kind of difficulty. Now I must admit that in October (1978), when I was analyzing the data and I saw that there was an increased health risk for people outside the fence and I saw that the Health Department was wrong, I was nervous about my job because I realized even then that to criticize large corporations as I have done in the past is one thing, but criticizing your own institution, your own employers is quite a different thing... because they have power over you that the others don't have.

...I thought the politics would not extend to the scientists...the working scientists...but at any rate to make a long story short I have been harassed since then...there have been moments when there was not too much harassment but in March of '79 I testified before a congressional hearing and since then the harassment has been severe and they are building a file on me, there are memos written here about how poor my work is...and I have submitted one grant since then and that grant has never left this institute (Interview, 07/12/79).

Aware of the implications in being a whistle blower

Dr. Paigen mentions:

I had remembered that there had been a conference on professional responsibility ...when the ethics of our profession and what you should do conflict with what your employers want you to do...and a book came out of that conference called Whistle Blowing and it was put out by Nader's group and it has the personal history of many whistle blowers. So I read the stories of these people and also there was some closing chapters in the

book about how to succeed as a whistle blower, what to do, what not to do and so even in October I sort of developed a code of behavior for myself and one was to never go to the press until I had pursued all the internal routes and tried to get the institution to change appropriately by whatever I could do in the side and then when I did go to the press I never in any way said that the state was wrong or attack any state scientists, I only said what I found, and what I concluded...to only say the facts and to just refuse to answer any questions about or to ever being led into any criticisms of the state and also to protect myself by obeying the every single possible rule here at the institute ...so that they could not get me on anything else...so I pretty much followed those rules and I also was very careful to document everything...for instance if the harassment was in a phone call then I would immediately write a memo back to the person saying as in the phone call you stated such and such and you know I really object to this...it is unfair...whatever I was saying I would document that that had occurred (Interview, 07/12/79).

Dr. Beverly Paigen is not the only "underdog partisan" who has suffered because of involvement with the Love Canal issue. Michael Brown, a former reporter for The Niagara Gazette, stated that his coverage of the story caused some disturbance among his superiors and "disagreement began to surface in the newsroom on how the stories should be printed" (Brown, 1979:38). He states that city officials tried to discourage him from writing on the Love Canal.

Dr. Clifford, the city health commissioner, discouraged me from further writing on the health problems at the Love Canal. One time he called me up on the phone

and said "you know when are you going to go back to being a reporter" and I said "as opposed to what?"...I am reporting health problems here in the area and he said "there is no problem here, sir, there is no danger"...he told me that flatly and he was a surgeon...he certainly knew more about medicine than I did. The city manager took me in his office and told me that I was emotional, overreacting...that I was going to create a panic, that was the word they always used, a panic or can of worms...he told me that it was no more dangerous at the Love Canal than smoking a couple of cigarettes a day.

...there were many rumors that I was going to be fired...I had many heated discussions with my editor and the publisher about my involvement with the Love Canal...and yes, I left on bad terms (Interview, 07/02/80).

The following year, Michael Brown resigned from his job at The Niagara Gazette and moved to New York City where he began to write articles and a book, Laying Waste, on the Love Canal.

Dr. Paigen observes that

...in contrast each one of the scientists who have followed the party line in the Love Canal in the last year have been promoted...there are six of them who have had huge promotions beyond which I think they could have ever dreamed of getting and that is because they were down here and they did the right thing and they followed the party line and they got promoted and whereas the ones of us who didn't have been harassed, demoted or transformed (Interview, 07/12/79).

In summary, the presence of moral crusaders enables the social problem to achieve public salience and legitimacy. The involvement of moral crusaders with social problem activities

gives the issue the necessary impetus for it to be brought to the public's attention and for government officials to institutionalize the issue into their agendas-- giving the social problem a legitimate mandate to become an official and controversial social issue.

Conclusion

Incorporating social problems into the social structure is dependent upon several significant factors. In this chapter, two critical contingencies have been suggested for the emergence of social problem activities. Firstly, successful claims-making activities are dependent upon the following sequence of events: private recognition of the issue, the construction of a line of analysis for understanding the issue, the mobilization of public support, and the strategies and mechanisms of pressing the issue of authorities. In order for a social problem to emerge from private to public visibility, the claim must be rooted in a rhetoric that accentuates political action. Hence, the transformation stage of the public recognition of an issue is a significant variable that influences social problem activities. Secondly, social problems are the social products of the work of several institutional actors. It has been illustrated that moral crusaders, the media and the political elite play major roles in the social construction and life history of social

problems. Experts underwrite the validity of the claim, the media provides visibility to the issue, and the political elite grants or denies legitimacy to the problem.

CHAPTER 7

MAIN PLAYERS IN THE LOVE CANAL ISSUE: A CONTENT ANALYSIS

Introduction

Although much time and effort has been spent in developing a theoretically subjective approach to the study of social problems, little systematic data has been collected to test the adequacies and inadequacies of this approach. Having argued that the Love Canal crisis is a by-product of individuals and groups translating their claims into a socially produced social problem, I will provide additional empirical support to this claim by conducting a content analysis of newspaper articles on the Love Canal.

Newspapers very often are initially the primary source of information that document emerging social problems. If the issue is newsworthy, newspapers provide a detailed coverage of the problem. Participants involved in the issue have a special interest to reveal their positions to newspapers. Hence, researchers can utilize the print media as a source for documentation of emerging social problems. If the proposition that social problems are the outcome of claim-makers imposing their definition of reality upon the condition, and hence manufacturing a social problem is

accurate, then we can expect the newspaper media to report and identify these individuals and/or groups as prominent figures in the issue.

Procedure

A random sample¹ of all articles published on the Love Canal from October 3, 1976 to June 7, 1980² was undertaken to determine who the main players were as reported by The Niagara Gazette.³ A main player is operationalized as any individual and/or group who have an impact on the events at the Love Canal and who are newsworthy over an extended period of time. A frequency-count measure of every individual and/or group that were quoted in the articles was taken. If an individual was a spokesperson for a group, then that unit would be coded under the category of the group's name.

¹ Because it often is not feasible to analyze the entire population of available documentation on a given topic, sampling is frequently used with content analysis. In order to provide a relatively representative sample of the initial population listing, 1/3 of the population was selected as the sample size.

² October 3, 1976 was when the first article on the Love Canal was reported in The Niagara Gazette. Although the Love Canal situation is still an on-going social controversy, June 7, 1980 was used as a cut-off point for this research project.

³ A list of all of the articles published by The Niagara Gazette on the Love Canal was obtained from the Niagara Falls Public Library. This is a comprehensive list because the Library keeps a catalogue entry on every article published by The Niagara Gazette on the Love Canal. The list constituted the sampling frame.

The Niagara Gazette was selected because firstly, it is the most circulated local newspaper, and secondly, it has given the topic extensive media coverage. During the period studied, 1,263 articles on the Love Canal were published.

A major methodological question that was confronted during this analysis was what days were to be selected for study. Since it is very likely that certain individuals and/or groups are available or give press releases only on certain days of the week, a random sample of Sunday through Friday was selected. This would eliminate the possibility of collecting a biased sample because this procedure assures that every individual and/or group will have an equal chance to be included in the sample. Every Saturday was included since Saturday editions provide summaries for the events that occurred during the course of the week.

Main Players at the Love Canal

Using the number of times an individual and/or organization made a public statement in The Niagara Gazette to measure who the main players were, Table 7:1 illustrates that local groups were very active in raising the Love Canal issue in the mass media. Of all public statements made by the various spokesmen, local groups accounted for 35% of recorded statements. The Love Canal Homeowners Association (LCHA), a citizen group representing more than 90% of the residents in the Love Canal area, was the major local

TABLE 7:1

Direct or Indirect* Statements Made by Various Spokespersons
on the Love Canal Over a Four-year Period (Presented in
Percentage)

Spokesperson	%	
<u>Local Groups</u>		
Love Canal Residents	14	} 35%
Love Canal Homeowners Association	18	
Love Canal Renters Association	2	
Concerned Area Residents	1	
<u>Crusaders</u>		
Dr. Beverly Paigen	3	} 14%
Ecumenical Task Force	4	
Politicians	5	
Others (i.e., Ralph Nader)	2	
<u>City of Niagara Falls</u>		
Niagara County Health Department	2	} 13%
City Spokesperson (i.e., Mayor, City Manager)	9	
City Researchers	2	
<u>State of New York</u>		
Governor H. Carey	3	} 24%
Department of Environmental Conservation	6	
Department of Transportation	7	
Department of Health	7	
State Researchers and Others	7	
<u>Federal Government</u>		
Environmental Protection Agency	6	} 7%
Others (i.e., Department of Defense)	1	

TABLE 7:1 (CONTINUED)

Spokesperson	%
<u>Hooker Chemicals and Plastics Corporation</u>	5%
<u>99th Street School Representatives</u>	2%
Total N	1369

* An indirect statement is a statement that has been paraphrased by the reporter (i.e., Dr. X. said that the chemicals found at the Love Canal were...).

organized group that vocalized community interests. The LCHA accounted for 14% of all public statements reported in the newspaper as opposed to respectively 2% and 1% by the Love Canal Renters Association and the Concerned Area Residents groups.

The State of New York was the second major group quoted. It accounted for 24% of all public statements, with the three main state agencies-- the Department of Health, the Department of Transportation, and the Department of Environmental Conservation-- being responsible for approximately the same number of public statements (respectively 7%, 7%, and 6%).

In almost every social controversy, we discover the presence of "underdog partisans," or what Becker (1963) has labelled "moral crusaders." Moral crusaders derive their power and legitimacy from their superior position they hold in society. Becker (1963) argues that crusaders bring into the discussion the capacity to not only cause controversy and arouse agitation, but they give the issue visibility, thus transforming a private issue into a public issue. Moral crusaders often give the social issue the legitimacy that local interest groups sometimes can not attain because of their vested interest in the issue (Ross and Staines, 1971). Table 7:1 shows that the various moral crusaders played an instrumental role in giving the issue salience and legitimacy. Moral crusaders accounted for 14% of all public statements

made on the Love Canal in The Niagara Gazette. More interesting, politicians were among the main spokesmen in the crusaders category. Ross and Staines (1971) have suggested that politicians may have many reasons for raising public issues and in playing the role of "underdog partisan." Nowhere is the politician's interest in social controversies greater than at election time.⁴ The politician who wants to be elected or re-elected must create issues on which he, but not any opponent, is strategically positioned. Or, he may need to arouse the voter's interest by paying attention to a popular issue in order to make a name for himself.

Respectively, the other main players were spokesmen and women of the City of Niagara Falls, the federal government, Hooker Chemicals and Plastics Corporation, and 99th Street School Representatives accounting for 13%, 7%, 5% and 2% of all public statements on the Love Canal reported in The Niagara Gazette.

Social Problems as Plays

Theorists of the subjective paradigm conceive social problems not as static conditions or instantaneous events, but rather as a sequence of activities that may move through different stages. These different stages may be characterized

⁴ During the peak of the Love Canal crisis, a city and state election took place.

by different casts of characters, different kinds of activities and different dilemmas.

An interesting way to think about social problems is in terms of a play. Social problems contain a cast of actors, where we find leading characters, minor characters, and extras. The reconstruction of social problems can be organized into acts and scenes; each scene characterized by different plots and subplots. Certain characters appear early in the life history of the social problem but as issues are defined and redefined they fade away; others are predominant throughout the life history of the social problem; while some actors make their debut late in the development of the social problem.

Table 7:2 illustrates that as the Love Canal issue evolved, different casts of characters emerged and were highlighted. By 1980, the Love Canal Homeowners Association (LCHA) was recognized by the media as being the major community interest. A decline of public statements made by the Love Canal residents and an increase of public statements made by the LCHA is observed. Residents who were critically affected by the Love Canal seem to have become relatively unimportant as the Love Canal problem evolved. Many were relocated thereby putting an end to their claims-making activities. The formation of an organized group that represents local interest brought forth one set of actors (the LCHA) to vocalize the community's position. Although

TABLE 7:2

Direct or Indirect* Statements Made by Various Spokespersons
on the Love Canal (Presented in Percentages)

Spokesperson	Year				
	1976-1977 ^X	1978	1979	1980	
<u>Local Groups</u>					
Love Canal Residents	37	18	6	8	38%
Love Canal Homeowners Association	-	20	22	25	
Love Canal Renters Association	-	2	1	3	
Concerned Area Residents	-	-	2	2	
	37%	40%	31%		
<u>Crusaders</u>					
Dr. Beverly Paigen	-	-	6	1	18%
Ecumenical Task Force	-	-	8	4	
Politicians	2	5	2	10	
Others (i.e., Ralph Nader)	-	1	2	3	
	2%	6%	18%		
<u>City of Niagara Falls</u>					
Niagara County Health Department	16	4	-	-	14%
City Spokesperson (i.e., Mayor, City Manager)	11	4	12	14	
City Researchers	14	1	-	-	
	41%	9%	12%		
<u>State of New York</u>					
Governor H. Carey	-	4	2	3	8%
Department of Environmental Conservation	14	6	5	-	
Department of Transportation	-	12	6	3	
Department of Health	-	8	11	2	
State Researchers and Others	-	5	-	-	
	14%	35%	23%		

TABLE 7:2 (CONTINUED)

Spokesperson	<u>Year</u>			
	1976-1977 ^X	1978	1979	1980
<u>Federal Government</u>				
Environmental Protection Agency	2	2	3	18
Others (i.e., Department of Defense)	-	2	2	-
	2%	4%	5%	18%
<u>Hooker Chemicals and Plastics Corporation</u>	2%	3%	8%	4%
<u>99th Street School Representatives</u>	2%	3%	3%	-

* An indirect statement is a statement that has been paraphrased by the reporter (i.e., Dr. X. said that the chemicals found at the Love Canal were...).

X Because of the small numbers of articles published during these years, I combined 1976-1977 into a single category.

the community's situation continues to attract attention, it is the LCHA who is utilizing the issue to press claims. The residents have become minor characters. Their presence is recognized as they may be called upon to advocate the LCHA's stance (i.e., participate in a demonstration) but the individuals no longer are the major characters. By now, the LCHA and other groups, have accumulated enough ammunition and recognition that they no longer depend upon the support of individual residents to press their claims.

Consistent with Spector and Kitsuse's (1977) statement, Table 7:2 indicates that moral crusaders do not initially raise the issue to the public's attention but only bring legitimacy to the issue once it is recognized as a social problem. It is only by 1979 that moral crusaders significantly participated in the Love Canal controversy. Whereas 2% of all public statements on the Love Canal were made by moral crusaders in 1976-1977, in 1979 and 1980 moral crusaders had made nine times as many statements (18%).

In addition, the data suggests that as a social problem is defined and redefined, and as solutions and costs are considered, different agencies are given jurisdiction over the problem. Initially, the Love Canal issue fell within the city's jurisdiction. In 1976-1977, the City of Niagara Falls was the main government agency releasing public statements on the Love Canal (The Niagara Gazette,

April 30, 1977-- "City Announces that Love Canal Remedy Work to Begin Soon"). The City of Niagara Falls was responsible for 41% of all public statements that appeared on the Love Canal in 1976-1977, as opposed to 14% by the State of New York and 2% by the federal government. As the issue became more complex and was brought to national attention, the problem was referred to the State of New York. (The Niagara Gazette, May 21, 1978-- "State to Study Love Canal Health"). By 1978 and 1979, a sharp decline on the number of statements made by the State of New York was noticed. A non-significant increase in the number of statements made by the federal government took place during this period (from 2% in 1976-1977 to 5% in 1979). The tremendous financial burden of the problem and the public release of health studies indicating severe disorders of residents at the Love Canal in 1980 were coupled with the federal government increasing recognition and jurisdiction over the problem (The Niagara Gazette, April 7, 1980-- "State to Submit Love Canal Health Records to Federal Government"-- May 21, 1980-- "Federal Government Declared Area Natural Emergency"). Table 7:2 illustrates that the federal government was releasing the highest percentage of public statements on the Love Canal among the different levels of government by 1980. There was a noticeable decline of public statements made by the State of New York between the years 1978 and 1980 (a 27% difference).

In summary, the subjective approach to the study of social problems suggests that social problem activities often consist of attempts to transform private troubles into public issues. The emergence of a social problem is contingent on the organization of group activities with reference to defining some putative condition as a problem, and asserting the need for eradicating, ameliorating or otherwise changing that condition. Hence, a major theoretical concern is to discuss and trace those individuals and/or groups who attempt to influence public policy and develop categories of social problems. The findings of this content analysis provides additional empirical support to the claim that community members and local groups (especially the LCHA) played a critical role in arousing public awareness to the Love Canal situation. Furthermore, it is suggested that not all participants involved in a social problem devote the same amount of time and effort to claim-making activities. Each plays his/her own role, as the script dictates. Social problems are not static conditions. As the problem develops and becomes a public issue, different casts of characters will emerge or be called upon to participate in the debate.

CONCLUSION

In this thesis, I have illustrated some ways interest groups socially construct social problems. Social problems and the issues associated with them are not objectively "given" whose existence may be taken from granted. Rather, social problem perceptions are independent of objective conditions. They are the activities or "work" of those who assert the existence of issues and define them as problems. It is suggested that social problems must be analyzed within a socio-political context where problem issues develop a career over time. For a social problem to be transformed from a private issue to a public issue, a complex socio-political process develops around the activities of major institutional actors; the media, officialdom, experts, and private interest groups. Often conflicts arise not only over what is to be a public issue, but also over how the problem is to be diagnosed and responded. A debate will occur over problem diagnoses between, on the one hand, government actors and agencies including policy advisors and planners and, on the other hand, the target population involved in the social problem.

Of particular theoretical interest is the institutionalization of social problems.¹ What are the implications of incorporating emerging social problems into the social structure? Is there evidence that the institutionalization of the problem contributes to the preservation of the issue and its objective conditions. If the problem is to be stabilized, it must be incorporated within the existing sociopolitical arrangements (Mauss, 1975).

The Institutionalization of Social Problems

Some students of social problems note that for a social problem to continue to exist

...an institution must be created to deal with the claims and complaints concerning the condition in question, or some existing institution must be mandated to expand its jurisdiction to include this responsibility (Spector and Kitsuse, 1977:150).

When the government and other traditional institutions take official notice of a social problem and work out a series of coping mechanisms to manage it, the social problem is institutionalized (Mauss, 1975).

It is during the institutionalization stage that social problems enjoy the greatest success: the mass media

¹ Mauss (1975) observes that much more attention needs to be devoted to the institutionalization stage of social problems. The Love Canal is presently entering this stage and future research should focus its attention to the theoretical implications of the consequences of institutionalizing social problems.

will give the issue extensive coverage, politicians begin to vie for its favor, and claim-makers become popular public figures and perhaps speakers at rallies, meetings, and other public events (Mauss, 1975). Legislation is enacted in an effort to "solve the problem" which various participants in the issue have defined. When institutions are created, the social problem can not disappear so easily. Such institutions may require the makings of laws, and also the allocation of money, personnel, and physical facilities (Spector and Kitsuse, 1973). The creation of such institutions legitimate, institutionalize, and routinize the social problem.

The establishment of an official agency to study the problem, to make recommendations for remedial action or to "control" the problem, implies that the agency becomes a focal point for bringing the issue to the attention of the general public as well as other governmental levels (Ross and Staines, 1971). The members of the agency have a vested interest in drawing attention to the problem. If they are successful, new programs and/or institutions will be created for the specific purpose of doing something about the problem. The concern with the problem thus becomes routinized into the social structure and the pressure to take action becomes constant. However, the establishment of an agency to study the problem "may cool the controversy"

(Spector and Kitsuse, 1977:149). While the original claims-making group may comment on the activities of the agency, it is the agency's report that will define the issues, summarize the facts, and put the social problem and the various participants into perspective and into their place.

Thus, as official and powerful agencies or institutions begin to take part in the social problems activity; they may lend prestige to the original protest group, but at the same time may begin to overshadow and thus reduce the significance of its activities (Spector and Kitsuse, 1977:149).

During the institutionalization stage, the responding agencies may take over the issue, make the issue their own, and neutralize or eliminate the original protest group. However, social problem activities may not end at this stage. If the agency does not take actions to satisfy the claims, new social problem activities are organized.

In the aftermath of the Love Canal, the Interagency Task Force on Hazardous Wastes was created by the New York Commissioner of Environmental Conservation in August of 1978, "as a response to the growing awareness of the danger of abandoned hazardous waste disposal sites" in the State of New York (Ginsberg, 1979:8). Specifically, the Task Force was charged with the responsibility for determining the source, nature and location of hazardous waste disposal and for recommending necessary remedial, legal, and legislative

actions. Michael Brown observes:

The State of New York has a whole office of hazardous wastes now...it never had that before the Love Canal...they now have a Love Canal Task Force. The EPA has pumped in all kinds of money...they had four people working on hazardous wastes in 1977 when I first started working on the Love Canal story. They have well over 200 now...it is a whole little agency in and of itself. They have people just working on assessment, on finding new sites out there (Interview, 07/02/80).

Once a social problem is identified, publicly recognized and incorporated into the agenda of government officials, an attempt is made to devise an effective method to determine the size and scope of the problem. Steps already have been taken to establish a list of currently active sites both in the State of New York and in the United States. In May of 1979, DEC published a catalogue of known or suspected land disposal sites (both active and inactive). The report was prepared by the joint DEC-DOH Task Force On In-Place Toxic Substances. As a result of the study, 215 waste disposal sites in Erie and Niagara counties were identified. An attempt was made to not only discover potential Love Canal sites but to evaluate the seriousness of the problem. The Task Force attempted to assess the potential impacts of these sites on public health and the environment and assigned a priority rating to each. Of the 215 waste disposal sites identified, 36 sites were given a priority I rating (definitely received large quantities of hazardous wastes and

a potential health hazard). The United States Environmental Protection Agency identified 32, 254 known sites where hazardous materials were stored or buried in the nation. Of these, it was surmised that 838 had the capability of presenting "significant imminent hazards" to public health (Brown, 1980:289-290).

Furthermore, attempts will be made to arrive at a clearer definition of the problem (i.e., how do we detect and measure the visibility of the social problem). For instance, the literature indicates that not very much is known about the health effects of chemical pollution. Alexander (1980) notes that the complexities of carcinogenicity and chronic toxicity seldom produce simple relationships of cause and effect. Some scientists have observed that the toxic dosage level in human beings often lie at the edge of scientific detectability (Alexander, 1980). Soon after the discovery of the Love Canal, Congress introduced the Muskie-Culver Bill with the purpose of making it easier for government and victims to file suit against the accused party. The Muskie-Culver Bill proposes that instead of being required to furnish direct proof that a substance caused injury, a plaintiff would have to provide evidence of statistical probability (i.e., that he/she was exposed to a known or suspected carcinogen and that the person subsequently developed cancer). Dr. David Axelrod, New York Health

Commissioner, states that government is currently attempting to develop policies for future evaluation of health risks associated with chemical pollution.

We have asked the National Academy of Sciences to completely evaluate all of the information which we have gathered in the Love Canal... and we have received confirmation from the National Academy of Sciences that it would probably undertake a major study to evaluate the mechanisms by which we chose to determine the kinds of risk associated with the proximity to the canal and the study will attempt to develop a national policy as well as to develop a structure for future evaluation of health risks (Interview, 06/05/80).

The discovery and public recognition of emerging social problems mean the revision of existing legislation or the introduction of alternative legislation or agencies to rectify the problem. The creation of a separate agency responsible for the control of New York State's hazardous waste disposal problem, introduction of new legislation, expansion of existing agency personnel, laboratory facilities and adequate funding were suggested at the Interagency Task Force on Hazardous Wastes Hearings (Ginsberg, 1979). Amendments to existing state legislation so that the government could carry out proper identification and assessment procedures were introduced. For example, prior to the 1979 legislation (Bill S 6326-A, A. 8176-A), ECL 27-0915 (which is part of the Industrial Hazardous Waste Management Act of 1978) required present generators, transporters, and disposers of hazardous wastes to furnish or provide access

to relevant records. This section, however, did not apply to past activities, nor did DEC's powers under the Industrial Hazardous Waste Management Act apply to inactive sites. Jurisdictional control over such issues were resolved by the 1979 legislation which provides for access to records concerning past activities and authorizes the Commissioner of Environmental Conservation to issue subpoenas requiring the production of such records. The 1979 legislation mandates that reports be furnished to DEC, containing information on current and past waste disposal activities so that DEC can render an annual report to the legislature and the governor identifying hazardous waste disposal sites. Other amendments were introduced to facilitate the discovery, assessment, and control of potentially dangerous waste disposal sites (Ginsberg, 1979).

Since the Love Canal was the first publicly recognized hazardous waste disposal site, (The Niagara Gazette, August 12, 1978-- "Love Canal situation is a first in state official's view), no guidelines existed as to what actions government should have followed. "Decisions at the Love Canal were necessarily made on an ad hoc basis" (Ginsberg, 1979:50). The Governor of New York, Hugh Carey, notes the jurisdiction difficulties and disputes that occurs between government agencies when a new social problem emerges into their agencies.

Up to now, the DEC has been addressing this on an ad hoc basis with separate air, water, and solid waste management programs. This

piecemeal approach is not workable. I accordingly ask your support to establish an expanded office of toxic substances within the Department of Environmental Conservation, to work with the Department of Health and other agencies in a coordinated effort against hazardous wastes and to spearhead federal-state-local cooperation agreements in this area of critical concern (Grand Jury Report, 1979:65).

Government soon realized that policies must be developed to guide its actions in future situations where hazardous waste disposal sites threaten the safety of residents and the environment.

Such a policy must provide answers to those questions which were confronted for the first time at the Love Canal: (1) What are the criteria for evacuation of residential areas? ...The state should arrive at some standard for affixing the label "contaminated" to a group of residence. (2) Who is to be evacuated? (3) How should relocation, when necessary, take place? A procedure should be developed which is not unduly disruptive to the employment or education of those who are relocated. (4) What shall be the state's policy with respect to the ownership and disposition of residences which become unsafe due to contamination? The state must decide whether the financial risk is to be borne solely by the homeowners, who may be left to an uncertain and expensive remedy in the courts, or whether the state will assume all or some portion of the losses. If homes are purchased with public funds, as they were at the Love Canal, the point at which the line will be drawn should be based on specific criteria. When dealing with property values, perhaps it is neither possible nor desirable to differentiate between homes which are heavily contaminated and those which are moderately affected. As a practical matter, any residence which is considered within the endangered area will be greatly diminished in market value, if not rendered worthless. Existing homeowners' insurance policies do not

cover the risk. Even if a fund is created to compensate residents of a contaminated area for their property losses, the definition of "contaminated area" will have to be redefined (Ginsberg, 1979:50-51).

The implementation of such a guideline institutionalizes the problem. It also provides an agreed upon boundary and definition as to what the social problem will constitute. The creation of specific measures as to how experts are to determine the magnitude of the situation indicates that what composes a social problem is based on the guidelines established to define the boundaries of the issue. Social problems are not derived from objectively given measures but from the interpretations given to the objective issues. Nancy Dubner of the New York Department of Transportation states that the reason government did not initially recognize the Love Canal as a social problem was because the issue failed to meet existing legislative guidelines.

...one of the laws that we had a great deal of problem with was the federal emergency and disaster legislation. You see Love Canal did not meet the guidelines of a disaster... a disaster by their terms was a one time, charismatic nature caused event like a flood, hurricane, or blizzard...that kind of thing... Love Canal was a disaster in slow motion and we did not know the parameters of it in time or even physically. When the State of New York moved in and we began our remedial action there and it was with the idea that most of this would be charged to the federal government under those laws. We did the work and then we sent the federal government the bill, which is how you handle national disasters...those are the regulations. When we did that, we were turned down, all but 10

percent of those requests...but you know here were laws that clearly have to be brought into the twentieth century reality ...in terms of our emergency management act. Under the existing regulations, government did not have the capacity to act on the Love Canal...and Love Canal certainly will affect governmental decision on policies concerning chemical waste disposal.

William Wilcox, head of the Federal Disaster Assistance Administration further notes:

...this isn't a flood or a tornado. It's unique. I think it will take a somewhat creative interpretation of the disaster legislation to acknowledge it (The New York Times, August 6, 1978).

Definitions play a critical role in the development of a social problem. New York State Health Commissioner, Dr. David Axelrod, highlights the importance of defining social problems.

The reason that Love Canal never became a major public issue prior to 1978 was that the State Health Department was never brought into an awareness of the difficulties that existed at the Love Canal. While there has been some local awareness and perhaps some federal awareness, the kinds of concern that the individuals had in the area was never brought to the attention of the New York Department of Health. We first became aware of the situation as a result of a request by DEC for analysis of certain samples that were taken from that area. These samples were taken primarily with an eye toward dealing with some of the environmental situations, not public health situations. When I sat down with the officials from DEC concerning the assessment of the laboratory needs, it became clear that what we were dealing with was not an environmental problem but a

potential health problem...and that we would look into the situation and determine whether or not there was in fact an imminent public health hazard; which we subsequently did...and it was only after it was determined that this was a health issue that the Love Canal became a public issue (Interview, 06/05/80).

Political systems are characterized by fragmentation of responsibility. What agency will respond to the problem situation depends on how the condition is defined and classified. The definition of the condition will dictate not only the scope and nature of the problem but establish what agency will be given jurisdiction over the issue.

Immediately following the Love Canal, government has enacted measures to prevent the creation of future Love Canals by passing strict laws regulating the disposal of toxic substances. The institutionalization of the hazardous waste disposal problem will guarantee the discovery of other "Love Canals" (The Montreal Gazette, "Another Chemical Dump Worst Than Love Canal Discovered," December 28, 1978). Some respondents state that the Love Canal will be used as a comparison case for similar toxic waste dumps (The Niagara Gazette, August 4, 1979-- "Dumps are national problem in year in nation, Love Canal cited"). Nancy Dubner of DOT observes:

The Love Canal is a model in that it has made government and the public aware to a far greater degree than any other specific instances of a need to devise

a machinery of rules, laws, regulations that give government the tools to do something about problems of this kind (Interview, 08/05/80).

Robert Whalen, former New York Commissioner of Health, warned in his report:

For those responsible for containing the problem and for government leaders in New York State and throughout the nation, Love Canal represents what may very well be the first of a new and sinister breed of environmental disasters (Whalen, 1978:2).

Now that the hazardous waste disposal problem is slowly becoming integrated in the arena of public policy, we can expect the discovery and existence of more Love Canal problems (The Niagara Gazette, August 9, 1978-- "Toxic disasters loom nationwide"). Michael Brown explains:

Waste pollution in general is definitely going to become a big issue...probably mid-way through this decade...it is going to take a while yet because these revelations are coming out consistently but slowly but now you have a whole town there that is upset...you have places like California, Louisiana, New Orleans that are upset. Environmental agencies coming out with statements about the dangers of these toxic chemicals on the environment and public health...but it still has not hit them yet that a lot of cancer is caused by the environment. When it does hit them and it is going to take a lot more writing or consciousness raising and public statements by government officials to support these claims...it is going to be a real big social problem and you'll have people in uproars. You have water and air pollution which people bitched about in the 1970's...and got certain things done about it and now you've got

ground pollution which is the third and new major category of pollution...as big as air and water pollution and of course it affects both of the other two. Public officials are coming out with statements that it is the worst environmental problem facing the country today...that has been said by a high ranking EPA official, he told me, his name is Douglas Costle (Interview, 07/02/80).

In summary, the theoretical focus is to account for the emergence, maintenance and history of claims-making activities and responding institutional activities. Such a theoretical approach would seek to explain how definitions and assertions are constructed, the processes by which institutions act upon claims-making activities, and how institutional responses do or do not produce socially legitimate categories of social problems. Social problems, within this theoretical formulation, are not perceived as static conditions, but as a sequence of events. This sequence of events will vary since one can assume that every social problem has its own unique history (Spector and Kitsuse, 1973). However, a major task for the development of a distinctive subject matter for the sociology of social problems is to develop common elements, components, stages, or processes among the histories of various social problems. That is, to determine if social problems have a common "natural history" (Blumer, 1971), and, if so, to describe its stages and the contingencies of its development. Detailed analyses of individual cases will shed light on how future cases should

be analyzed and the use of the natural history concept will produce a rich literature on how definitions of social problems are socially and politically constructed.

Future studies should focus their research attention to the end of the life cycle of a social problem, to what has been referred to as the "fragmentation" or "demise" of social problems (Mauss, 1975). What happens to social problem activities once the issue has been institutionalized into the social structure? Specific attention should be paid to the economic and political forces that shape social policy and the development of social problems.



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254

APPENDIX A

Letter Number 1

March 10, 1980

Mr. Edward Joseph
Public Relations
Hooker Chemicals and Plastic
Corporation
345 Third Street
Niagara Falls, New York
14302

Dear Mr. Joseph:

I am a graduate student in the Sociology Department at McMaster University. Dr. Jack Haas and I are interested in generating an historical analysis of how public figures and residents living in Niagara Falls, New York came to define the "Love Canal" as a public issue. Our research data is collected by interviewing key public figures who are involved in the Love Canal situation.

Social issues like the Love Canal situation often contain a wide tangent of viewpoints. In the hope of avoiding inaccurate and/or unjustified conclusions, we would like to include in our sample an accurate representation of all of the major viewpoints present in this case. Needless to say, listening to Hooker's point of view is very important to us because we are planning on publishing a book on the subject and in writing an article for a sociological journal. We are requesting that we include the Hooker Chemicals and Plastics Corporation in our sample. Dr. Malcolm Spector of the Sociology Department at McGill University in Montreal is also involved with this research project.

Our research has the potential to make a significant contribution to the sociology of social problems and to widen our understanding of "environmental hazards." The individuals we have contacted so far have expressed great

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255

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interest in participating in our research and we hope that your office will be just as eager and co-operative.

We are looking forward to your reply and in establishing a meeting at your convenient time and place.

Sincerely yours,

Vic M. Minichiello

VMM/cd.



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256

Letter Number 2

April 28, 1980

Mr. Edward Joseph
Public Relations
Hooker Chemicals and Plastics
Corporation
345 Third Street
Niagara Falls, New York
14302

Dear Mr. Joseph:

Regarding my letter of March 10, 1980, would you kindly inform us of your decision of whether or not you would be interested in participating in our research project. Needless to say, listening to Hooker's point of view is very important to us because we are planning on publishing a book on the subject and in writing an article for a sociological journal.

I am looking forward to your reply in the near future. I can be reached at area code 416-525-9140 EXT. 4481.

Sincerely yours,

Vic M. Minichiello

VMM/cd.



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257

Letter Number 3

June 17, 1980

Mr. Edward Joseph
Public Relations
Hooker Chemicals and Plastics
Corporation
345 Third Street
Niagara Falls, New York
14302

Dear Mr. Joseph:

Thank you for your letter of May 6, 1980. The eight issues of "Factline" were very much appreciated.

After having interviewed the various individuals and agencies involved with the Love Canal situation, we have come to the conclusion that listening to Hooker's point of view is crucial to our research. We are hoping to avoid an inaccurate representation of Hooker's position in the Love Canal situation.

When social scientists conduct research in a political situation we may be accused of being biased since the spokesman of the many involved parties will be sensitive to the implications of our work. They may accuse social scientists not of collecting false data, but of not collecting all the data relevant to the problem. The point we would like to make is that if this accusation is made it may well be that some interest parties did not make their "perspective" available to the researcher. Hence, if it is true that no research can be done that is not biased in one or another way, it may well be that the responsibility of the accusation of conducting a biased research does not solely rest on the conscience of the researcher but also on the conscience of those who participate in the political situation.

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258

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We are aware that you are involved in litigation which constrains Hooker's ability to communicate and discuss specifics concerning the Love Canal, but we are hoping that some mutual agreement can be arranged.

If a reply is not received by the second week of July, 1980, we will conclude that you have decided not to participate in our research project and we will include this information in our methodological section.

I am looking forward to your reply in the near future. I can be reached at area code 416-525-9140 EXT. 4481 or by mail. Best wishes.

Sincerely,

Vic M. Minichiello

VMM/cd.

APPENDIX B

The Interview Schedule

The interview schedule provided a working tool to initiate and generate data on relevant research categories. Not all of the questions that appear in this appendix were administered to each respondent. When the interviewer judged that a question was inappropriate to ask to a respondent, it was not administered. From the interview, initiated many spontaneous questions.

Data was collected on the following categories: awareness of the Love Canal situation being problematic (Questions 1, 2, 3); how and through what channel(s) that awareness emerged (Question 4); role played by particular individuals and/or agencies in the development of the Love Canal as a social problem (Questions 5, 6, 7, 8, 9, 10, 11); the individuals' and/or agencies' perceptions of the Love Canal as a social problem (Question 12, 13, 14); and general social, economic and political information about the Love Canal (Question 15, 16). Although the interview schedule provided a guideline to work with, the interview situation was not restricted to the schedule.

The Questions

1. Why did the Love Canal become a major public issue in 1978 and not before that?
2. Was the chemical situation and the health problems at the Love Canal causing concern to residents and/or government agencies in the 1960's and early 1970's?
3. When was (i.e., the City of Niagara Falls) first made aware of the Love Canal situation?
4. Who brought the Love Canal situation to your attention?
5. Why was the assistance of (i.e., the New York Department of Health) sought? Please be specific.
6. Is the rise and fall of the Love Canal situation as a public issue related to community pressure, specifically the Love Canal Homeowners Association?
7. What role has the Love Canal Homeowners Association played in bringing the issue to the attention of government?
8. What role has the media played in the Love Canal issue?
9. How co-operative has Hooker Chemicals and Plastics Corporation been in answering any of your questions relating to the Love Canal situation?
10. Has Hooker influenced how government has responded to the Love Canal?
11. Could you tell me in a more detailed description something about your organization, when was it formed, why was it formed, how it operates, what are your goals, and so on?
12. Some people claim that the health problems at the Love Canal are very serious, while others claim that they are not very serious or that there are no health

problems at the Love Canal. Do you think that there is a health problem at the Love Canal? And, if so, how serious is it?

13. Some people have said that the Love Canal is a model case for future types of similar pollution problems. Do you think this will be the case? Explain.
14. What accounts for the discrepancies between the various studies conducted at the Love Canal (i.e., Dr. Beverly Paigen's study and the State of New York--between the conclusions drawn by the State of New York and the federal government)?
15. Could you tell me something about the history of the Love Canal?
16. Dr. Beverly Paigen, Lois Gibbs, and Michael Brown have stated that government's response to the Love Canal has been influenced by political and financial factors rather than by scientific data or the needs of the residents. For instance, Michael Brown claims that "city officials had some awareness of the problem in 1976 or earlier but were trying to conceal the findings until they could agree among themselves on how to present it" and they feared distressing Hooker Chemicals and Plastics Corporation. What is your opinion to these statements?

BIBLIOGRAPHY

- Albrecht, Stan L. (1972) "Environmental social movements and counter-movements: An overview and an illustration." *Journal of Voluntary Action* 1: 2-11.
- (1976) "Legacy of the environmental movement." *Environment and Behavior* 8: 147-167.
- Alexander, Tom (1980) "The hazardous-waste nightmare." *Fortune* 21: 52-58.
- Alpert, Harry (1952) "Some observations on the sociology of sampling." *Social Forces* 31: 30-31.
- Antonio, Robert and George Ritzer (1975) *Social Problems: Values and Interests in Conflict*. Boston: Allyn and Brown.
- Bain, Read (1935) "Our schizoid culture." *Sociology and Social Research* 19: 266-276.
- Bartell, Ted and Arthur St. George (1974) "A trend analysis of environmentalists' organizational commitment, tactic advocacy, and perceptions of government." *Journal of Voluntary Action Research* 3: 41-46.
- Becker, Howard S. (1956) "Field work among Scottish shepherds and German peasants." *Social Forces* 35: 10-15.
- (1963) *Outsiders: Studies in the Sociology of Deviance*. New York: The Free Press.
- (1964) "Problems in the publication of field studies." In A.J. Vidich et. al., (eds.), *Reflections on Community Studies*. New York: Wiley.

- (1966) *Social Problems: A Modern Approach*.
New York: Wiley and Sons, Inc.
- (1970) *Sociological Work: Methods and Substance*.
Chicago: Aldine.
- and Blanche Geer (1970) "Participant observation
and interviewing: a comparison." In William J.
Filstead (ed.), *Qualitative Methodology*. Chicago:
Markham Publishing Co.
- and I.L. Horowitz (1972) "Radical politics and
sociological research; observations on methodology and
research." *American Journal of Sociology* 78: 48-66.
- Berger, Peter L., and Thomas Luckmann (1967) *The Social
Construction of Reality*. New York: Doubleday Anchor
Books.
- Blumer, Herbert (1969) *Symbolic Interactionism: Perspectives
and Method*. Englewood Cliffs, N.J.: Prentice Hall.
- (1971) "Social problems as collective behavior."
Social Problems 8:298-306.
- Bogdon, R. and S. Taylor (1975) *Introduction to Qualitative
Research Methods*. New York: John Wiley.
- Bowman, James S. (1975) "The ecology movement: a viewpoint."
The International Journal of Environmental Studies
8: 91-97.
- Broadhead, Robert S. and Ray C. Rist (1976) "Gatekeepers and
the social control of science." *Social Problems* 23: 325-
336.

- Brown, Michael (1979) "Love Canal and the poisoning of America." *The Atlantic* (December) 244: 33-47.
- (1980) *Laying Waste: The Poisoning of America by Toxic Chemicals*. New York: Pantheon Books.
- Buttel, Frederick H. and William L. Flinn (1974) "The structure of support for the environmental movement." *Rural Sociology* 39: 56-69.
- (1976) "Environmental politics: the structuring of partisan and ideological cleavages in mass environmental attitudes." *The Sociological Quarterly* 17: 477-490.
- Caplow, Theodore (1962) "The dynamics of information interviewing." *American Journal of Sociology* 56: 165-171.
- Cartwright, Paul (1979) *Sociology of Expertise: Epidemiologists and Asbestos*. Master's Thesis: McGill University.
- Catton, William R. Jr., and Riley E. Dunlap (1978) "Environmental sociology: a new paradigm." *The American Sociologist* 13: 41-49.
- Christie, Robert M. (1976) "Comment on conflict methodology: a protagonist position." *Sociological Quarterly* 17: 513-519.
- Cohen, Stanley and Jock Young (eds.) (1973) *The Manufacture of News*. Beverly Hills, California: Sage Publications.
- Colvard, R. (1967) "Interaction and identification in reporting field research: a critical reconsideration of protective procedures." In G. Sjoberg (ed.), *Ethics, Politics, and Social Research*. Cambridge, Mass.: Schenkman.

- Constantini, Edmond and Kenneth Honf (1972) "Environmental concern and Lake Tahoe: a study of elite perceptions, backgrounds and attitudes." *Environment and Behavior*. 4: 209-242.
- Crenson, Matthew A. (1971) *The Un-Politics of Air Pollution*. Baltimore, Maryland: The Johns Hopkins Press.
- Davies III, J. Clarence and Barbara S. Davies (1975) *The Politics of Pollution*. Indianapolis, Indiana: The Bobbs-Merrill Company (second edition).
- DeFleur, Melvin L. and Sandra Ball-Rokeach (1975) *Theories of Mass Communication*. Third Edition. New York: David McKay Co., Inc.
- Devall, W.B. (1970) "Conservation: an upper-middle class social movement: a replication." *Journal of Leisure Research* 2: 123-126.
- Dexter, Lewis A. (1970) *Elite and Specialized Interviewing*. Evanston: Northwestern University.
- Dillman, Don A. and James E. Christenson (1972) "The public value for pollution control." pp. 237-256 in William R. Burch Jr., et. al., *Social Behavior, Natural Resources and the Environment*. New York: Harper and Row.
- Downs, Anthony (1972) "Up and down with ecology--the 'Issue-Attention Cycle'." *The Public Interest* 28: 38-50.
- Dunlap, Riley E. and Don A. Dillman (1976) "Decline in public support for environmental protection: Evidence from a 1970-1974 panel study." *Rural Sociology* 41: 382-390.
- Durkheim, Emile (1938) *Rules of Sociological Method*. New York: The Free Press.

- (1951) *Suicide: A Study in Sociology*. New York:
The Free Press.
- Ebbin, Steven and Raphael Kasper (1974) *Citizen Groups and
the Nuclear Power Controversy*. Cambridge: MIT Press.
- Engler, Robert (1961) *The Politics of Oil*. New York:
MacMillan.
- Epstein, J. (1973) "Can we afford sliced eggplant?" *The
New York Review* 15: 13-16.
- Erikson, Kait (1966) *Wayward Puritans*. New York: John
Wiley & Sons.
- Erskine, Hazel (1972) "The polls: pollution and its cost."
Public Opinion Quarterly 36: 120-135.
- Ezrahi Y. (1971) "The political resources of American
science." *Science Studies* 1: 117-133.
- Faich, Ronald G. and Richard P. Gale (1971) "The environ-
mental movement: from recreation to politics." *Pacific
Sociological Review* 14: 270-287.
- Foss, Phillip O. (1972) *Politics and Ecology*. Belmont,
California: Duxbury.
- Frank, L.K. (1925) "Social problems." *American Journal of
Sociology* 30: 462-473.
- Fred C. Hart Associates, Inc. (1978) *Draft Report: Analysis
of a Ground Water Contamination Incident in Niagara
Falls, New York*. July contract no. 68-01-3897.
- Fuller, Richard and Richard Myers (1941a) "Some aspects of
a theory of social problems." *American Sociological
Review* 6: 24-32.

- (1941b) "The natural history of a social problem."
American Sociological Review 6: 320-328.
- Gale, Richard P. (1972) "From sit-in to hike-in: a comparison
of the civil rights and environmental movements."
pp. 280-305 in W.R. Burch Jr., et. al., (eds.), Social
Behavior, Natural Resources and the Environment. New
York: Harper and Row.
- Gallagher, Dorothy (1979) "The tragedy of Love Canal."
Redbook (April) 152: 42+.
- Galliher, John F. (1973) "The protection of human subjects:
a reexamination of the professional code of ethics."
The American Sociologist 8: 93-100.
- (1980) "Social scientists' ethical responsibilities
to superordinates: looking upward meekly." Social
Problems 27: 298-308.
- Ginsberg, William R. (1979) Interagency Task Force on
Hazardous Wastes. State of New York Department of
Environmental Conservation.
- Glaser, B., and A. Strauss (1967) The Discovery of Grounded
Theory. Chicago: Aldine.
- Grand Jury Report for Investigations into Organized Criminal
Activities of the County of Rockland (1979) State of
New York County Court.
- Greenberg, Daniel S. (1967) The Politics of Pure Science.
New York: New American Library.
- Haas, Jack and William Shaffir (1980) "Fieldworkers' mistakes
at work: problems in maintaining research and researcher
bargains." In W. Shaffir et. al., (eds.), Fieldwork

- Experience: Qualitative Approaches to Social Research.
New York: St.Martin's Press.
- Habenstein, R. (1970) Pathways to Data: Field Methods for Studying Ongoing Social Organization. Chicago: Aldine.
- Haberer, Joseph (1969) Politics and the Community of Science.
New York: Van Nostrand Reinhold.
- Hall, Peter and J.P. Hewitt (1970) "The quasi-theory of communication and the management of dissent." Social Problems 18:17-27.
- Hanson, Robert C. (1958) "Evidence and procedure characteristics of 'reliable' propositions in Social Science." American Journal of Sociology 63: 357-363.
- Harrington, Walter (1974) "The United States environmental movement: a discussion of its historical emergence, causes, characteristics and consequences." Unpublished Master's Thesis, University of Missouri, Columbia.
- Harry, Joseph, Richard P. Gale, and John C. Hendee (1969) "Conservation: an upper-middle class social movement." Journal of Leisure Research 1: 246-254.
- Hendee, John C., Richard P. Gale and Joseph Harry (1969) "Conservation, politics and democracy." Journal of Soil and Water Conservation 24: 212-215.
- Hewitt, John P. and Peter Hall (1973) "Social problems, problematic situations and quasi-theories." American Sociological Review 38: 367-375.
- (1975) "The environment as social problem: some social consequences of collective definitions." Paper presented at the Annual Meeting of the Society for the

Study of Social Problems, San Francisco.

- Hill, Gladwin (1972) "The politics of air pollution: public interest and pressure groups." pp. 120-29 in Phillip O. Foss (ed.), Politics and Ecology. Belmont, California: Duxbury.
- Hoffmann, Joan E. (1980) "Problems of access in the study of social elites and board of directors." In W. Shaffir et. al., (eds.), Fieldwork Experience: Qualitative Approaches to Social Research. New York: St. Martin's Press.
- Hornback, K.E. (1974) Orbits of Opinion: The Role of Age in the Environmental Movement's Attentive Public, 1968-1972. Unpublished Doctoral dissertation, Michigan State University.
- Horowitz, Irving Louis (1972) "The environmental cleavage: social ecology versus political economy." Social Theory and Practice 2: 125-134.
- Hubbard, Jeffrey C. (1973) Mass Communication and Social Problems. Unpublished Ph.D. dissertation, Washington State University.
- , Melvin DeFleur and Lois DeFleur (1975) "Mass media influences on public conceptions of social problems." Social Problems 23: 22-34.
- Hughes, Everett C. (1971) The Sociological Eye. Chicago: Aldine.
- Jones, Robert A. (1970) "Fratricide in the Sierra Club." pp. 284-290 in Walter Anderson (ed.), Politics and Environment: A Reader in Ecological Crisis. Pacific

Palisades, California.

Killian, Lewis (1964). "Social movements." In R.E.L. Faris (ed.), Handbook of Modern Sociology. Chicago: Rand McNally.

King, Lauristan and Philip Melanson (1972) "Knowledge and politics." Public Policy 20: 82-101.

Kitsuse, John I. and Malcolm Spector (1973) "Towards a Sociology of social problems: social conditions, value-judgments and social problems." Social Problems 20: 407-419.

----- (1975) "Social problems and deviance: some parallel issues." Social Problems 22: 584-594.

Koenig, Daniel J. (1975) "Additional research on environmental activism." Environment and Behavior 7: 472-485.

Lauer, Robert H. (1972) "Social movements: an interactionist analysis." The Sociological Quarterly 13: 315-328.

----- (1976) "Defining social problems: public and professional perspectives." Social Problems 24: 122-130.

Lemert, Edwin (1951) "Is there a natural history of social problems?" American Sociological Review 16: 217-223.

Liazos, Alexander (1972) "The poverty of the sociology of deviance: nuts, sluts and perverts." Social Problems 20:103-120.

Lipsey, Mark W. (1977) "Attitudes toward the environment and pollution." Pp. 360-379 in S. Oskamp (ed.), Attitudes and Opinions. Englewood Cliffs, N.J.: Prentice Hall.

Lowenthal, David (1970) "The environmental crusade: ideals and realities." Landscape Architecture 60: 290-296.

- Lowry, Ritchie P. (1971) "Toward a radical view of the environmental crisis." *Environmental Affairs* 1: 350-359.
- Ludwig, John H., George B. Morgan and Thomas B. McMullen (1970) "Trends in urban air quality." *Transactions, American Geophysical Union* 51: 468-475.
- Maloney, John C. and Lynn Slovosky (1971) "The pollution issue: a survey of editorial judgments." Pp. 64-78 in Leslie Roos, Jr. (ed.), *The Politics of Ecosuicide*. New York: Holt, Rinehart and Winston.
- Manis, Jerome G. (1976) *Analyzing Social Problems*. New York: Praeger Publishers.
- Mauss, Armand L. (1975) *Social Problems as Social Movements*. Philadelphia: J.B. Lippincott Company.
- McCloskey, Michael (1972) "Wilderness movement at the crossroads, 1945-1970." *Pacific Historical Review* 41: 346-361.
- McEvoy, James III (1970) "The social, psychological and value characteristics of conservationists and preservationists in the United States: a review of the literature." Unpublished paper, Department of Sociology, University of California: Davis.
- (1972) "The American concern with environment." pp. 214-236 in William R. Burch, Jr., et. al., (eds.) *Social Behavior, Natural Resources, and the Environment*. New York: Harper & Row.
- Merton, Robert K. (1971) "Epilogue: social problems and sociological theory." pp. 793-846 in Merton and Nisbet (eds.), *Contemporary Social Problems*. New York.

- Mills, C. Wright (1956) *The Power Elite*. New York: Oxford University Press.
- (1959) *The Sociological Imagination*. New York: Oxford University Press.
- Molotch, Harvey (1970) "Oil in Santa Barbara and power in America." *Sociological Inquiry* 40: 131-144.
- and Marily Lester (1975) "Accidental news: the great oil spill as local occurrence and national event." *American Journal of Sociology* 81: 235-260.
- Morrison, Denton E., Kenneth E. Hornback and W. Keith Warner (1972) "The environmental movement: some preliminary observations and predictions." pp.259-279 in William R. Burch, Jr., et. al., (eds.), *Social Behavior, Natural Resources, and the Environment*. New York: Harper and Row.
- (1974) *Environment: A Bibliography of Social Science and Related Literature*. Washington, D.C.: U.S. Government Printing Office.
- Munton, Donald and Linda Brady (1970) "American public opinion and environmental pollution." Unpublished Technical Report, Behavioral Sciences Laboratory, Department of Political Science, Ohio State University, Columbus.
- Nader, Laura (1969) "Up the Anthropologist-Perspectives gained from studying up." In Dell Hymes (ed.), *Reinventing Anthropology*. New York: Random House.
- Nash, Roderick (1973) *Wilderness and the American Mind*. New Haven, Connecticut: Yale University Press.
- Nelkin, Dorothy (1971) "Scientists in an environmental controversy." *Science Studies* 1: 245-261.

- (1974a) "The role of experts in a nuclear citing controversy." Science and Public Affairs 30: 29-36.
- (1974b) Jetport: The Boston Airport Controversy. New Brunswick, N.J.: Transaction Press.
- (1977) "Scientists and professional responsibility" the experience of American sociologists." Social Studies of Science 7: 75-95.
- Neuhaus, R. (1971) In Defense of People: Ecology and the Seduction of Radicalism. New York: MacMillan.
- Newson, John and Elizabeth Newson (1976) "Parental Roles and social contexts." pp. 22-48 in Morton Shipman (ed.), The Organization and Impact of Social Research. London: Routledge and Kegan Paul.
- Nicolaus, Martin (1969) "Remarks at ASA convention." The American Sociologist 4: 154-156.
- Polsby, N.W. (1972) "Review of N.A. Crenson's: The unpolitics of air pollution." Contemporary Sociology 2: 99-101.
- Quigg, P.W. (1973) World Directory of Environmental Education Programs. New York: Bowker.
- Rainwater, Lee and David J. Pittman (1967) "Ethical problems in studying a politically sensitive and deviant community." Social Problems 14: 357-366.
- Rainwater, Lee (1974) Social Problems and Public Policy: Deviance and Liberty. Aldine Publishing Company: Chicago.
- Reasons, Charles (1974) "The politics of drugs: an inquiry in the sociology of social problems." The Sociological Quarterly 15: 381-404.

- Reichardt, Charles S. and Thomas Cook (1979) "Beyond qualitative versus quantitative methods." pp. 7-32 in T. Cook and Reichardt (eds.), Qualitative and Quantitative Methods in Evaluation Research. Beverly Hills: Sage.
- Reissman, Leonard (1972) "The solution cycle of social problems." The American Sociologist 7: 7-9.
- Rist, Ray C. (1975) "Ethnographic techniques and the study of an urban school." Urban Education 10: 86-108.
- Rock, Paul (1973) "News as eternal recurrence." Pp. 73-78 in Cohen and Young (eds.), The Manufacture of News. Beverly Hills, California: Sage.
- Rose, Vicki McNickle (1979) "Rape as a social problem: a by-product of the feminist movement." Social Problems 25: 75-89.
- Rosenbaum, Walter A. (1973) The politics of Environmental Concern. Praeger Publishers, New York.
- (1977) The Politics of Environmental Concern. Praeger Publishers, New York. Second edition.
- Ross, Robert and Graham C. Staines (1971) "The politics of analyzing social problems." Social Problems 20: 18-40.
- Sandback, F. (1978) "A further look at the environment as a political issue." The International Journal of Environmental Studies 12: 99-110.
- Schnaiberg, Allan (1977) "Politics, participation and Pollution: the environmental movement." pp. 464-480 in J. Walton and D. Carns (eds.), Cities in Change. Boston: Allyn and Bacon. Second edition.

- Schoenfeld, A. Clay, Robert F. Meier and Robert J. Griffin
(1979) "Constructing a social problem: the press and the environment." *Social Problems* 27: 38-61.
- Sewell, W.R. and Harold D. Foster (1971) "Environmental revival: promise and performance." *Environment and Behavior* 3: 123-134.
- Shaffir, William B., Robert A. Stebbins and Allan Turowetz
(1980) *Fieldwork Experience: Qualitative Approaches to Social Research*. New York: St.Martin's Press.
- Sharma, Navin C., Joseph E. Kivlin and Frederick C. Fliegel
(1975) "Environmental pollution: is there enough public concern to lead to action?" *Environment and Behavior* 7: 455-471.
- Sills, David L. (1975) "The environmental movement and its critics." *Human Ecology* 3: 1-41.
- Sjoberg, Gideon and Paula Jean Miller (1973) "Social research and bureaucracy: limitations and opportunity." *Social Problems* 21: 129-143.
- Smigel, Erwin (1959) "Interviewing a legal elite: the Wall Street lawyer." *The American Journal of Sociology* 64:159-164.
- Smith, J.N. (1974) *Environmental Quality and Social Justice in Urban America*. Washington, D.C. Conservation Foundation.
- Spector, Malcolm and John I. Kitsuse (1973) "Social problems: a re-formulation." *Social Problems* 21: 145-159.
- (1977) *Constructing Social Problems*. California: Cummings Publishing Company.

Spector, Malcolm (1977) "Legitimizing homosexuality."
Society 14: 52-56.

----- (1980) "Learning to study public figures." In
W. Shaffir et. al., (ed.) Fieldwork Experience: Quali-
tative Approaches to Social Research. New York:
St.Martin's Press.

Spencer, Gary (1973) "Methodological issues in the study
of bureaucratic elites: a case study of West Point."
Social Problems 21: 90-102.

Sprout, Harold (1971) "The environmental crisis in the con-
text of American politics." pp. 41-50 in Leslie Roos,
Jr. (ed.), The Politics of Ecosuicide. New York: Holt,
Rinehart and Winston.

Swearinger, John C. (1972) "Public and government concern
over the environment." in P. Foss (ed.), Politics and
Ecology. Belmont, California: Duxbury.

Tallman, Irving (1976) Passion, Action and Politics. San
Francisco: W.H. Freeman and Company.

Thorne, Barrie (1980) "You still takin' notes? Fieldwork
and Problems of Informed Consent." Social Problems.
27: 284-297.

Tichenor, P.J., S.A. Donoghue, C.N. Olien and J.K. Bowers
(1973) "Environment and public opinion." pp. 271-275
in Clay Schoenfeld (ed.), Interpreting Environmental
Issues. Madison, Wis.: DERS.

Trop, Cecile and Leslie L. Roos, Jr. (1971) "Public opinion
and the environment." pp. 52-63 in Leslie Roos, Jr.,

- (ed.), *The Politics of Ecosuicide*. New York: Holt, Rinehart and Winston.
- Trow, Martin (1970) "Comment on participant observation and interviewing: a comparison." In William J. Filstead (ed.), *Qualitative Methodology*. Chicago: Markham Publishing Company.
- Tunstall, James (1970) *Media Sociology*. Urbana: University of Illinois Press.
- Useem, Michael (1979) "Studying the Corporation and the Corporate Elite". *The American Sociologist* 14:97-107.
- Vienna, Nicholas et. al., (1980) *Adverse Pregnancy Outcomes in the Love Canal Area*. New York: New York State Health Department.
- Waller, Willard (1936) "Social problems and the mores." *American Sociological Review* 1: 922-934.
- Wax, Murray L. (1980) "Paradoxes of Consent to the Practice of Fieldwork." *Social Problems* 27: 272-283.
- Whalen, Robert P. (1978) *Love Canal: Public Health Time Bomb. A Special Report to the Governor and Legislature*. New York: The Office of Public Health.
- Zelditch, Morris, Jr. (1970) "Some methodological problems of field studies." In William Filstead (ed.), *Qualitative Methodology*. Chicago: Markham.
- Zinger, C.L., R. Dalsemer and H. Mugargle (1973) *Environmental Volunteers in America: Summary*. Washington, D.C.: National Center for Voluntary Action.

Zwerdling, D. (1973) "Poverty and pollution." The Progressive.
37: 25-29.