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A COMPARATIVE ANALYSIS OF EMERGENT GROUP BEHAVIOR IN DISASTER: A LOOK AT THE UNITED STATES AND SWEDEN

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A COMPARATIVE ANALYSIS OF EMERGENT GROUP BEHAVIOR
IN DISASTER: A LOOK AT THE UNITED STATES AND SWEDEN

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
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The Ohio State University
1983

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ACKNOWLEDGEMENTS

As I was finishing this dissertation and started seriously thinking about putting together the acknowledgements, it became quite clear to me that a dissertation is not an individual effort - it is a social creation - perhaps even a sociological phenomenon. If it were not for some people, this dissertation never would have reached the stage that it is today. The final product would be much more shallow or imprecise. If it were not for others, I may never would have completed this, or at the very least, I would be writing for at least a year or two, or three. There are many people that need to be acknowledged - I only hope that I did not forget anyone. The order in people are mentioned has nothing to do with order of importance, but rather how various categories fit together and how other acknowledgements are ordered. A sincerely feel that in the future if anybody would want to cite this, it would be proper to add an "et al".

As another note, this dissertation follows a long line from the Disaster Research Center (DRC) with Tom Drabek's being the first produced about twenty years ago. In a way, this dissertation represents a transition of sorts for the DRC and its dissertations, as the center itself has already moved to the University of Delaware. I hope that this dissertation follows in the tradition of the ones before, and is followed by many more at the University of Delaware.

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Without her help, understanding, and caring, I would still be floundering about a pre-
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while watching a plane fly overhead on its final approach to Port Columbus. Thanks.
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INTRODUCTION

Disasters occur throughout the world on almost a daily basis. Human history, from ancient myths to present media reports throughout the world, reflect people's concerns, interests, and behavior in disaster situations. Yet, the scientific study of social behavior in disaster is a recent endeavor by social scientists and sociologists. To date, very few statements can be made regarding how people in different societies respond to a disaster and what conditions may be responsible for similar or different behavior.

In this study, which uses data from landslide disasters in Sweden and the United States, we focus upon a number of sociologically related research goals. We look at emergent group behavior during the emergency and recovery time periods of the disasters in Sweden and the United States. There are but a handful of explicit cross-societal disaster studies, and we argue that cross-societal similarities and differences must be documented in attempting to help build a better understanding of disaster behavior. The focus upon emergent groups also allows us to further explore the underlying similarities and differences in impact and post disaster emergence, the relationship between collective behavior and social movement organizations, and the connections between collective behavior and organizational research.

Purposes of the Study

This cross-societal analysis of emergent group behavior during and after disaster in Sweden and the United States fullfills a number of significant sociological purposes. The first of these is to gain a better understanding of cross-societal disaster behavior. Such cross-societal comparisons in the area of disaster research are beginning to gain interest among disaster researchers for empirical, theoretical, and applied reasons.
Furthermore, national and international sociology conferences are bringing together disaster researchers from throughout the world. Two disaster journals with an international focus now exist which serve as an intellectual focus and forum for researchers, applied personnel, and others who are interested in the field. Thus, an age-old phenomenon is finally reaching a point of critical mass and the recognition it deserves. This is true not only in the United States, but in the international sociological scene.

Although a number of disaster studies exist which have been completed outside the United States, to our knowledge only five studies have been undertaken with an explicit cross-societal comparison in the research design. Clifford’s (1956) was the first, in which he examined the familial and organizational response to a flood in two towns along the Mexican and United States border. Anderson (1969) compared the military response to a disaster in the United States and Chile. Governmental and institutional response to disaster in Japan, Italy, and the United States was studied by McLuckie (1970). Recently, Huffman (1983) studied the legal structure of industrialized nations in regards to disasters, and Mileti (1983) analyzed organizational warning systems in Japan and the United States. There is a current project between American and Japanese researchers who are looking at the similarities and differences of media response to disaster in both countries, and other cross-societal studies are currently in the planning process. Recent disasters in Mexico City, Mexico and Bohpal, India further illustrate the necessity of understanding disaster behavior in a variety of societal settings. Furthermore, studying disaster behavior in different societal settings give social scientists a chance to view and analyze a variety of structures and processes not normally exposed (Quarantelli, 1979:307). Quarantelli (1979:311) has also suggested that one focus of cross-societal disaster research should be on emergence since this phenomenon occurs often in disaster situations when regular organizations are unable to respond to the crisis.
In addition, through our cross-societal analysis, we hope to ascertain a better understanding of the phenomenon conceptualized as "emergence". This aspect of our study is, in essence, the specific sociological goal. We undertake this task by analyzing the creation of spontaneous, or ad hoc groups, that formed during and after landslides that occurred in the United States and Sweden. The notion of emergence is firmly entrenched in the tradition of American sociology (Hinkle, 1980), disaster research (Quarantelli, 1984), and collective behavior (Dynes and Quarantelli, 1968; Killian, 1984), but has only been on occasion conceptually, empirically, or theoretically explained.

Another focus of our work is to expand the theoretical and empirical development in the area of collective behavior (which includes the study of social movements and their organizations). Until the last 15 to 20 years, a social psychological approach has primarily been used. The more current approach toward this area is to take a social organizational perspective in studying collective behavior (e.g. Turner, 1964; Zald and Ash, 1966; Dynes and Quarantelli, 1968; Weller and Quarantelli, 1973). This approach has specific implication in ascertaining the answer to the following questions: 1) what is the relationship, if any, between collective behavior and organizational behavior, and 2) what is the difference between social movement (organizational behavior and collective behavior (see Gary Marx, 1981; Zald and McCarthy, 1981; Kreps, 1983)? From our analysis, we hope to add further insight by at least partially answering these questions.

As another objective, we will discuss the necessity of expanding the four-fold typology which has been a foundation for studying emergent group behavior in disaster for almost the last 20 years (Quarantelli, 1966; Dynes and Quarantelli, 1968; Dynes, 1974). In studying the various types of emergent groups in the emergency and recovery time periods in the United States and Sweden, we find that the typology needs further refinement. We are not the first to note that such a task should be
undertaken (see Stallings, 1978; Bardo, 1979). In fact, over the last decade, and especially recently, both Quarantelli and Dynes have suggested some leads and examples in refining the typology (i.e. Brouilette and Quarantelli, 1971; Aguirre and Dynes, 1979; Quarantelli, 1984).

With these considerations in mind, our research also leads us to conclude that a more specific definition of disaster is necessary if the field is to make another large stride similar to the progress made over the last 20 years. Our study shows, for example, that the physical characteristic of one type of impact (i.e. landslide) when interfaced with various or different social settings, may lead to different social consequences. Clearly then, a more specific definition of disaster, which delineates various disaster periods and includes considerations for both social and physical characteristics, is needed. Earlier approaches and definitions as suggested by Fritz (1961), Barton (1970), and Dynes (1974), along with Krep's (1984) and Perrow's (1984) statements serve as foundations for such an undertaking. The purpose of our work, however, is not to define disaster, or create a mid-range theory of disaster. Rather, we hope to point out important characteristics for those in the future who may attempt such a project.

Finally, the above tasks have a more implicit goal imbedded within our work. We hope to delineate some assumptions that may be important in developing a mid-range theory of collective behavior. To construct such a theory is not the goal of this project, but rather, to suggest what possible paths to follow might be possible paths to follow might be.

Summary

In Chapter One, we discuss in more detail the various theoretical and empirical studies germane to our project, and delineate assumptions for our analysis from these studies. In Chapter Two we present an analytic framework for a social organizational
approach to collective behavior based upon our literature review. This framework will be used for our data analysis. Chapter Three includes the methodological considerations in doing cross-societal research and describes the data gathering process and analysis of the American and Swedish data. Our case studies of emergency and recovery time emergence are presented in Chapters Four and Five. Our comparative analysis of the data of the emergence behavior in the United States and Swedish disasters and between the United States and Sweden, and the implications of the findings are discussed in Chapter Six. Finally, in Chapter Seven we present a review of our disaster research and collective behavior findings, discuss our research limitations, and suggest directions for future research.
There are a number of themes and ideas that are interrelated in our research. In this chapter, we review important trends in the areas of collective behavior, disaster research, and organizational research. We discuss the relationships between these areas and explain how they facilitate this research.

We begin by noting some of the theoretical transformations occurring in the field of collective behavior. We illustrate that collective behavior is an important area of sociology that historically has focused upon the topics of emergence and change. We also demonstrate that the sub-field of social movements is part collective behavior theory and research. Furthermore, we describe and advocate a social organizational approach toward collective behavior research.

Next, we review trends in organizational theory. We specifically look at recent developments in the area and discuss how ideas from these innovations may aid our research. Furthermore, we draw theoretical connections between collective behavior and Social Movement Organization/Resource Mobilization with recent organizational research.

We also focus upon disaster studies in which emergent groups are a theme or a focus in the analysis or discussion. The ordering of these sections is predicated on the fact that collective behavior and organizational analyses are important areas which have aided in contributing to the study of emergent groups in the disaster research literature. Finally, we discuss the relationships between collective behavior studies, social movement (organization) studies, organizational studies, and disaster studies. The foundations of all these substantive areas will be used in our analyses.
Collective Behavior

To understand key points and directions in the field of collective behavior today, it is necessary to understand its development over the last 90 years. As Merton (1956:36) notes in this manner:

These (functions) range from the direct pleasure of coming upon an aesthetically pleasing and more cogent version of one's own ideas ... by a powerful mind, and the educative function of developing standards for sociological work to the interactive effect of developing new ideas by turning the older writings within the context of contemporary sociology.

Thus, in this section we delineate the historical and theoretical trends in collective behavior, and contend that for our study a social organizational approach of collective behavior is better suited for our research. In addition, we argue that due to collective behavior's theoretical and historical roots, the area has a specific and important substantive niche and perspective in sociology.

Early Roots and Contagion Theory

Three figures first wrote on the crowd (LeBon, Sighele, Tarde), but it is generally LeBon who receives credit for initiating the field of collective behavior in the late 1800s. However, Sighele claims that his work was the first on crowd behavior (Park and Burgess, 1921:167-168ff), even going to the extent of claiming that LeBon stole his ideas (Merton 1964). All three of the figures laid the foundation at about the same time for what is now called theories of contagion. That is, in these earlier writings collective behavior is explained "on the basis of some process whereby moods, attitudes, and behavior are communicated rapidly and accepted uncritically (Turner, 1964: 384)." Essentially, the major themes behind contagion theory are spelled out by LeBon (1960(1896):Chapter 2), noting that crowds act irrationally on impulses, and crowds are activated through impulse and suggestion. Tarde (1969(1901):277-294) takes the same assumptions as LeBon and Sighele, but differentiates between the crowd (people together spatially) and the public (people apart spatially but due to the media,
have a sense of "togetherness"), adding that the public is a recent phenomenon (p. 279).

Early American sociologists drew heavily upon these European writers, and in the first sociology textbook, Park and Burgess (1921) devote an entire chapter of almost ninety pages on the topic of collective behavior. Their perspective, as with other American collective behavior researchers (e.g. Blumer, 1957; Lang and Lang, 1961; Klapp, 1974) until recently was that of contagion. Park and Burgess define collective behavior as "the behavior of individuals under the influence of an impulse that is common and collective; an impulse in other words that is the result of social interaction (Park and Burgess, 1921:865)." Although contagion theory per se has not held up to the test of time (Turner, 1964; McPhail, 1971; Stallings, 1973), implicit theoretical assumptions regarding collective behavior from these early writers still influence collective behavior today.

One of these themes is that collective behavior has traditionally studied two of the three types of social ontology as defined by Hinkle (1980). Figures in the area of collective behavior have traditionally been concerned with what Hinkle called social origins (or emergence) and social change. Even during the 1930s through the 1960s, when the study of social statics (Hinkle's third type of social ontology) was in vogue, those involved in the field of collective behavior were interested in the study of emergence and social change.

Thus, clearly from the work of Park and Burgess through research today, the focus of those involved within the area of collective behavior is both social origins (i.e. emergence) and social change. To illustrate, Park and Burgess (1921:868) note that in the case of social movements, "mass movements make the end of an old regime and the beginning of a new." In this statement we can see the concern of both emergence and change.
Blumer's (1957) writing further reinforced the importance of linking collective behavior with emergence and social change. Blumer's contribution to the area is important in this respect, since during the 1930s through the 1960s he was oriented toward studying emergence and change, whereas most of the other sociological studies were concerned with the study of social statics. The historical focus by collective behavior researchers of studying both emergence and change is one major aspect which makes collective behavior a specific area of sociology.

Also, there is another common theme that originates from Park and Burgess, and Blumer's initial statements on collective behavior. That is, a form of conflict, or social unrest, is a key condition for a collective behavior incident to occur. Park and Burgess (1921:866) observe that, "The significance of social unrest is that it represents at once a breaking up of the established routine and a preparation for new collective action."

A page later, they note that vast changes occurring throughout the world in their time have freed energies providing,

"a world wide ferment... Individuals released from old associations enter all the more readily into new ones. Out of confusion new and strange political movements arise, which represent the groping of men for a new social order (Park and Burgess 1921:867)."

Not only do we see the strong theme of social unrest in this statement, but its strong linkage with the occurrence of new social entities (i.e. emergence) and a new society (i.e. social change).

Blumer (1953:172-173) notes three important indicators of social unrest that may lead to collective behavior. They are: 1) aimless behavior, or milling, 2) excited behavior, and 3) irritability and suggestibility of people. He adds that, "On one hand, it (social unrest) is a symptom of the disruption of breaking down of the order of living. On the other hand, it signifies incipient preparation for new forms of collective behavior (Blumer, 1953:173)." He concludes by adding, "social unrest may be regarded as the crucible out of which emerge new forms of organized activity -- such as social
movements, reforms, revolutions, religious cults, spiritual awakenings, and new moral orders (Blumer, 1953:173)." Again, like Burgess and Park, Blumer creates a strong connection with the occurrence, and the development of new social entities (i.e. emergence) and social change.

The theme of social unrest, or conflict, can be traced to many of today's approaches of collective behavior. Statements by Gurr (1962), Davies (1964), Smelser (1964) Turner and Killian (1972), Oberschall (1973), Brown and Goldwin (1974), Skocpol (1979) and Walsh (1981) among many others all point out that conflict is an important condition leading to collective behavior. Recently, some (e.g. McCarthy and Zald, 1973, 1977; Zald and McCarthy, 1979; Tilly et al. 1975) have questioned the role of conflict as an important condition of collective behavior, especially in regards to the development of social movement organizations and the mobilization of resources. The argument advanced especially by McCarthy and Zald is that the mobilization of resources is more important than conflict for a social movement organization to develop. We take this debate to its conclusion in a later section of this chapter pertaining to social movements and their organizations.

To summarize at this point, we contend that collective behavior is a specific field of sociology, having a historical tradition of studying social origins (emergence) and social change. This is a tradition that still acts as a key focal point for the area today. Secondly, we note that social unrest or conflict, with some exceptions primarily from the subarea of social movements, have historically been considered the key cause of collective behavior incidents. These trends remain true regardless of whether the unit of analysis of the collective behavior incident is the individual or the group, or whether different methodological approaches are used. Next, we turn to the development and impact of the other social psychological approach to collective behavior, that of convergence theory.
Theories of Convergence

Another social psychological approach to collective behavior, which was especially popular in attempting to explain the riots and social movements of the late 1960s was convergence theory. Turner and Killian (1972:19) define convergence theory as the simultaneous release of already existing predispositions, which a number of people share as latent tendencies... people merely reveal their true selves in a crowd, the crowd serving as an excuse or trigger.

Works by Davies (1962) and Gurr (1968), which use the deprivation frustration-agression hypotheses, exemplify this approach. Others, (e.g. Lipset, 1968; Wanderer, 1968,1969; Warren, 1969) also utilize the convergence theory approach. McPhail's (1971) secondary analysis of data pertaining to much of the civil disorders of the late 1960s throws convergence theory into question. He notes that:

Civil disorders are complex and differentiated phenomena. Attempts to account for their occurrence and individual theoretically and operationally. This shortcoming has been magnified by focusing on the "states" or attributes of communities and individuals as causal variables. Examinations of the most reliable data now suggest that such a focus has not been empirically fruitful (McPhail 1971:1070).

Furthermore, McPhail suggests that interactions between people need to be considered in the analysis, and that such conditions as "free time" available for potential participants" and the assembly process must also be considered.

A great number of researchers were involved in investigating the high number of collective outbursts during the 1960s. Most of the researchers did not have a background in collective behavior, or only had a passing interest in the area due to the societal conditions of the time. However, those who were involved in the field were developing approaches much different from the social psychological theories of convergence and contagion. Between the early 1960s and 1970, figures such as Turner, Killian, Smelser, and Quarantelli (among others) all essentially argued the the level of analysis in collective behavior needed to be raised from the individual to that of the
group. Or to put it another way, the roots of a social organizational approach to collective behavior were being developed.

**Social Organizational Theories of Collective Behavior**

A number of various individuals in the 1960s started to question the social psychological approaches to collective behavior. Smelser (1962:11) is one of the first, noting that the "defining characteristics of collective behavior are not psychological." He defines collective behavior as "mobilization on the basis of belief which redefines social action (Smelser, 1962: 8). Although Smelser's definition has been described as tautological, (see Hundley and Quarantelli, 1969), the most important contribution in Smelser's work is raising the level of analysis of collective behavior. This is true in terms of focusing upon the mobilization of a group (rather than on individuals), and contending that structural characteristics (e.g. strain, conduciveness) are important conditions leading to collective behavior.

About the same time Turner (1964) started laying the foundation for emergent norm theory. Not only did he discount the social psychological approaches toward collective behavior (i.e. convergence and contagion), but he noted that "emergent norm theory stresses the continuity between normal group behavior and crowd theory (Turner, 1964:392). In other words, Turner also argues that the level or unit of analysis of collective behavior should be raised, and that there is some connection between collective behavior and every day social organization. These points become clearer as Turner explains why collective behavior takes place.

First, by the nature of the definition of the field, collective behavior occurs only (but not always) when the established organization ceases to afford direction and supply channels for action. Hence one is led into the theory of social organization and disorganization to uncover the major circumstances which produce such failure affecting considerable numbers of people (Turner, 1964:392).
Turner's emergent norm perspective then focuses on how new norms are established in emergency or undefined crowd situations. Unlike convergence and contagion theory, emergent norm theory focuses upon the group or crowd rather than the attitudes of the individual participants.

Research from the Disaster Research Center has led its members to advocate a social organizational approach toward collective behavior. As we noted earlier in this chapter, disaster or other emergency situations often prohibit other organizations from responding to a situation. In turn, spontaneous, or ad hoc, groups then respond (Quarantelli, 1966). A main theme from this line of work is that 1) institutionalized and non-institutionalized behavior occurs concurrently during the same situation, and 2) that one type of situation can lead to another (Dynes and Quarantelli, 1968:428).

A further elaboration of this line of thought followed, in which the social organizational dimensions of collective behavior are more specifically defined as social action engaged in emergent norms and/or emergent social relationships (Weller and Quarantelli, 1973:680). Weller and Quarantelli (1973:677-678) also note that collective behavior is more than emergent norms (i.e. Turner). That is, in such cases as looting in civil disturbances or lynchings emergent norms are absent but collective behavior occurs. In these cases, new social relations emerge, such as a division of labor in the group or crowd setting.

Other recent approaches on collective behavior stress similar social organizational perspective. For example, in McPhail's (1971) critique of convergence theories, he notes in his explanation of civil disturbances that structural or ecological factors are important conditions to such outbreaks. We should add, however, that other studies by McPhail and his associates (e.g. McPhail, 1971; McPhail and Miller, 1973; McPhail and Wohlstein, 1982) do not take such a definite perspective.

Wright's (1978) analysis of crowds and riots also focuses on the form and structure of collective behavior episodes rather than the psychological
predispositions of the participants. Lofland's (1981) typology of elementary collective behavior also uses a perspective of looking at structure and form of collective behavior occurrences. In anticipating critiques that "emotion" has been left out of recent collective behavior approaches (see Snow and Zurcher, 1981; Jenkins, 1983; Klaudermaus, 1984), Lofland attempts to bring emotions back into the area of collective behavior at a group or structural level of analysis. He states:

I have tried to bring emotions back into the study of collective behavior by using their substance and "dominant level of arousal" as principles of classification. It is hoped that such an approach is compatible with the more common cognitive and behavioral conceptions popular in the field at the present (Lofland, 1981:446).

Skocpol's (1979) analysis of revolution in France, Russia, and China also falls under the category of a social organizational approach of collective behavior. In her analysis, she specifically focuses upon the role of conflict and how old regime state organizations meet their demise. She contends that the only way to understand the complexity of social revolutions is through a structuralist perspective:

One can begin to make sense of such complexity only by focusing simultaneously upon the institutionally determined situations and relations of groups within society and upon the interrelations of societies within world-historically developing international structures. To take such an impersonal and nonsubjective viewpoint - one that emphasizes patterns of relationships among groups and societies - is to work from what may in some generic sense be called a structural perspective on sociohistorical reality. Such a perspective is essential for the analysis of social revolutions (Skocpol, 1981:18).

Snow et al. (1981) has advocated looking at collective behavior from a dramaturgical approach. Specifically, they suggest that interactions between structures within groups should be an important point of analysis, and this approach complements other collective behavior approaches.

Thus, the issues of form, structure, and emotion are central to the current debate within the subfield social movements and their organizations. These topics will be discussed in our next section.
Social Movements and Their Organizations

Until the mid 1960s, the study of social movements, a sub area of collective behavior, was dominated by psychological or social psychological explanations (e.g. Burgess and Park, 1921; Blumer, 1957; Morrison, 196). Like collective behavior as a whole, during the mid-1960s the unit of analysis in the study of social movements was raised from that of the individual to that of the group or organization. Yet, some of the proponents within this subfield no longer saw the historical and substantive connection between the two areas of study (see Traugott, 1978 for such an example). Others have suggested that fields such as economics or political science have more to offer than collective behavior for the studying of social movements and their organizations (Zald and McCarthy, 1979). The change in the unit of analysis in the study of social movements and whether social movements is a legitimate subfield of collective behavior are discussed later in this section.

The major turning point in the study of social movements can be found in Zald and Ash's (1966) statement that the social movement organization (SMO) should be the point of analysis, and that the SMO is a different concept from a social movement. Thus, a social movement is defined by them and other SMO researchers as the attitudes or collective beliefs people may have regarding some particular issue. In other words the social movement and the SMO are two different things, an important distinction that Lofland and Jamison (1983) note that many people in the discipline today ignore or miss. Thus, we have used the words social movement and social movement organizations with their warning in mind. Also, we note that the differentiation between the social movement and the SMO strongly reflects Tarde's (1897) differentiation between the public (i.e. movement) and crowd (i.e. organization). Thus we already see two important historical trends from the SMO perspective embedded within the collective behavior tradition: 1) the separation of movement and
organization, and 2) the raising of the level of analysis in collective behavior and social movements in the early and middle 1960s.

McCarthy and Zald (1973, 1977) further elaborated upon the SMO approach. Their focus was upon the mobilization of resources by SMOs and how this process enables SMOs to emerge and maintain their existence. Various social conditions may influence the degree to which individuals or groups connected with the SMO may have key resources (e.g. time, money, people) to contribute. This idea, within the SMO perspective, has been called the Resource Mobilization (RM) approach. Thus, not only do McCarthy and Zald use an implicit resource dependency model right out of organizational theory (which also implies an open systems model), but their approach is very similar to the population ecology model in organizational theory. These connections and their importance are further discussed in our overview of trends in organizational research. We should also add that others (i.e. Oberschall, 1973; Tilly et al., 1975) have also contributed to the development of the RM approach. The common underlying approach among collective behavior and SMO/RM researchers is that of a social organizational approach. In addition, we see that the group or organization is the level of analysis, not the individual. This is the same pattern that has occurred in the development of organizational theory over the last 30 years; the individual is no longer the level of analysis, but rather the organization, or groups of organization is the level of analysis.

A number of key assumptions from the SMO/RM approach are worth noting since they are different from what could be considered conventional collective behavior and social movement thought. One key distinction centers upon the concept of grievance or conflict as an independent variable for the emergence of the SMO. Most theories of collective behavior, whether social psychological (e.g. Blumer, 1957; Davies; 1962; Gurr, 1969) or social organizational (Smelser, 1963; Turner and Killian, 1972; Skocpol, 1979), incorporate the concept of grievance or conflict. However,
McCarthy and Zald would contend that without resources and proper linkages an SMO cannot emerge (McCarthy and Zald, 1977; Zald and McCarthy, 1979). In addition, they argue that since a grievance or conflict is a condition that always exists in society, it is not a true variable for analysis since a variable cannot be accounted for by a constant. Oberschall (1973), however, argues that conflict and mobilizing resources are essential for the development of an SMO. In another similar line of thought, Kerbo (1982) suggests that social movements (his terminology) may occur either through situations of crisis (i.e. conflict) or situations of affluence (i.e. mobilization of resources). Although Kerbo does not go as far as to suggest a synthesis of approaches, he does argue that both approaches are useful in the analysis of SMOs.

Our point here, is that grievence or conflict should not be totally discounted in SMO analysis (or even in the analysis of social movements). Recent related studies (i.e. Walsh, 1981; Wolensky, 1983), including those done at the Disaster Research Center (Neal, 1983), all indicate that conflict is an important condition leading to the emergence of SMOs. We contend then that both conflict and mobilization of resources are key conditions for an SMO to emerge, and that much more research is needed before the debate is closed on the relative importance of either approach.

Another key assumption from the SMO/RM perspective is that the study of SMOs is an area distinct from the area of collective behavior. Traugott (1978), although specifically not an SMO/RM theorist, erroneously makes this extreme statement. Zald and McCarthy (1979) make a much more reasonable argument, although one with which we do not concur, that the study of SMOs should be drawn much less from collective behavior and much more from political science and economics. Gary Marx's (1981) statement, which argues that it is an empirical question as to the degree collective behavior is mutually exclusive and mutually inclusive of the study of social movements and SMOs, we believe, is a much more reasonable approach. In addition, we believe that collective behavior has traditionally dealt with issues germane to social
movements and SMOs. Specifically, the area of collective behavior has made the emergence of new social entities a key concept (along with social change) of analysis, and to a much large degree than any other field of sociology.

Despite some of these different assumptions from the SMO/RM perspective, a strong following has developed. Recent Articles (Walsh, 1981, 1983; Kerbo, 1982; Jenkins, 1983; Wolensky, 1983; Klaudermaus, 1984) and edited books (Zald and McCarthy, 1979; Freeman, 1983) reflect its popularity and explanatory potential. There are a couple of reasons why the SMO/RM approach has become dominant in the study of SMOs. First, the area of collective behavior and social movements has a history of poor conceptual development which impairs the field even today (Blumer, 1957; Marx and Wood, 1975; Aguirre and Quarantelli, 1983).

Secondly, the SMO/RM approach draws heavily upon organizational theory. Meyer (1982) stated that organizational theory has undergone a very positive and significant theoretical conceptual development over the last two decades. Thus, with the improvement of organizational theory, from which the SMO/RM approach is at least partially derived, researchers in the area of social movements were given improved conceptual and theoretical tools.

Even though the SMO/RM approach has a very strong following, it is not without its critics. In addition to the criticism already noted, a major point raised by Zurcher and Snow (1980) and Jenkins (1983) is that without the use of emotion or social psychological variables, SMO/RM theory is empty and does little in explaining SMOs occurance. We believe that this is an unfair criticism since the use of these social psychological criteria run counter to social ontological and epistemological assumptions of the SMO approach. More simply put, the inclusion of such social psychological variables misses the level of analysis (i.e. individual over group/structural) in SMO analysis. If one wishes to use a notion of emotion, perhaps a structural characteristic such as "shared values or norms" (Blau, 1960), is of more use.
In fact, Lofland's (1981:414) use of "dominant emotion", which is a "publically express feeling perceived by participants and observers as most prominent in an episode of collective behavior", would be a proper approach to including emotion in such an analysis.

Another problem pointed out by Walsh (1981) and Lofland and Jamison (1984), and to a lesser extent by Gambell (1980) and Lawson (1983) is that most of the SMOs analyzed are those existing at the national level. Or put slightly different, there is a lack of studies regarding local SMOs. This may be due to a bias in defining an SMO, since its existence is considered to be attached to a national social movement (McCarthy and Zald, 1977). In advocating further SMO research at the local or grassroots level, Lofland and Jamison (1983) list many criteria similar to McCarthy and Zald in so far as what is a SMO, but attachment to a national social movement, however, is the only exception. This differentiation makes sense both theoretically and empirically. For example, in the Disaster Research Center's recent study of emergent citizen groups in disaster, no national social movements have been found pertaining to mitigating or recovering from floods, tornadoes, hurricanes, earthquakes, landslides, or other similar impacts. Yet, local SMOs do emerge around such occurrences and issues (Quarantelli et al., 1983).

To summarize, we believe that a social organizational approach to the study of collective behavior, including social movements and SMOs, offers the best perspective in understanding the emergence and maintainence of such groups. Both the mobilization of resources and conflict are important factors in the emergence and maintainence of SMOs. Other factors, such as pre-existing networks (e.g. Zurcher et al., 1981) also are important to consider. Although individuals' emotions could play a role in the formation and continuation of SMOs, we believe that using such a condition, unless dealt with at a group level of analysis, does not fit a structural or social organizational analysis. This is not to deny that social psychological factors
exist, but rather to point out that such factors are irrelevant to this type of analysis. In our next section, we look at basic historical trends in organizational analysis, and how these trends are tied into the study of collective behavior, especially in regards to the analysis of SMOs.

Organizational Theory

Trends in Organizational Theory

Organizational theory has been used by collective behavior researchers but at times the relationship between the two areas were not properly connected. In this section, we discuss recent trends in organizational theory, and the relationships these trends have with recent collective behavior studies. We include a specific focus regarding these ties between organizational theory and the SMO/RM approach. Most research dealing with collective behavior excludes any direct reference to the formal or complex organizational literature (Dynes and Quarantelli, 1968; Brouilette and Quarantelli, 1971; Taylor et al, 1978; Kreps, 1983 are a few exceptions). For example, the social organizational approach of collective behavior, especially the SMO/RM approach, draws explicitly upon open-systems organizational research, but no reference is made to this relationship. Yet, when advocating this type of approach, Dynes and Quarantelli (1968:676) urge there is "not only the intermixture of institutionalized and emergent behavior, but perhaps more important, (there is) the necessity of concurrently applying an organizational collective behavior perspective." Thus, we find it important to tie various themes from the organizational literature and collective behavior literature. This connection is especially important when discussing the SMO/RM approach. Due to these factors, we find it necessary to give a brief overview of trends within the field of complex organizations.

Early organizational studies (e.g. Taylor, 1911) primarily focused upon the individual worker and how a company could obtain the most work for the least
payment from the worker. This perspective slightly changed as employees started to
discover that improved worker conditions could enhance the workers' production
(Bernard, 1930; Roethlisberger and Dickson, 1939). From an analytic viewpoint, there
was also a shift from studying how the formal structure affected workers to
understanding the importance of how the informal work setting affected workers. It
is also important no note that in these early studies, the individual rather than the
organizational structure was the unit of analysis, and that the impact of the
environment upon the organization or the worker was not considered. That is, an
assumption of a closed system exists in these studies.

The time just following the end of World War II marks the actual beginnings of
the sociological study of complex organizations in the United States. Although Weber
had written his classic works years earlier, not until Parsons (1946) and Gerth and
Mills (1947) translated and interpreted some of Weber's work on the topic, did
organizational analysis become part of American sociology. In addition, American
sociologists were beginning to become involved in organizational analysis. Selznick
(1948) published his classic work on grassroots and the TVA, and Gouldner (e.g. 1948)
started to publish some of his organizational case studies. Thus, the natural systems
model of organizational analysis was born. Here, the informal nature of norms and
interactions among organizational workers was the focus of the study. A reader by
Merton et al (1952) gave further credence to the field and by the middle 1950s, the
area of organizations was part of the sociological domain in American sociology. The
1950s marked the first major stage of organizational analysis in American sociology.
This period was dominated by case study analysis in which the informal processes
between individual workers within a closed system was the main ontological and
epistemological approach (for excellent and more detailed histories of trends of
organizational analysis see Perrow, 1979; Scott, 1979; Hall, 1982).
During the 1960s and early 1970s a shift occurred in which the formal side of organizations became the focus of study, with structural components of the organization being the unit of analysis, and with organizations being compared. A closed systems model, however, was still used. Studies by Blau and his associates (Blau, 1960; Blau and Scott, 1962; Blau, 1970; Blau and Schonherr, 1971), the Aston Group, and others (e.g., Hall, Haas, and Johnson, 1967) all advocated this same type of approach, but disagreed in regard to the importance that size had on organizational structure, and disagreed on various methodological procedures in gathering the data.

Another theme from this time pertained to attempts of creating a typology or taxonomy of organizations. A number of key figures in the area tried their hand at this task (e.g., Blau and Scott, 1962; Etzioni, 1963; Hickson et al., 1967; Haas et al., 1967; Perrow, 1967) did not succeed in devising a comprehensive typology or taxonomy. Hall (1982) suggested the reason for the lack of success is due to the complexity and multidimensions that organizations have.

The late 1960s gave birth to what is now called the open-systems model. That is, the social environment was finally recognized to having some type of impact on organization(s). In some approaches, the organization(s) could also impact the environment. Roots of this perspective can be seen, however, in earlier works by Selznick when he introduces the notion of "cooptation" and by Hawley's (1950) work pertaining to the ecological model. The development of contingency theory by Buckley (1967) and Galbraith (1973), and Thompson's (1967) excellent delineation of organizational relationships all explicitly discussed the relationship between organization and environment. Another open-systems model, called the organizational set, was developed by Evan (1972, 1978). Here, the focus is upon the contacts between a key organizational under analysis and other related organizations. In a similar fashion, studies incorporating network analysis (e.g., Mizruchi, 1982; Knoke and Kuklinski, 1982) follow a similar line of logic.
At the moment, there are two approaches which could be considered mainstream organizational analysis today. An early forerunner of one approach was delineated by Stinchombe (1965). This is population ecology. Rather than focus upon one type of organization within an environment, advocates of this approach (see Meyer and Associates, 1979; Aldrich, 1979; Hannan and Freeman, 1979; 1984) contend that the total population of one type of organization should be studied through time. This would allow researchers to see what impact the environment would have on one type of organization. Specifically, the concepts of variation, adaptation in niches and retention of structural traits within organizational populations would be the main focus of analysis.

The other important open-systems model today is known as the institutional myth approach (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). The focus of analysis here is to ascertain what organizational characteristics are defined as important to organizational success and then copied by other organizations, not as a function of utility, but as a function of appearing to be doing the correct thing. Organizational maintainence and survival takes precedence over organizational goals. Although the other recent open systems models focus upon the more formal aspects of of the organizational structure, the institutionalized myth approach has characteristics to the natural systems model in this respect.

Finally, an important concept, perhaps germane to our analysis of SMOs, has originated from the above open systems models and work by Weik (1976). This is the concept of loosely coupled systems. Originating from organizational studies on school systems, Weik (1976) illustrates how organizations and parts of organizations can be tightly or loosely connected with each other and implications for advantages and disadvantages for either strategy.
The SMO/RM approach draws heavily upon recent open systems organizational approaches, although this usually has not been specifically delineated. There are two reasons why the SMO approach has borrowed from organizational theory. One reason we believe this has occurred is that the whole level of analysis in the area of collective behavior has shifted from the individual to the group. Another important reason is that, as we have mentioned earlier, collective behavior has been criticized for having poor conceptual and theoretical development. On the other hand, organizational theory has gone through a number of positive conceptual and theoretical advances over the last two decades. These events, coupled with implications that there is a connection between collective behavior and organizational behavior (Turner, 1964; Dynes and Quarantelli, 1968; Weller and Quarantelli, 1973; Kreps, 1983), demonstrate why those involved in collective behavior (specifically SMO) research have drawn extensively from organizational research. Thus, what has developed is a great deal of overlap between the SMO/RM approach and the various open-systems models. For example, the perspective of studying the relationships between SMOs and other organizations (see McCarthy and Zald, 1973; Zald and McCarthy, 1980) resembles Evan's organizational-set perspective. In fact, Ross' (1981) recent analysis of an emergent organizational-set demonstrates how collective behavior and organizational theory can be easily integrated. The work by McCarthy and Zald, especially with the focus on the Social Movement Industry (SMI), not only has similarities with the organizational set approach but actually parallels in many ways Scot and Meyer's (1982) organization of sectors approach. In this case, Scott and Meyer (1982: 3) argue for an emphasis of "vertical or hierarchical and extra-local connections among organizations." Various organizational models discussing resources clearly parallel the resource mobilization approach (RM). Aldrich and Pfeffer's (1976) resource-dependence model focuses upon acquisition of resources by organizations from the environment. Clearly, this is the same theme being advocated from the RM
perspective. Hall (1982:317-318) notes that this approach can be further classified as an interorganizational resource-dependence model. We feel that arguments and themes in McCarthy and Zald's work also fall under this classification.

Acquisition of resources from the environment is also important in Meyer and Rowan's (1977) institutionalized myths model. This phenomenon they describe is similar to the process of resource acquisition described in McCarthy and Zald's studies. Specifically, Meyer and Rowan (1977:341) describe how organizations adjust their structures based on "myths of their institutional environments instead of their work activities." This same type of activity by SMOs is evident by local groups studied at the Disaster Research Center (Neal, 1983a,b). In fact, Scott (1981:162) states that the RM approach is in essence the same as the institutional myths model, except the latter focuses on social movement organizations, while the former focuses upon institutionalized organizations.

The population ecology model of Hannan and Freeman (1977;1984) also has important implications with the SMO/RM approach. McCarthy and Zald's (1973;1977) initial statements imply such an approach, but no systematic way of studying a whole population of SMOs has been undertaken. However, Neal's (1983b) discussion and comparison of local emergent citizen groups in disaster with the SMOs of the 1960s mentioned in McCarthy and Zald's (1973;1977) studies show that certain structural changes in the social environment may have altered SMO operations.

In addition, population ecology's "niche theory" to a degree resembles the model of emergence developed at the Disaster Research Center (see Quarantelli, 1966; Dynes and Quarantelli, 1968; Dynes, 1974). Although not dealing with a whole population of organizations, the logic of the Disaster Research Center model pertaining to why such entities come into existence, continue, and die is the same as presented in the population ecology model. Essentially, on both models one can state the the more specialized the organization(s), the less likely it (they) are to survive in a turbulent
environment. The Disaster Research Center model of emergence, we should add is an underlying approach to our research, and is discussed in more detail in the next section of this chapter. As an example, we have found that various SMOs (specifically umbrella organizations) form due to "niches" in the environment due to the potential or actual disaster situation (Neal, 1983a). These niches are the result of some other organizations(s) not meeting specific needs in regards to the disaster relevant situation. Only through a follow-up study in five to ten years could we fully understand the population ecology implications.

A theme was also develop here is based upon the notion of loosely coupled organizations (Thompson, 1967; Weik, 1976). Scott and Meyer's (1982) also use this approach. Hannan and Freeman (1977), in their institutionalized myths model, note how gaps between the ceremonial formal structure and actual activities of an organization exist which make it loosely coupled.

The point here is to illustrate that there are strong underlying similarities between the SMO/RM approach and organizational research. Here, we wish to point out that these similarities exist, that people should be aware of these similarities, and such an awareness, if used properly, can be used to improve upon collective behavior, SMO/RM, and organizational analysis.

**Emergence and Disaster Research**

**Theoretical and Early Historical Roots**

In this pivotal section of our study, we note the historical trends of the study of pre-emergency, and recovery time emergence in disaster, and how these studies relate to our own research. In addition, we discuss the four-fold typology developed by Quarantelli and Dynes, and suggest a further specification of types of emergent phenomenon.

The topic of emergence has been an area of interest for disaster researchers. However, the topic has not had an even history of interest among disaster
researchers, especially when compared to other sub areas such as warning in disaster, the family in disaster, and recovery after disaster. Although the topic of emergent groups is recognized as an area of interest to research since Prince (1920) did the first true scientific analysis of disaster behavior, the area suffers gaps of historical continuity. This is rather surprising since it is a phenomenon that occurs during or after most if not all disasters, and is one of the implicit concepts for defining the properties of disaster response (Kreps, 1982:13). We can say that the work primarily done at the Disaster Research Center over the last 20 years has fully illustrated the importance of emergent groups in disaster and shows ways to analytically approach emergence as a research problem.

Since the time just following World War II, when a more systematic approach to studying disasters was initiated, emergent groups were common phenomenon in disaster. For example, Form and Nosow's (1958) study on the Beecher-Flint tornado clearly shows a great deal of emergent behavior just following impact. Search and rescue groups made up of associated individuals and organizational personnel from different organizations showed the emergent group conditions and process (a similar, albeit more concise analysis can also be found in Form and Loomis et al., 1956).

Other studies make more than a passing reference to the emergence phenomenon. A study by Frizt et al. (1958) note emergent group development and leadership when travelers were stranded at a restaurant during a blizzard. Moore's (1958) study on the Waco/Saint Angelo tornado notes that after the impact a number of emergent groups arrived or formed at the scene of impact to search and rescue victims and to aid the victims in the clean-up from the disaster. Another study (Bates et al., 1963) makes reference to ad hoc groups that formed for the purpose of search and rescue activity after the impact of Hurricane Audrey.

Emergence also occurred outside the North American continent. A study of severe flooding in the Netherlands during 1953 showed that ad hoc communication systems
and groups arose when the established standardsystems. In addition, various communities established a new temporary group consisting of various key officials formed in order to respond to the impact of the flooding (Instituut Voor Social Onderzoek 1955).

From these studies mentioned above and others that mention emergence only in passing, Thompson and Hawkes (1962:291-292) summarize that the emergence of ad hoc or synthetic organizations occurs when "knowledge of needs and resources overlap and an individual is able to or willing to act on such knowledge", and that local officials cannot or will not respond to a disaster. They conclude by asserting:

In virtually every report of American community disasters, some overall headquarters appears to which several active organizations attribute authority. It seems clear that whatever its base (local government, state police, or spontaneous leadership) this headquarters gradually come to coordinate authoritatively the efforts of local governmental agencies, private utilities, voluntary organizations, and representatives of state or national organizations (Thompson and Hawkes, 1962:292).

The implications from these studies and their conclusions are that emergent groups are derived from various individuals who have disaster related skills and use these skills to aid in mitigting the impact of the disaster. Apparently, emergent groups come into existence when extreme stress is put upon the everyday organizations and new structures and new tasks are necessary to deal with the impact.

It was not until after the formation and early work at the Disaster Research Center at The Ohio State University in 1963, that the emergence phenomenon during and after disaster was approached in a more systematic manner. A number of factors were responsible for this new focus on emergence. First, a subtle shift occurred in the level of analysis within the area of disaster research. Unlike earlier studies at NORC and NAS, which was concerned with individual behavior, the studies from the Disaster Research Center focused upon the group (see Kreps, 1979, and Quarantelli, 1979; for a more detailed description of the history of disaster research and the Disaster Research Center).
From the Disaster Research Center's initial fieldwork of 35 different disasters, Quarantelli (1966) made an initial assessment of a more systematized approach of studying organizational response in disaster. A four-fold typology, including varying types of organizational response to disaster was developed. Included in this typology was the notion of emergent groups.

Later, Dynes (1974) used further data from the Disaster Research Center and the files of the original NAS-NRC data on disasters, and other disaster studies (totaling 250 different cases) to expand and elaborate upon Quarantelli's original statement and typology (an earlier version of this appeared in Dynes and Quarantelli, 1968). The result of this research is the well-known typology of organized response in disaster (see Figure 1) presented below:

**TASK**

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<th>NONREGULAR</th>
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<table>
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<th>STRUCTURE</th>
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<tr>
<td>OLD</td>
<td>Established (Type I)</td>
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<td>---------------------------</td>
</tr>
<tr>
<td>NEW</td>
<td>Expanding (Type II)</td>
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Dynes (1974:138)

Figure 1: Types of Organized Behavior in Disaster

Dynes (1970:136-149) notes that during the time of disaster organizations carry out tasks, some of which may be part of their normal or routine activities, others which may be new tasks to meet the needs of the area due to the disaster impact. For example, fire departments normally put out fires, but in the case of a flood they may
partake in sandbagging (i.e. a new task) while maintaining their organizational structure. Dynes also notes that the organizational structure may also change. For example, city government may be in charge of a city during a disaster, as it normally would be in charge during normal times. However, during the crisis, the structure of city government may be altered so those people with certain key organizational positions germane to the disaster situation are in charge of people who normally have much more authority in city government. With these characteristics in mind, that is regular or non-regular tasks, old or new structure, four types of organizational behavior in disaster can be depicted.

Type I, or established organizations, continue the regular tasks and maintain their organizational structure during the disaster episode. Dynes (1974:141) notes that traditional paramilitary organizations usually fall under this category. That is, these organizations are structured on a day to day basis to deal with emergency if not disaster tasks and situations. For example, police generally are in charge of maintaining order during the time of disaster. A point we need to add however, is that this is not to imply that Type I organizations do not or cannot be part of Type II, Type III, or Type IV situations. Actually, it may be argued that at least a small degree of structural or task change may occur in an organization in almost every disaster situation (see Syren, 1981; Quarantelli, 1984). This point is elaborated upon after our review of the emergence literature.

Type II, or expanding organizations, continue their regular tasks while expanding their organizational structure. Example of Type II organizations are the Red Cross, Salvation Army, and many state or local civil defense agencies. These organizations and many others all have emergency related tasks to perform on a day to day basis. However, although the task may not change during the disaster, the structure or the organization changes or increases in size to meet the situation at hand. For example, we have seen cases in floods or landslides where Red Cross officials
gave volunteers a quick training course in organizational procedures hours after the impact and sent these neophytes, who hours before were not members of the Red Cross, out to the field to aid disaster victims.

Type III, or extending organizations, maintain their organizational structure during a disaster, but perform new tasks. This could be either an emergency relevant organization (e.g. fire department) or a community relevant organization that has never dealt with a disaster situation (e.g. construction company, church). In essence, most types of organizations, whether public or private, business or fraternal, may fit this category. For example, a construction company, whose main task is building offices or homes, has the resources and technology to clear away debris just following a major disaster impact. Or, a congregation of church members may join together in a sandbagging effort during the time of regular Sunday worship to save neighbors homes from being flooded.

The typology developed by Quarantelli and Dynes has stimulated a great deal of research on Type I, II, and III organizations that occur during or just following the time of the disaster impact (Adams, 1970; Brouillette, 1970; Kennedy, 1970; Ross, 1970; Blanshan, 1978; Stallings, 1978; Bardo, 1979; Syren, 1981). Yet, until recently, Type IV groups have not been part of a systematic focal point by disaster researchers (Quarantelli, 1984: 4).

The Type IV, or emergent group, when compared to the other three types, is a more spontaneous entity. It has no previous formal group or organizational structure or tasks. Dynes (1974) notes that such groups form in emergency time period situations because the impact of the agent creates needs that cannot by met by other organizations (which would also include the categories of Types I, III, and III organizations). Furthermore, he explains that two conditions may exist which creates these social needs that in turn leads to emergence. The first condition exists when individuals are isolated from other (emergency) organizations. Fritz et al. (1958) study
of travellers stranded in a restaurant due to a blizzard is one such example, and Form and Nosow's (1958) description of search and rescue groups just following a tornado is another such example. The other situation exists when communication, coordination, and/or control ceases to be during a disaster situation. In this type of situations, damage assessment groups or search and rescue groups may form (Form and Nosow, 1958; Zurcher et al., 1970; Drabek et al., 1981), or operations and policy groups may emerge (Instituut Voor Socizal Onderzock Van Het Netherlands Volk Amsterdam, 1955; Forrest, 1974; Quarantelli, 1984). We now turn empirical and theoretical studies pertaining to the emergency time period.

**Empirical Studies of Emergency Time Emergence**

Parr (1970) analyzed 11 disaster situations of which 6 had examples of group emergence in one of the first empirical examinations of this phenomenon with the four-fold typology as a guide. From his analyses, three germane inductive hypotheses were drawn: 1) The less coordinated organizations are prior to and/or during the disaster, the more likely emergence is to occur, 2) the higher the degree of ambiguity of legitimate sources of an authority during or immediately following the impact, the more likely emergence is to occur, and 3) the greater the demand on organizational response due to the disaster agent, the more likely emergence is to occur. Essentially, Parr maintains some level of abstraction in these hypotheses since the tasks of these emergent groups (e.g. search and rescue, medical aid, decision making, resource allocating) all vary.

Deviating from the disaster situation, but still using this approach to study another form of a major crisis (i.e. riots), Anderson (1973) notes conditions leading to local Black nationalist emergent groups. He notes that "it is nevertheless obvious that the disturbances were a major factor in the emergence of new groups in the black community during the 1960s (Anderson, 1973:429). He observed that five years after his initial data gathering, some of these groups were operating, others had folded, and
some cases, new groups replace old ones. It is important to note that here Anderson implicitly expands the typology in two ways. First, he finds it useful outside a disaster setting. Secondly, he finds the typology useful in explaining emergence in a post disaster situation. In essence, many of these groups Anderson studied five years after the riots could be also categorized as local social movement organizations (SMOs).

Perhaps one of the more early comprehensive analyses of emergency time period emergence is Forrest's (1974) study of a major brush fire and flood. A focal point of his pertains to the degree to which structural differentiation occurred in emergent groups. One finding from the study is that high rates of structural differentiation could be found positional and task differences in the emergent groups, but the normative dimension is not differentiated. One relationship he could not fully ascertain is that between size and differentiation, a key relationship Blau (1964) argues exists in complex organizations. He expected to find that the two variables would covary, but notes that "size is not a unitary variable but is strongly affected by compounding intervening factors (Forrest, 1974:93). In addition, he notes that "Emergent behavior is not spontaneous or discontinuous response but is predicated upon a reformulation or syntheses of previous existing patterns of attributes (Forrest, 1974:92). He concludes by suggesting conditions that affect the emergence of a group and the characteristics of a group.

Drabek et al. (1981) take a slightly different approach by analyzing the emergent networking between organizations in search and rescue (SAR) efforts during disasters and/or in isolated areas. They did not look directly at the emergence of a group per se, but rather look at how a number of organizations attempt to coordinate operations (either in a planned or unplanned fashion), and that these emergent linkages highly depend upon environmental factors. Although only touched upon, the authors note further implications for expanding the notion of "loosely coupled"
emergent networks, and the importance of utilizing linkages in approaching this process from a collective behavior perspective.

Ross (1981) also takes a little different and innovative look at the emergent process. Rather than looking at individuals forming groups, he studied the new social networks that form in a disaster situation. Borrowing from Evans' (1976) concepts of focal organization and organizational set, he described and analyzed new patterns of interaction between an emergent group (the focal organization) and the rest of its organizational set. We also point out that Ross' clearly illustrates the relationship between collective behavior and organizational theory.

A number of underlying themes can be drawn from the empirical studies mentioned so far on this section of emergence (including those studies not from the Disaster Research Center. First, crisis is a necessary but not sufficient condition for emergence during or just following the impact. Second, pre-existing networks are quite important in precipitating emergence, and finally, the environment impacts the emergence process. Thus, these studies all hint that conditions leading to collective behavior (i.e. crisis/conflict), the SMO/RM approach (use of pre-existing social networks, especially for mobilizing resources, and organizational behavior (i.e. an open-systems approach) are all important, further suggesting some theoretical link between all. Our next section focuses upon theoretical issues pertaining to emergency impact emergence.

Theoretical Issues on Emergency Time Emergence

More theoretical discussions on trans-impact emergence have been written than has there been specific empirical studies. Wenger (1978), for example, focused on patterns of internal and external community social networks before and after a disaster impact. Wenger contended that under daily circumstances, a community's organizational external ties are stronger than its internal ties. A disaster impact weakens these external ties whereas the internal ties are strengthened. These trends
are more likely to occur because 1) norms favoring altruistic behavior develop following a disaster, and 2) a perceived urgency develops to impede activities to protect lives and property, and, 3) frequent communication breakdown isolates the community (Wenger, 1978:35). Hence these three conditions facilitate the possibility of emergence. As Wenger (1978:36) notes, "the disaster experience creates and eventually dissolves new forms of internal and external linkages within the community system."

Whereas Wenger stresses linkages and implies a collective behavior, social networking orientation, the other theoretical statements draw more upon organizational features and perspectives. In Stallings' (1978) review of the four-fold typology, he contends that emergent groups do take on elementary organizational structures, adding that "emergent groups are more likely to pass from a period of initial homogeneous task distribution to a more highly differentiated status (Stallings, 1978:100)." Within the context of a number of hypotheses pertaining to the four-fold typology, some conditions for the emergence of such groups are mentioned. These conditions include unmet needs and social isolation during time of impact.

Like his empirical work, Forrest's (1978) theoretical essay on emergence pertains to structural differentiation. Focusing upon the structural components of positions, tasks, and norms, he suggests that conditions leading to emergent group's structure include size of the group, previous patterns and attributes within the group (i.e. social networks), goal commitment, and environmental inputs (i.e. resources). Intervening conditions include a feedback process and decision making, which in turn may impact the structure of emergent groups.

In a statement of praxis, Forrest notes that emergent groups need to be further understood and better utilized, especially by disaster planners and managers. He adds that, "In the past emergent groups have been relatively untapped as a resource, but
by employing an understanding of the emergent process, these groups can be more effective agents in disaster recovery and relief (Forrest, 1978:124)."

Pre and Post Disaster Emergent Group Studies

Post Disaster Emergence

From the first systematic disaster study over 60 years ago, to studies undertaken today, post disaster group emergence is evident. Some of these studies give examples of how new organizational units form to aid the recovery process, while other studies pertain to how citizen groups form to prevent future disaster impacts. However, it has not been until the late 1970s that post disaster emergent groups became a specific focus of interest for disaster researchers.

Prince's (1920) study illustrates how members of various organizations set up an ad hoc organization to respond to a massive munitions ship explosion in Halifax Harbour. Due to the extreme severity of the explosion (over 1600 deaths, 8000 injuries, covering over 75 acres), a "Citizens Relief Committee" consisting of people outside both city government and Canada was established to aid in the recovery stage of the city.

Close to 40 years transpired until a systematic disaster study included any type of post disaster emergence. Fogelman (1958:332-334), in this case, discussed post disaster emergence after a hurricane. Here he documented that when disaster funds started arriving for the victims in the area of the disaster impact (Cameron Parish, Louisiana), a committee of local citizens established a group to receive and distribute grants from the contributions to the needy victims. Moore's (1958) study of how tornadoes and a later severe wind and hail storm affected citizens around the Waco and San Angelo, Texas area, gives evidence of a post disaster emergent group. This group was unstructured and reflected a social club during "meetings", which occurred during a storm threat. Friends and neighbors would gather in somebody's storm cellar to wait out a storm. It was dubbed "our Tornado club" by the younger members of those involved. Thus, the post-disaster literature on group emergence remained sparse.
through the 1960s. Post disaster emergence is implied, of course, in the initial statements on emergent groups (i.e. Quarantelli, 1966; Dynes and Quarantelli, 1968), since most of the focus with these studies pertained to the emergency time period.

Another study which set the trend for analyzing post disaster emergence is Taylor's et al. (1978) analysis of emergent mental health organizations after the Xenia, Ohio tornado. Walsh (1981) analyzed the anti-nuclear power groups around the Three-Mile Island nuclear power plant both before and after the incident. Specifically, he focused upon the coalition formed among pre and post incident groups and their attempts to close the power plant. With a similar perspective, but pertaining to floods, Wolensky (1983) analysed the emergent citizen group process and their relationship with local power brokers. From the recent study of emergent citizen groups in disaster undertaken by the Disaster Research Center, Neal (1983a,b) focused upon the relationship between emergent citizen groups in disaster and regional umbrella groups that aid the emergent groups' resource acquisition and political efficacy, and at factors that may lead to an emergent group forming.

In addition, some brief attention is being paid to disaster issue citizen groups before the impact. As noted above, part of Walsh's analysis pertains to groups that formed before the Three Mile Island incident. Nigg's (1979) dissertation analyzed the process by which earthquake preparedness groups emerged, or did not emerge. In fact, the topic of non-emergence is important for both theoretical and methodological reasons (Forrest 1974), and will not be ignored in this study. Quarantelli (1984) discussed how earthquake emergent groups differ from other types of citizen groups that around different disaster impacts. Neal (1984) also discussed the importance of pre-impact groups in regards to placing blame for a potential impact, and how this process may facilitate the emergence of a group.
We can conclude that pre and post disaster emergence is a recognized phenomenon, and unlike early disaster studies, is an explicit area of analysis. The more recent studies, like the recent emergency time studies on emergence, focus on the social organizational rather that social psychological aspects of emergence. Thus, not only is the study of emergent groups in disaster a study of collective behavior phenomenon (similar to the study of emergency time emergence), but it is also a study of local SMOs (unlike the study of emergency time emergence). The influence of the SMO/RM approach is worth noting here since it was used in most of the recent pre and post disaster studies on emergent groups.

Some key underlying themes from all of these studies seem important. Emergent groups in disaster come into existence when: 1) pre-established groups and needs do not or cannot meet the perceived or actual needs of the public or other organizations, 2) communication channels between various groups and people (i.e. potential future groups) do not exist, are not allowed to exist, and/or are cut off, and 3) resources for the group are accumulated. We would also argue that these general points would also lead to emergent groups during the emergency time period (although the tasks would be different). We note that these three points evolve around two different conditions that may lead to a collective behavior incident. These are: 1) some type of structural strain or conflict (points one and three, and 2) the availability of resources. The analytic possibilities of these two conditions are discussed in our next chapter.

Reconsidering the Typology

The four-fold typology for studying emergent groups in disaster has served its purpose well for almost 20 years. Yet, it is clear that the parameters of the typology has been stretched to its limits and that further modifications are needed (e.g. see Bardo, 1979; Stallings, 1978; Drabek, forthcoming). In fact, the developers of the typology have been at the forefront in suggesting and refining possible modifications (Brouillette and Quarantelli, 1971; Dynes and Aguirre, 1979; Quarantelli, 1984).
Brouilette and Quarantelli (1971) note that the typology served its purpose well, but they ask the question whether it will be useful in studying group behavior under stress. To a degree, we would answer yes to this question, as illustrated by future studies. Partially responding to their question, Bardo (1978) expanded the typology by considering manifest, latent, and emergent structures and functions (i.e. tasks) through five time periods (i.e. pre disaster, detection and communication of warning, immediate relatively unorganized response, organized social response, long run post-disaster equilibrium), which is based upon Barton's (1970) work. Although the model shows potential, due to its more cumbersome nature it has not been used or modified by others.

Dynes and Aguirre (1979) have also noted that the typology needs refinement. For example, they explain that within a complex bureaucracy, total Type IV emergence may take place within some aspects of the bureaucracy. That is, some parts of the bureaucracy are not affected by the disaster impact and continue their daily routines and structures, whereas other parts of the bureaucracy are totally restructured to meet the new tasks at hand. Such emergence, they note, is only implied in the typology. A similar theme of collective behavior taking place within organizations can be found in discussions of prison riots (Perry and Pugh, 1978:Chapter 8) and business coups (Zald and Berger, 1978).

In a recent study which emergency time emergence was the prime focus, Quarantelli (1984:8), observes that, "There were many observations we made about the organized responses in disasters, which the old typology did not capture well." His observations reflected those of Dynes and Aguirre, and to a lesser degree Bardo's. That is, changes in tasks and/or structures were occurring within an organization that were not being captured correctly by the typology. Quarantelli (1984:21) explains the logic between the old and new typology:
The newer formulation with its emphasis on minor behavioral as well as major structural and functional emergence, in addition to group emergence, does seem to more adequately capture social reality than the original four-fold typology of different groups.

However, this new typology only captures indirectly the problem of emergence within an organization, with the notion of Type I (Quasi) emergence. Yet, it is important to note that these and many other studies point to the fact that there is some link between the organizational and collective behavior/social movement organization process.

In our research project, difficulty arises when we categorize our cases all as emergent "groups". For our purposes, we believe there is a conceptual distinction between emergent groups and emergent organizations. In the case of the typology developed by Quarantelli and Dynes, they prefer the word "group" when discussing emergence, although clearly cases of ad hoc emergency operating centers or the total restructuring of city governments or the restructuring of one whole department within city governments during a time of disaster reflects a configuration of a new organization rather than group.

In a similar line of thought, Haas and Drabek (1973) use the variables "degree of permanence" and "degree of complexity" to deal with with emergent and organizational phenomenon. All the transitory categories of their typology refer to situations commonly known as collective behavior. In addition, their emergent group entities are called "emergent organizations" (e.g. search and rescue groups), and "synthetic organizations" (e.g. community wide ad hoc emergency operating center). Perhaps their final category, the social movement, is out of place in some respects. Although their examples of a national movement may fit as being the most structured, local "social movements", using their schema, would more likely fall between emergent organizations and synthetic organizations.
With these considerations in mind, and experience from our own field work, we suggest that there is some need to reconsider the terminology and even the total structure of Type IV entities. We suggest that the origins of these entities have important implications in classifying the emergent phenomenon. We argue that the origins of emergent groups have an impact upon the characteristics of the entity. Further investigations may perhaps reveal what impact origins may have upon the career and consequences of the new collectivity.

The first emergent entity we call an emergent group. The main characteristic of such an entity is that it is based upon individuals who happen to be in an area due to various reasons at the time of a disaster crisis (i.e. warning, threat, impact, or recovery). The disaster or potential disaster creates a situation where these individuals are accidentally thrown together and must interact to solve a problem. A basis of leadership and a division of labour does develop, but only with an elementary structure. The length of time may vary from two hours to two years. Thus the length of time is not a salient feature. Although membership may be based upon pre-existing networks, this is not necessary. Meetings are not held in a regular fashion beyond the first meeting (if there are any more meetings). What is important to differentiate here is that the emergent group membership is based upon individual relationships or roles. That is, the activity of the individuals is not based upon prior organizational networks or memberships. Nor are the members meeting because of assigned organizational roles from another organization. Such examples of emergent groups would include search and rescue groups, or local emergent citizen groups in disaster.

The other type of emergence we call an emergent organization. Here, people acting within their organizational role (e.g. civil preparedness director, mayor, police chief) may band together to form a new unit to respond to the disaster. In another case, members of pre-existing local groups or organizations may band together to form a larger organization to deal with broader disaster related issues. Not only do
these people from different organizations band together in a new fashion within or outside of an organizational context, but their tasks and division of labor differ when compared to their previous organizational context. Also, these entities take on a much more formal organizational structure when compared to emergent groups. Perhaps this is due to the fact that membership often is based upon another organization rather than an informal or group setting. But, emergent organizations do not have the degree of organizational structure when compared to other organizations. Thus, we contend that the key to categorizing an emergent group or organization is to understand the origins of the entity through its membership (i.e. individuals or organization roles). Of course, we do not suggest that there are two separate categories, but rather these two categories represent parts of a continuum.

Theoretical Assumptions and Conclusion

There are a number of ideas and themes that are inter-related in this chapter. In this final section, we summarize key points and discuss how they are related and guide our research. The area of collective behavior is currently under a large transformation. We believe that due to its historical focus on emergence and social change, it is an important field of sociology. In addition, collective behavior scholars continue to research social phenomenon that not only deal with emergence and change, but also research phenomenon that others do not even consider studying.

Unlike those in the area of SMO/RM research, we also contend that the study of social movements and SMOs is a subfield of collective behavior. Again, we note that these topic areas are directly related to the themes of emergence and change. As Marx (1981) explains, the specifics of the relationship between SMOs and collective behavior is an empirical question. We hope to help answer this question in our research.

Furthermore, for a number of reasons we use a social organizational approach to the study of collective behavior. First, the social psychological approaches (i.e.
contagion, convergence), have poor explanatory potential. Second, collective behavior is a group, not individual, phenomenon. Weller and Quarnatelli (1973:673) note that collective behavior:

has an aspect of its social-organizational foundation for behavior created concurrently with the behavior it enacts, and each seems to fit the social-organizational nature of phenomena, usually regarded as collective behavior.

The change with the unit of analysis of collective behavior (i.e. from the individual to the group/social organizational), implies that there are connections between collective behavior, SMOs, and organizations. Perhaps the key to this linkage is the study of SMOs. Marx and Wood (1975:366) note that "there is probably a greater affinity between social movements and organizations than among other forms of collective behavior." Kreps (1983) has also alluded to this type of connection.

In addition, we have found that where organizational scholars generally believe (with some exceptions) that the study of emergence is not an important topic of analysis (Stinchombe, 1965:42; Etzioni, 1975:53), collective behavior scholars (e.g. Quarantelli, 1970; Killian, 1984) have found emergence to be an important point of analysis. Conversely, organizational scholars have pointed to the importance of studying structure (e.g. Blau, 1960), while collective behavior researchers until very recently have ignored the point of structure. Our study of a cross-societal emergent groups in disaster necessitates incorporating ideas from both the areas of collective behavior (which includes the study of SMOs) and organizations. Both areas are not only crucial to use for the theoretical reasons given above, but also for empirical ones. The collective behavior literature is useful for understanding such phenomenon as SAR groups, the collective behavior/SMO literature is benefical for our understanding of the citizens groups that developed after the disaster, and the organizational literature gives us extra insight to the emergence and/or restructuring of local governments when resonding to disaster.
Furthermore, these assumptions that we base our research upon must be further delineated for future research. For example, we assume that there are underlying similarities between collective behavior and SMOs, and support this assumption from our theoretical overview. However, the exact degree to which this relationship exists is not known. Thus, Marx (1981) suggests that we must empirically differentiate the degrees of similarities and differences. The same is true in ascertaining the relationship between organizational and collective behavior. Although we clearly demonstrate such relationships exist, the degree to which these relationships exist will be discussed in our analysis. In our next chapter we pull together many of the concepts from this chapter to develop a collective behavior framework for facilitating our later analysis.
As the previous chapter demonstrates, there exists a large literature from various substantive areas that can aid us in explaining emergence. Due to the large amount of knowledge that exists, we do not feel a necessity to invent or reinvent certain sociological concepts. That is, we feel the literature gives us many useful concepts which will facilitate our analysis. We do not eliminate the possibility, however, that we may need to add or refine concepts.

In this chapter, we attempt to integrate various concepts into a simple framework that will aid our later analysis. That is, we believe there are no theories of disaster or collective behavior from which hypotheses can be deduced and tested. Thus, we will present an integrated set of concepts, borrowing from collective behavior, disaster, and organizational research, to construct the framework.

From the collective behavior and disaster literature two lines of thought are used in explaining why various forms of emergence occur. One line of thought focuses on a very general notion of what we will call structural conflict. The other line of thought, borrowing the terminology (but not necessarily the substance) of Smelser (1962), focuses on what we call structural conduciveness. We discuss these concepts (and concepts associated with them) below.

**Structural Conflict**

One general line of thought from the literature focuses on conflict as a condition of collective behavior. Due to the level of our analysis, we do not include the social psychological approaches associated with conflict (e.g., Davies, 1962; Gurr, 1969). The idea of structural conflict is certainly not a new idea in sociology. Varying uses and dimensions of structural conflict can be found in the classical sociological works of
Marx, Weber, and Simmel, and in more contemporary sociological classics by Coser (1956), Mills (1956), and Dahrendorf (1959). Although the idea of conflict and conflict theory are central to sociology, these are "vague and omnibus terms (Zeitlin, 1973:103)." Furthermore, Zeitlin notes that,

The term "social conflict" at its most central level embraces an array of phenomena from interpersonal disagreements and quarrels through class conflict and including, and as well, international rivalry and war (Zeitlin, 1973:104).

Such a broad scope of the use of the concept of social can be seen, for example, in Simmel's work, where his high degree of abstraction allows one to study and use the concept at both the micro (e.g. individuals) and macro (e.g. organizations) levels. In an elaboration of Simmel's work, Coser states that,

Social conflict has been defined in various ways . . . (1)t will provisionally be taken to mean a struggle over values and claims to scarce status, power, and resources in which the aims of the opponents are to neutralize, injure, or eliminate rivals (Coser, 1956:8)."

Coser also notes on the same page that he uses this statement as his provisional and working definition of conflict.

Borrowing and critiquing Marx's works regarding conflict, Dahrendorf tries also to define conflict in a more contemporary context. Yet, his dealings with the concept are also quite general;

I am using the term "conflict" in this study for contests, competitions, disputes, and tensions as well as for manifest clashes between social forces. All relations between a set of individuals that involve an incompatible difference of objective - i.e., in its most general form, a desire on the part of both contestants to attain what is available only to one, or in part - are in this sense, relations of social conflict. The concept of social conflict does not as such imply any judgement as to the intensity or violence of relations caused by different objectives. Conflict may assume the form of civil war, or of a parliamentary debate, or a strike, or of a well negotiation (Dahrendorf, 1959:135).

The point of these illustrations is to show that the notion of social conflict in an extremely broad and encompassing terms. By looking at these and other similar works on social conflict, we find that a nominal definition of this concept is not to be found.
We do give credit, however, for his more specific delineations of conflict later in Dahrendorf's book.

Furthermore, by no means are these illustrations presented above regarding conflict to be thought of as a comprehensive overview of the plethora of theoretical and empirical work on the concept. Yet, we believe that our selective overview of these classic works clearly illustrate the extremely wide net of the concept. Thus, we could argue that the scope of the conflict (see Wallace, 1971:109-110) exists at an extremely high level of abstraction which serves of little use for our means. Wallace (1971:111-112) notes that Merton's notion of middle range theories may facilitate the lowering of the level of abstraction for a concept and in turn facilitate the research process. Thus, with Wallace's suggestion in mind, we next turn to some of the important theoretical suggestions focused on social conflict from the area of collective behavior which in turn may facilitate or attempt of developing a theoretical framework for expaining collective behavior.

Even with the elimination of the highly abstracted approaches toward defining various forms of structural conflict, there still exists a wealth of suggestions from the collective behavior literature. As we noted in the previous chapter, Smelser (1962) was one of the first who delineated a social organizational approach toward collective behavior. His concept, called structural strain, was defined as "an impairment of the relations among and consequently inadequate functioning of the components of action (Smelser, 1962: 47;and 47-66).

Other books on related topics also followed this line of thought. Two books on the topic of disaster response that were published in the early 1970's reflected continued interest in this concept. Barton's (1970) book, which is an inductive attempt to generate hypotheses for future testing, focused his analysis around the concept of "collective stress" Barton (1970). Furthermore, Barton (1970:47) notes that collective stress is a more specific concept of social conflict. He presents a typology and gives
examples of collective stress, but does not give a definition (pp. 40-44). He does suggest four dimensions, however, of collective stress, which are: 1) scope of the impact (geographical, numbers of people), 2) speed of onset (suddenly, gradual, chronic) 3) duration of the impact itself (short or long), and 4) social preparedness (low or high) (Barton, 1970:41).

Dynes’ (1970) book follows a similar path by using the concept “community stress”. He defines community stress as:

a condition of unplanned change in . . . organizational relationships, either objective or perceived, whereby: 1) the community emergency organizations are pushed beyond their abilities, and because of this, they must supplement their capabilities with added resources, including personnel, which changes the nature of the organizations; 2) other organizations, either extracommunity or supportive, must assume unusual activities and functions during the emergency period, which creates; 3) the necessity for new patterns of coordination and control among the involved organizations (Dynes, 1974:81).

There is a similar theme that runs through both Barton’s and Dynes’ discussions. That theme is quite simple and hinges around the idea of unmet needs create some form of “collective” or “community” stress.

Turner and Killian (1972) contend that conflict is part of the explanation of why collective behavior occurs. They make use of the word conflict and similar derivations in their text (e.g. stress, pp. 50; conflict, pp. 420-424), but nowhere do we find a specific definition of conflict in their text or indexed. Yet, these various types of conflict are used throughout the text as a way to explain collective behavior.

Oberschall’s (1973) book on social movements perhaps is one of the more comprehensive ones in discussing the development and role of “social conflict” in relation to collective behavior. First he presents an overview of the concept of conflict, then focuses on conflict in relation to collective behavior. We find it interesting to note that within his pivotal chapter on the sources of social conflict (pp. 30-84), nowhere do we find his own definition of social conflict. His closest attempt to defining it is through example, as presented below.
In all these social conflict the elements of action and reaction of a series of episodes of collective behavior during which groups of people express grievances, voice demands, stage meetings, marches, demonstrations, and sit-ins, occupying property belonging to others, erect barricades, draft petitions, prevent the execution of unpopular orders and laws, interfere with the tax collection and the draft, destroy property, assault other individuals or groups, and in turn get dispersed, beaten, gassed, shot at, killed, detained, arrested, imprisoned, and so on.

Thus, Oberschall tells us what the outcomes of social conflict are, but still leaves us wondering what the social conflict actually is.

The notion of collective violence as a possible indicator of conflict centers upon the work of Charles Tilly and his associates (Tilly and Snyder, 1972; Tilly et al., 1975; Tilly, 1978). Tilly and his associates suggest that "collective violence results from changes in the relations between groups of men and the major concentrations of coercive power in their environment (Snyder and Tilly, 1972:320). Although much of the effort by Tilly in this line is disproving aggression-frustration hypotheses (e.g. Davies, 1962; Gurr, 1969), he does present a concise, albeit still highly abstract definition.

In a relatively recent collective behavior textbook, Perry and Pugh (1978) use the general concept of "situational stress" as a guiding concept throughout their book in explaining why collective behavior occurs. They define situational stress as "natural or social conditions that place excess demands on the capacity of groups to achieve collective goals (Perry and Pugh, 1978:289). Although they admit problems with this definition, that is 1) it is used at varying levels of analysis, 2) it is used as both a stimulus and response, and 3) it is difficult to measure, they find the concept useful for their text (Perry and Pugh 1978:289).

Finally, Skocpol's (1979) comparative, qualitative, and historical analysis of revolution in France, Russia, and China must be considered. We find it important to note that although she borrows significantly from Marx, and suggests the concept "social-revolutionary crisis" is a key independent variable for revolution, her
definitions of the terms conflict and social-revolutionary crisis are not made explicit. For example, Skocpol describes the consequences of social and political revolutions, but explaining outcomes is not a definition of the independent. Yet, her analysis does demonstrate that forms of structural contradictions, or structural conflict, facilitate social revolutions.

Some authors are very specific by delineating what more specific types and/or definitions and/or indicators of concepts (i.e. Oberschall, 1973), whereas others (perhaps intentionally) stay abstract (e.g. Perry and Pugh, 1978:289). Overall, we find most of these analyses pertaining to structural conflict quite vague and ambiguous. Yet, we do find many helpful ideas in directions to pursue. Furthermore, we do believe there is justification for introducing the concept of structural conflict as something to consider when trying to explain collective behavior. Thus, our nominal definition of structural conflict is as follows: Structural conflict is when the components of society are not operating in synchronization. In addition, with this definition, we assume that absolute synchronization (i.e. a Utopia) cannot occur. Furthermore, there are different levels of dis-synchronization (e.g. high to low), and that such conditions and the varying of such conditions are normal in society. As these level increase, so does the possibility of collective behavior. Conversely, as these levels decrease, so does the possibility of collective behavior.

Dealing with a broad concept and definition as structural conflict does not by itself enhance or aid our framework for studying collective behavior. Rather, we suggest that for the purpose of our analysis two less abstract dimensions of structural conflict exist. Structural stress is what we call one dimension. Structural stress here refers to those situations where the needs or demands of a group or community are unmet. Examples could range from disaster situations to a civil rights demands. Works by Barton (1970) and Dynes (1970) exemplify this dimension.
The other dimension we call structural strain. This dimension reflects a more contemporary Marxian nature of conflict pertaining to attempts by groups trying to obtain a resource (e.g. money, power). The works by Oberschall (1973) and Skocpol (1979) reflect this other dimension of structural conflict.

In our analysis, not only will be examining the relationship between structural conflict and collective behavior, but more specifically we will be exploring the relationships between structural stress and emergent groups/organizations. In the next section of this chapter we look at the concept of structural conduciveness.

Structural Conduciveness

Another line of thought used in attempting to explain collective behavior pertains to what we call structural conduciveness. Since this concept of conduciveness is well grounded in collective behavior rather than general sociological theory, we begin our discussion from the collective behavior literature.

Smelser (1962:15) used this concept in describing what structural characteristics facilitate the potential for collective behavior occurring. The most precise "definition" Smelser gave this concept was couched in the form of a question. "Do certain structural characteristics more than others permit or encourage episodes of collective behavior? (Smelser 1962:15)?" Basically, we would infer that Smelser is defining structural conduciveness as those structural characteristics which facilitate the occurrence of collective behavior.

Although Smelser perhaps popularized the concept, he is not the only one to make use of it. In their text on collective behavior, Turner and Killian (1972:61-64) discussed the "conditions conducive to collective behavior. Although like Smelser, they do not really delineate the general notion of conduciveness, they do illustrate the concept my listing, describing, and defining what they believe are three dimension of conduciveness: 1) ecological factors, 2) social control, and 3) attitudinal factors.
In considering the above points and related discussions from our literature review (especially pp. 21-28), we contend that there exist certain structural arrangements besides structural conflict, that may lead to collective behavior. From our interpretation of this literature, we believe there are three dimensions of structural conduciveness. These are: 1) mobilization of resources, 2) network concentration, and 3) ecological factors.

We begin our discussion by first examining the mobilization of resources. This approach, first brought to the forefront of social movement theory by McCarthy and Zald (1973:1979), has become extremely popular in the analysis and explanation of social movement organizations. Oberschall (1973) and Tilly (e.g. 1978) have also been instrumental in developing this perspective. Like other concepts used to define conditions for collective behavior, the ability to find a clearly marked definition for this concept is difficult. McCarthy and Zald (1973:25) note trends in the increase of social movement organizations activity due to "the result of several secular trends - in funding through foundations and personal income, the increased importance of television and other community devices, in discretionary time, and in career alternatives." The point here, and made in the previous chapter, is that social movement organizations emerge when resources are available in the organizational environment.

Oberschall (1973:28) is more specific in his definition. "Mobilization refers to the process by which a discontented group assembles and invests resources for the pursuit of group goals." Like McCarthy and Zald, Oberschall notes that groups compete for resources in order to achieve their own goals.

In a more general conceptual level, Tilly (1978:69), who borrows from Etzioni, defines mobilization as "the process by which a group goes from being a passive collection of individuals to an active participant in public life." Furthermore a group should mobilize by 1) accumulating resources, 2) increasing collective claims on the
resources by a) reducing competing claims, b) by altering the program of action, and c) by changing the satisfaction due to participation in the group as such (Tilly, 1973:70).

Thus, an underlying theme from what is known as the resource mobilization perspective is that social movement organizations cannot emerge unless resources are available and attainable. In our analysis under the rubric of structural conduciveness, we will consider the mobilization of resources as the ability of a potential or actual emergent entity to obtain material or non-material items that facilitate the entity's emergence. We should also note here that we are adding a new twist to the resource mobilization perspective. In the past, its use is only associated with studying social movements. In this study, we will also apply this notion to study other forms of collective behavior. If the concept "resources" is also beneficial in studying types of collective behavior other than social movement organizations, this would give further evidence of a theoretical and empirical connection between collective behavior and social movements and their organizations.

Social network analysis is another dimension, we believe, of structural conduciveness. Social networks are a focal point of analysis of structural sociology (Mayhew, 1980; 1981), and the methodology of networks has become important in the study of many different areas of sociology (Knoke and Kuklinski, 1982). In the area of collective behavior, a number of recent studies show that the existence of pre-existing social networks is a key condition for collective behavior. Empirical examinations show that pre-existing social networks are evident in crowd celebrations (Aveni, 1977; Snow et al., 1981), religious social movements (Snow et al., 1980), the early (Phillips, 1985) and more recent (Freeman, 1979; Rupp and Taylor, forthcoming) origins of the women's movement, and in the civil rights movement. Unlike most other aspects of collective behavior research the notion of social networks here is often dealt with in an extremely precise and operationalized format. Or, a general definition is not at
hand. We will consider the social network as a form of intensity of relationships, based upon whether the contacts between two individuals are as 1) strangers, 2) acquaintances, or 3) primary group.

Beyond resources and social networks, ecological factors may facilitate emergence. In McPhail's (1971) critique of social psychological studies of riot behavior, he suggests that situations facilitating the availability and convergence of large amounts of people in a particular point in time and space may facilitate a riot. Drawing upon the Kerner Commission's study of the riots in the late 1960's, McPhail (1971:1070) notes that free time and well travelled pedestrian intersections were important factors facilitating the emergence of riots. He also seems to suggest that weather conditions may effect the availability of potential participants. The factor of weather in this vein is also noted by Neal and Phillips (1985) in other types of gatherings.

As we noted earlier in our general discussion of conduciveness, Turner and Killian (1972) take note of ecological factors. Like McPhail, they believe that arrangements of interaction of people in space may facilitate collective behavior. Recent, unpublished work by Johnson and Feinberg at the University of Cincinniti find also (through computer models) that not only people, but objects in space may also effect the emergence of collective behavior. We draw upon Turner and Killian for our definition the ecological dimension of structural conduciveness as, "Any arrangement of people that increases the opportunities for spontaneous, uncritical, communication that increases the likelyhood of collective behavior (Turner and Killian, 1972:62). We should add a note here that in the definition we substituted the word "likelihood" for "conduciveness" to avoid a tautological definition.

An Overview

As we noted in the previous chapter, there are two different structural theoretical lines in collective behavior. Often they are thought of as being competing
perspectives (see Zald, 1980; Walsh, 1981). Oberschall (1983) and Kerbo (1982) are the few exceptions. From our literature review and discussion in this and the last chapter, we believe that potential exists for integrating these theoretical perspectives. At times, it would appear that both some forms of structural conflict and structural conduciveness are present when collective behavior occurs. At other times, it would appear that only structural conflict, or structural conduciveness is present when collective behavior occurs. Our analysis within this framework will allow us to see also how structural stress, structural strain, resources, networks, and ecological factors are related empirically. To aid the reader, we visually present a schema of our framework for collective behavior.

<table>
<thead>
<tr>
<th>Structural Conflict</th>
<th>Structural Conduciveness</th>
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<tr>
<td>Stress Strain</td>
<td>Resources Networking Ecological Factors</td>
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Figure 2: Framework for Explaining Collective Behavior

In the next chapter, we describe the logic of our research design for a cross-societal comparison of emergence in Sweden and the United States during the emergency and recovery time periods. We also discuss how the data were gathered, their comparability, and how the data were analyzed.
In this chapter we consider a number of points. First, we present an overview of some of the literature of comparative sociology, comparative collective behavior, and comparative disaster research. Comparative organizational research is also alluded to in our discussion. From our analysis of these studies, we then describe the type of research design we used to make our comparisons. Next, we discuss the data gathering techniques for both our Swedish and American data sets, and describe our justification of how these two similar data sets can be compared. Finally, we describe how the data are to be analyzed.

Comparative Sociology

Comparative sociology is considered more of a method than a substantive area of sociology. For this reason, along with the length of our literature review in the previous chapter, we have decided to include comparative studies in this chapter. In addition, sociology is steeped in the tradition of comparative research as exemplified by the classic works by Marx, Weber, and Durkheim. After the comparative studies by these sociological giants, comparative analyses by others were few and far in between. After a long period of neglect, research in the area of comparative sociology has increased over the last 20-25 years (Thomassan, 1978:4).

There exists some questions of what exactly comparative sociology is. Some (Grimshaw, 1973; Smelser, 1976) contend that there is nothing distinctive about comparative sociology since at least in theory, all of sociology is comparative. Ragin (1981) counters this argument by stating since societies exists, and the societal level is an appropriate level of analysis, comparative sociology as a particular method and a unique perspective cannot be ignored. Marsh (1967) further illustrates the
distinctive nature of comparative sociology. He argues that rather than considering this method and approach being a sociological luxury, cross-societal comparative analysis is essential for the development of sociological theory since, "by broadening the range of variation in variables, comparative data from different societies compel theory to attempt to explain more than it has here to fore (Marsh, 1967: 7-8)."

Others, such as Blau (e.g. 1960), use the term "comparative sociology" as a way of referring to a study in which there is more than one case. In fact, Blau's call for comparative analysis was in response to the one case-study organizational analyses of organizations in the 1950s. Thus Blau's notion of comparative sociology refers to studying two or more cases. Our definition of comparative study comprises of including data from at least two (if not more) societies (Marsh, 1967) in which the data are taken from the societal level and from a level within the society to facilitate various forms of comparative analysis (Ragin, 1981).

Above, we mentioned that doing comparative sociology is a technique which permits improvement of sociological theory. This is by itself is a legitimate reason for this type of research. There are other important reasons for undertaking comparative analysis. For example, Burns (1967:114) notes that ethnocentric tendencies of social science researchers can be further eradicated which in turn leads to better research:

The purpose of comparative studies . . . is to achieve an understanding . . . which is different from that current among the people through whose conduct the institutions exist. The us;praxis of comparative studies is therefore to criticize: To criticize or assumptions about the meaning of behavior, and claims about values and achievements (Burns, 1967:114).

Burns add that such an approach of questioning and destroying myths is similar to Lazarfeld's analysis and questioning common sense assumptions in The American Soldier.
Another thrust of comparative studies, according to Bendix (1963:532), is "an attempt to develop concepts and generalizations at a level between what is true of all societies and what is true of one society at one point in time and space." Holt and Turner (1970: 5) add that cross-societal research is necessary "to generate a body of theory and concentrate . . . on making the theory more general and valid." In addition, since our approach is inductive, which also implies a process of theory building, our techniques and methods merge well. In fact, Etzioni and Dubow (1970) note that "comparative research may precede theory building." Thus, essentially comparative sociology leads to better sociological analysis, less ethnocentric understanding of sociological behavior, and better theory.

**Comparative Collective Behavior and Social Movements**

Of all the sub-fields covered for this study, this area is probably the most lacking in any type of explicit or implicit comparative analysis. A search of major journals in the United States (i.e. The American Sociological Review, The American Journal of Sociology, and Social Forces) and in Sweden (i.e. Sociolisk Forskning) revealed nothing in this area. Rameriz (1981) also noted that in a review of comparative social movement literature, that few studies exist of a comparative nature.

**Comparative Studies in Collective Behavior**

One attempt to explain revolutions from a cross-societal perspective was by Davies (1962). He argued that when expectation rise higher than what actually exists in a country, the outcome is revolution. A study on a similar theme was undertaken by Gurr (1969). In an analysis of 119 polities, he attempted to uncover the causes of riots, protests, revolutions, and other similar occurrences. Basically, he argued that increases in forms of social deprivation, which included relative deprivation, are important conditions leading to discontent and eventually collective action. These two similar approaches have been labeled the "agression frustration" approach. Methodological problems exist with the work. For example, Davies and Gurr are guilty
of mixing their levels of analysis. In one case, a reader may be confused as to whether Gurr is discussing an individual’s level of relative deprivation within a particular country, and how that individual impacts social protest, or whether Gurr is discussing aggregate measures of relative deprivation which then represents the degree of relative deprivation for a country.

Another series of studies have questioned the whole relative deprivation, frustration-aggression hypotheses as posed by Davies and Gurr. Studying collective violence incidents in Germany, France, and Italy between 1830-1940, Tilly et al. (1973) call into question the frustration-aggression approaches. For example, the authors conclude rapid structural/societal changes in the three countries studied did not lead to increases in collective violence. In discussing the role of cross-societal research in trying to ascertain the importance of conflict as a condition lending itself to collective behavior, the authors assert,

“We do claim that the international comparisons, as well as the studies of American violence, are reducing the credibility of most breakdown theories as they increase the credibility of some solidarity and political process theories (Tilly et al., 1975:295).”

They add that this trend is evident because they find 1) structural changes causing changes in individual’s attitudes do not effect the degree of collective violence, and 2) the structure, pattern, dynamics, and political power do impact the degree of collective violence. In our own research, although not dealing specifically with collective violence, it will be important to see if structural change or conflict is responsible for emergent groups in Sweden and the United States, and to see if the levels of structural change or conflict are the same or different in each country.

Not all forms of collective behavior studied in other countries involve violence. Rosengren et al. (1974) make an implicit cross-societal comparison of a similar "War of the Worlds" incident that Cantrill (1940) studied close to five decades ago. In November of 1973, a play was broadcast over Swedish radio in which the plot evolved
around a nuclear power plant meltdown in the Barsback, Sweden area. Although the play was announced as fictitious, and was set in 1982, and the nuclear power plant in Barsback was not yet completed, the mass media reported widespread panic. In the Swedish case, however, the authors concluded that panic really did not occur. In Figure 1, presented below, we duplicate the results of what their survey data show, and what the media reported of people’s behavior after the broadcast of the play.

Table 1: Survey Data vs. Media Picture of the Barsback "Panic"

<table>
<thead>
<tr>
<th></th>
<th>Survey Data</th>
<th>Media Picture</th>
</tr>
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<tbody>
<tr>
<td>Misunderstood the</td>
<td>10% of population</td>
<td>Many</td>
</tr>
<tr>
<td>programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral</td>
<td>1% of population, in</td>
<td>Widespread escape panic</td>
</tr>
<tr>
<td>reactions</td>
<td>most cases contact</td>
<td></td>
</tr>
<tr>
<td></td>
<td>with family, neighbors, etc. No escape panics.</td>
<td></td>
</tr>
<tr>
<td>Authorities,</td>
<td>Short Excitement,</td>
<td>Great and lasting</td>
</tr>
<tr>
<td>organizations, etc.</td>
<td>telephone exchanges</td>
<td>bewilderment, many</td>
</tr>
<tr>
<td></td>
<td>jammed for a short</td>
<td>important telephone</td>
</tr>
<tr>
<td></td>
<td>while</td>
<td>exchanges jammed</td>
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<td></td>
<td></td>
<td>for considerable</td>
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<td></td>
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(from Rosengren et al., 1974:315)
A conclusion then drawn from Rosengren et al. (1974) is that they question Cantrill's original study in which the radio show "War of the Worlds" created a mass panic.

Comparative Social Movements

In the area of comparative social movements (including the study of SMOs), we find few relevant studies. Ramirez's (1981) overview of the comparative social movement literature clearly illustrates this point. However, some points can be gleaned from what does exist. A major theme in Swedish studies that might be considered studies of social movements, is that the focus of most studies are from an applied side to increase citizen involvement in regional planning in the country (Elvander, 1965; Bohm, 1975). Furthermore, Groth (1979) has noted that citizen participation in Scandinavia (which of course includes Sweden) has increased since the 1960s. He argues that the rapid social change during the 1950s and 1960s in Scandinavia resulted in the increase of government regulating the economy and other important spheres of the citizens' lives. One sphere pertained to social welfare and living conditions. The other sphere pertained to the improvement of cultural and local community life. The second sphere of these changes involved the urging of the state to have ordinary citizen participation such as ad hoc groups involved in local planning.

Thelander (1981) has studied citizen participation in water planning in Sweden and notes the effort the government makes to involve citizen groups in the planning process. However, she suggests that the actual power these citizen groups have is minimal (Thelander, 1981). In a similar vein, Miller and Krausser (1979) further develop the theme of citizen participation when explicitly comparing American, Swedish, and Anglo citizen participation. The authors note that the United States has a tradition of active citizen participation and use of social movements. They add that not until the middle 1960s were some of these movements at least partially funded through
the federal government and the most of the participants were from the middle and lower class. They summarize the American experience by noting:

The United States has a long tradition of pluralist interest group participation in local politics, which can be explained by the relatively weakness of local government authority and political parties there. American local political parties are rarely class-based, and they lack the influence and the high degree of legitimacy enjoyed by their counterparts in many European countries (Miller and Kraushaar 1979:130).

In essence, although the Swedish government has attempted to use SMOs in policy decision making, they have not been as successful in the United States, argue Miller and Kraushaar. Sweden does not have as much of a history of social protest and SMOs. Although the Swedish citizenry learned from the American protests and SMOs of the 1960s, Sweden did not experience the social turmoil during that time to put such information into action (Miller and Kraushaar, 1979:30). In addition, they conclude, that citizen participation concepts have been more relevant to the forms of local politics which have developed in the United States than to the European system of class-based parliamentary parties. The relatively weak impact of the citizen participation concepts on Swedish local government can partially be explained by the extraordinary strength and pervasiveness of the belief in representative parliamentary forms of governance in Sweden which militates against the extra-parliamentary forms of influence (Miller and Kraushaar, 1979:30).

**Research Design**

The approach used in our study is known as the "most similar design (Przeworski and Teune, 1970). This type of research design fits the purpose of our project and the nature of our logic. The procedures and logic of this approach is as follows:

Such studies are based on the belief that systems as similar as possible with respect to as many features as possible constitute the optimal samples for comparative inquiry. For example, Scandinavian countries or the two-party systems of the Anglo-Saxon countries share many economic, cultural, and political characteristics, therefore the number of "experimental" variables, although unknown and still large, is minimized. It is anticipated that if some important differences are found among these otherwise similar countries, then the number of factors attributed to these differences will be sufficiently small to warrant explanation in terms of those differences alone (Przeworski and Teune, 1970:32).

In fact, and partially alluded to above, Sweden and the United States well fit the type of comparison undertaken. Lammers and Hickson (1979) observe that there are
three different organizational types associated with different cultural/national types. These are: 1) the Latin type (classical), 2) the Anglo-Saxon type (flexible bureaucracy), and 3) the Third World type (traditional organization). Lammers and Hickson (1979:422) specifically note that both Sweden and the United States fit type number two. Thus, we can further conclude that a similar general organizational environment exists in which possible emergent groups come potentially into existence and then interact.

Furthermore, since we are dealing with only a few cases, this type of comparative research is well suited for our methodological purposes. For example, Skocpol notes that,

Comparative analysis is appropriate for developing explanations of which only a few cases exist . . . In fact, comparative analysis is the mode of multivariate analysis to which one resorts when there are too many variables and not enough cases (Skocpol, (1979:35).

Comparative cross-societal analysis actually consists of two levels of analysis. First, a comparison and analysis should be made of the cases within a country. Thus, in our analysis, we will first focus upon the conditions by which emergence occurs in Sweden and the characteristics of these entities. First we will look at the emergency time period groups. Using parts of the method of grounded theory (Glaser and Strauss, 1967) we will inductively construct general patterns of relationships with the Swedish emergent group/organization cases. The same procedure is then used with the United States cases.

The next step is then to compare the general characteristics, conditions, careers, and consequences of emergent groups between the United States and Sweden. From this point of our analysis we can make any remarks regarding specific cross-societal differences or similarities and explanations for such differences or similarities.

One aspect of our data will be kept in mind for our analysis. We are dealing with only one Swedish disaster. In fact, this is the only Swedish natural disaster in at least a
decade. On the other hand, the United States data deals with two explicit comparative situations on landslide cases, and we have two other emergent group/organization cases from recent landslides.

**Analytic Tools**

For any type of analysis, data must be ordered in a systematic fashion. The data from our case studies are put into what is know as the "C-Model". This schema is an ordering device that has been successful in systematizing the data at the Disaster Research Center (see Taylor et al., 1978; Quarantelli, 1983). Below are the four categories and an explanation of what each entails.

**Characteristics** - This refers to a description of the emergent group/organization, which includes such things as group size, membership attributes, structure (e.g. vertical/horizontal division of labor), and degree of formalization. We add, that for the purposes of our study, this category is for purely descriptive purposes. That is, we highlight salient features of the emergent entity (or the organizational environment if no emergence occurs) that gives the reader a sociological impression of the emergent group/organization under study.

**Career** - This refers to tracing the history of the emergent group/organization from its origins to its endings (or its continuing existence at the time the study ended). Any changes in key characteristics are especially noted.

**Consequences** - This refers to the degree of impact, if any, the emergent entity had. For example, with a search and rescue group, we would be interested in finding out to what degree it had any success in finding people or other objects. Not only are manifest consequences important, so are determining if any latent consequences were observable.

**Conditions** - This is our explanatory category that pertains to our analysis of the data. Here we find out why did the group/organization form, why did it take on a certain structure, why was it successful or not, and why did it continue to exist or die.
Here is where we systematically apply our analytic framework of collective behavior, and discuss where any form of structural conflict (i.e. structural stress, structural strain) or structural conduciveness (resources, networking, ecological factors) exist.

Except for our analytic framework, the C-model is atheoretical. It only helps us put our data into a systematic framework. In a similar fashion, Glaser and Strauss (1967) suggest an atheoretical approach when studying a social setting. A totally atheoretical approach, however, is unproductive - it is similar to reinventing the wheel every time a new car is designed. For example, in this case we use a social organizational approach to studying a form of collective behavior. Such an approach also further implies other theoretical assumptions that cannot be avoided. One of these assumptions is that an open-systems organizational model can be used in our approach. Thus, in our analysis in discussing the conditions that led to the existence of emergent groups, we use also an analytic model that has been used at the Disaster Research Center.

An assumption of this model is that the external environment impacts local entities, such as emergent groups/organizations. Conversely, emergent groups may also impact the social environment. The extra community setting is that which impacts the local setting, such as federal legislations or national interest groups. At the community level, threats pertain to what the emergent group/organization members perceive as a threat which may also put demands upon the situation. Along with demands, certain aspects of social organization, such as social linkages and resources to deal with the threat are considered.

All of this occurs within a social climate. This concept pertains to the norms, values, and beliefs within the community. This dimension is especially important for our cross-societal analysis to see if any cultural differences are important conditions to emergent groups/organizations' origins and structural characteristics. In turn, the social climate impacts the community links and resources mentioned above. Resources
of emergent groups are mobilized by activities mediated by the social climate. The mobilization may lead to various outcomes which then may or may not impact (i.e. the feedback process) the environment. Within this context we do our comparative analysis of emergence.

Data Gathering

The Swedish Data

The Disaster Research Group of Uppsala University, Uppsala, Sweden, initiated their research design to study the landslide in Tuve, Sweden about six months after the impact. They had two foci with their project (for a full, detailed explanation of their research design, albeit in Swedish, see Hultaker, 1981). One was to look at the household/familial response to the disaster. A random survey and structured questionnaires were used for this part of the project.

The other focus of their study was on organizational response with a specific look at emergence. Two open-ended field instruments focusing upon organizations (including emergent groups) were used. With the one instrument, questions focused upon 1) groups and organizational response following the disaster alarm, 2) availability and use of disaster plans, 3) action by the organization/group before, during, and after the impact, 4) contact between organizations, and 5) inter and intra-organizational conflict. The other set of questions pertaining more to the four-fold typology focusing upon, 1) the origins of the emergent entity, 2) membership and leadership, 3) contacts with other authorities and organizations. The specific questions used in Swedish and were then translated into English for use in our United States Cases.

An open-ended format was used in questioning the informants and respondents. That is, each question reflected a concern of obtaining structural characteristics of the organization(s) and group(s) involved. A strategy of selective, saturated sampling was used to give determine what individual would be contacted within an organization.
group, and also what group or organization would be contacted. Organizations and
groups that were involved in the disaster setting, and those that perhaps should have
been but were not, were contacted by members of the Disaster Research Group.
Individuals from varying levels of group or organizational responsibility were
interviewed to obtain an overall picture of the organization or emergent
group/organization. In all, 21 different groups, organizations, and emergent
group/organizations were contacted, many more than once. A total of 67 people were
interviewed. Such organizational representatives included members of the Fire
Department (8), Police (9), County Government (4), Street Department (2), School
Authorities (4), Social Welfare (4), Swedish Radio (1), The Red Cross (1), and many
others. Over 3000 pages of transcripts resulted from these interviewing efforts over
an 18 month time period. We should add that these data are different from the
interviews of 212 household cases pertaining to the landslide. Although these other
data did not directly pertain to organizational response, questions relating to the
respondents' perceptions of various organizations and emergent
groups/organizations served as useful information in our case studies.

Along with the interviews, copies of any written group or organizational
documents were obtained by the Swedish researchers. These documents were
especially helpful in filling the missing parts of the data from the interviews. The
recovery period emergent groups and organizations were with much less formal
documentation of themselves (e.g. internal memoes, letters). This is an important
piece of information in itself, since this reflects that the recovery time period
emergent entities had a less formal method of record keeping. Subscriptions to the
local and national Swedish press during and following the time of impact provided
further valuable information by not only tracing the chronology of events, but by
listing important meetings and meeting places of various emergent groups.
A major concern in any cross-societal research where different languages are involved is the correct translation of the material involved. Without accurate translation, both the reliability and validity of the data are compromised. A number of procedures were done to insure both reliability and validity. To begin, the major part of the research pertaining to the writing of the case studies was done during the author's five week stay in Sweden. Thus, while the data were being read, analyzed, and initial case studies written, a member of the Disaster Research Group (who was in charge of the emergent group study) continually checked the interpretations, memo-es written by the author to the author, translations, and case studies from the data. Almost daily conversations transpired between this person and the author. In addition, another member of the Disaster Research Group, and a former research associate of the Disaster Research Group were consulted at time on various topics. This process, as suggested by Quarantelli (1982), helps to maintain the integrity of cross-societal data and analysis of the case studies presented in the next chapter.

The United States Data

The United States data were gathered from two larger projects conducted at the Disaster Research Center. One project was a comprehensive study of emergent citizen groups (ECGs) during the pre or post impact disaster periods. In all, 53 different situations were studied, including four landslide cases. The other data are from a larger study of emergent groups during the emergency time period of disaster. With this project, 10 cases were analyzed, with three being landslide situations. We used the three landslide data cases for our analysis. Two cases are where emergence occurred, and one case is where emergence did not occur. Like Forrest (1974), we believe that the inclusion of non-emergent cases strengthens the description and explanation of the emergence process. Also with all three cases, a translated version of the Swedish field instrument was used during the interviews.
In addition to our three emergency time period cases, we also present and use two other post-disaster landslide cases from the ECGs project to compare with the recovery time emergence after the landslide in Tuve. Although slightly different field instruments were used, we feel such a comparison is legitimate since by and large, the data from all the cases are after the same time of information regarding the emergence process. We discuss the overall degree to which these data can be compared later in this chapter.

Of the emergency time landslide cases, the author was at the disaster site seven days after one of the incidents and 14 days after the second incident. About a week was spent during the follow-up at each field site by the author. The main focus was on the emergency time activity (which was in many aspects still going on upon my arrivals). Key officials from disaster related organizations, non-disaster related groups who were involved, organizations that should have been involved but were not, and other salient members of organizations or groups were interviewed. Eleven key officials were interviewed from our Washoe Valley, Nevada case. In Farmington, Utah, 23 officials were interviewed (with some of these interviews, information was also gathered on floods and other landslides occurring at the same time). A follow-up trip to the Farmington, Utah and neighboring Bountiful (which was also affected by the same set of landslides as Farmington) was undertaken 12 months after the initial impact in order to see if any type of emergence took place in these two communities (it did only in Bountiful). Using the Swedish interview schedule, 12 officials were interviewed. In half of the interview situations, informants and respondents had information on both Farmington and Bountiful, and some of the interviewees had two different organizational roles in regards to the possibility of emergence or responding to an emergent organization. Although the Swedish instrument was used, the same procedures used were essentially the same as in the other ECG studies.
As with the Swedish data gathering techniques, we obtained and analyzed documents and other written materials from governmental agencies, private organizations, emergent groups, the media (including newspaper subscriptions and duplicates of some important radio and television broadcasts). In addition, with many of our cases, including the important explicit comparative cases, field observations during the disaster and interviewing respondents and informants soon after the incident played an important role in our data gathering. Since we were in the field during and just following the initial emergence in most cases, the necessity of obtaining as many face to face interviews as the Swedish data dictated was not necessary.

Data Analysis Procedures

Our data analysis was undertaken by using the C-model as a way of ordering our data. Within the C-Model, we catalogued various aspects of each emergent (and non-emergent) case. The list of characteristics of each emergent entity (found in Chapters IV and V) and our guiding analytic framework of collective behavior (found in Chapter II) further directed us in organizing our data and providing us with an initial way of explaining emergence. This process is very similar to the one suggested by Lofland and Lofland (1984:131-149).

Once we reached the stage of ordering our data, the constant-comparative method was employed (Glaser and Strauss, 1967: 101-113). With this technique, a combination of two approaches are used (Glaser and Strauss, 1967: 101-113). The first is to put the data into a format so some basic hypotheses can be tested. Then, by considering new coding procedures and by refining and adding new concepts and relationships, new hypotheses are generated. Our collective behavior framework serves as the first step of this procedure. From analyzing these data, we will suggest some conceptual changes in our framework. Thus, from this process of analysis we can begin to
describe and explain emergence in different societies, and begin to refine and framework to begin to develop a theory of collective behavior.

Compatibility and Comparability of the Data

We firmly believed that our data is extremely compatible and comparable. To begin, we have used the same field instrument for our main Swedish/United States comparative cases. That is, unlike many other types of comparative cross-societal studies (especially in the area of disaster research), our study has an explicit research design for methods of direct comparison.

In addition, we are concerned with the structural and social organizational features of emergent groups/organizations. Thus, we do not have the same problems of translation and cultural language problems that social psychologists would have. For example, a study focusing upon a comparison of Swedish and United States dating habits encountered such problems. One such question administered to respondents in each country asked about patterns of "necking". Due to Swedish sexual norms, no such behavior or concept exists, whereas in the United States, such behavior is important in the mating process (Trost, 1984).

On the other hand, since Sweden and the United States have very similar organizational structures, (i.e. Lammers and Hickson, 1979), problems of finding similar organizational terms were non-existent. In fact, studying organizational characteristics and discussing them with Swedes were quite easy, we believe, due to the organizational nature of Swedish society. For example, Janson (1974:283) observes that, "Sweden is sometimes referred to as the land of organizations. With a slight overstatement, it has been said that everything is organized except crime." Thus, we contend that dealing with structural processes and characteristics of emergent group/organizational behavior minimizes, albeit does no eliminate, language problems.
Also, we should note that in general, Swedish sociology has been much more influenced by the tradition of United States sociology (Janson, 1974). This trend is very evident among the members of the Disaster Research Group in Sweden. The members have studied, taught, and/or have done research in the United States. Specifically, before the research of the Tuve landslide started, members of the Disaster Research Group in Sweden visited the Disaster Research Center in the United States, which resulted in the strong underlying similarity of studying emergent group behavior. Thus, we conclude that the data can be compared quite easily, and should make a contribution to the area of cross-societal disaster research.
CHAPTER FOUR: THE EMERGENCY TIME PERIOD CASE STUDIES

In this chapter we present our case studies of emergent groups and organizations in Sweden and the United States. For each geographical area discussed, we first present general background information. We discuss such topics as disaster history and disaster preparedness, and any other information that may give insight into the stricken area. We next present a case study of each potential emergent case. These case studies are in the format of the "C-Model" (discussed in the previous chapter). First we describe the career, or history of each specific case. Next, we elaborate upon the characteristics of each case, and then we turn to the consequences or outcomes of each case. The key dimension in explaining emergence, conditions, is then delineated.

The case studies presented in the next two chapters are to aid us in answering our two major research questions. Those questions are: 1) why does emergence occur, and 2) are the reasons and the process for emergence the same or different in Sweden as they were for the United States? The first question will be answered primarily based upon our analytic framework of collective behavior, whereas our second question will be answered in a more inductive fashion.

Furthermore, the description (i.e. career, characteristics, consequences) and explanation (i.e. conditions) of the cases will aid us in discussing a number of secondary issues in our later analysis. These issues include defining disaster, refining and integrating the social movement organization/resource mobilization approach with collective behavior, refining our analytic framework for collective behavior, and discussing theoretical and empirical connections between collective behavior, social movement organizations, and organizations based upon our data. In this chapter
we first present the three Swedish cases on emergency time emergence, then we present the three United States cases on emergency time emergence.

Swedish Case Studies

Background Information

Sweden is a relatively disaster free country, however, a massive power blackout impacted most the country (see Syren, 1984; Hultaker, 1984; Tornquist, 1984) in late December 1983 for close to 24 hours. Perhaps this situation was more a mass emergency than a disaster since no deaths, or injuries, or major problems were created. Also, as this dissertation was being written, a poisonous gas leak in Karlsloga forced the evacuation of over 300 residents (Dagens Nyheter, January 13th, 14th, 1985). Such events, however, are an exception to Sweden’s relatively disaster free society. Yet, the country tries to maintain a high degree of disaster preparedness. Several reasons account for their relatively disaster free environment.

First, Sweden has only 8.3 million people in a country the size of California. Although 80 percent of the population lives in urban areas (compared to 60 per cent in 1960), much of this population is still not highly concentrated. Only in the major urban areas such as Stockholm, Gothenberg, Malmo, and Uppsala, for example, do we find areas that exist where a disaster (e.g. mudslide, explosion) could affect a large number of people. Second, Sweden is a highly regulated country that has a strong emphasis on safety for its citizens. For example, Sweden is well known for its efforts to improve automobile safety through mandatory seatbelt usage and strict drunk driving laws. Not only are these regulations in the books, but they are also enforced. This same value system of concern for safety is found also in Industry. Unlike the United States, industry, government, and labor unions in Sweden work closely to maintain safe worker standards (Kelman, 1981). Such a value system also exists in the area of disaster prevention and disaster planning.
Finally, Sweden exists in a relatively free natural disaster environment. Unlike the United States, for example, Sweden does not usually have such threats as tornadoes, hurricanes, volcanoes, severe rains, and floods. Sweden does experience massive amounts of snow on occasion (see Tornquist, 1977), but response to this type of situation, unlike the United States, is usually handled in a normal fashion (Flodin, 1982).

If there is a region in Sweden that is prone to disasters, it is in the area around Gotenberg. Along with suffering three mudslides within 27 years, the city has also experienced a major rain and wind storm in 1969 that resulted in injuries and property damage. A major explosion during that same year also occurred. These two specific incidents forced local officials to reconsider their disaster planning. In addition, these two incidents were partially responsible for the Fire Law Act of 1974. This legislation specified how a disaster was to be handled and who was to be in charge.

The first known major landslide occurred just north of Gothenberg in the town of Surte on September 29, 1950. One person was killed, 34 homes were destroyed, and between 300 to 400 victims were left homeless. Although large in its impact (i.e. the area affected was 400 meters wide and 600 meters long, and moved homes in its path between 50 and 100 meters), the disaster was quickly forgotten by most of the town's citizens and disaster planners. Another major mudslide hit a nearby suburb called Tuve in June of 1957 killing three people and destroying 30 homes over an area of 300 meters wide and 800 meters long. In 1964 geologists did a study in Tuve and found no major potential major landslide areas.

This proved not to be the case on November 30, 1977 in Tuve. A few minutes after 4:00 p.m. and without warning a massive mudslide impacted Tuve. Nine people were killed and 67 homes were totally destroyed creating over 100 million kroner (or about 25 million dollars) worth of damage. At least 63 victims had to be hospitalized.
Another 134 homes were directly or indirectly affected by the landslide which led to the evacuation or over 600 other residents. Rumors of the possibility of more major slides persisted between three to five days after the initial impact. These rumors were reinforced by a few very minor landslides that occurred in the area on December 3. However, no major slides followed.

Since the Tuve landslide, another study by geologists indicates that four potential slide sites exist in the Gotenberg area. Most of these areas are on the outskirts of the city and contain homes and factories. Geologists feel that predicting which area could be the next slide site, and when it would happen, would be an impossible task.

The Emergency Time Period Cases

During the time immediately after the impact of the landslide in Tuve and over the following three days, three cases of emergence were evident. One such case was the emergence of two ad hoc coordinated rescue stations at the northern and southern locations of the landslide. The second case involved a total restructuring of county government to deal with the disaster response. The final case of emergence during the emergency time period was the Helpcenter. The main task of the Helpcenter was helping victims with immediate needs such as food, clothing, shelter, and access to the disaster site during the recovery stage of the disaster.

The Rescue Stations

Career Two rescue stations came into existence on the northern and southern ends of the landslide area. Initially these two points were the informal gathering places of arriving emergency teams, but by six o'clock that evening (almost two hours after the impact), these sites had been designated as the official rescue stations. Once various rescue officials started arriving at these sites the activities of the ad hoc rescue groups were coordinated by the Gotenberg Fire Chief from his headquarters.

After the original alarm sounded, the first message to headquarters indicated that only "one house" was damaged. But after the initial teams of fire (including the
ambulance) and police personnel arrived, the extensive nature of the disaster became evident. Thus more personnel were immediately called. For example, we know that 43 fire personnel were at the northern disaster site within 15 minutes after the impact.

As the Swedish Fire Law of 1974 dictates (in both Gothenberg and the rest of the country), the firechief of the city will be in total command of a disaster. This is precisely what occurred following the landslide. However, the formation of the two rescue stations and the coordination between them with the firechief's headquarters were not part of the fire or disaster plan.

Initial activities at the two rescue stations focused on the search and rescue of victims. This task was primarily carried out by fire and police personnel. Other tasks developed at these two stations soon after the impact. One task centered on security as a fear existed of looting in the area, and there loomed the possibility of another landslide. The immediacy of security was enhanced by the early sunsets. Thus, there was a coordinated effort between the firechief and the two rescue stations to keep all people out of the disaster impact site except those involved in the search and rescue area.

By 6:30 that evening officials at the southern rescue station, which was located at a gas station, began to establish a list of 1) missing victims, 2) found victims, and 3) those missing who were probably on the way home to the disaster area. During this same time at the northern rescue station, which was located at a church, an effort was underway to register the names of the victims. By this time, the "mass assault" at the disaster site was underway with an estimated 1000 people around the disaster site.

A key decision with important implications was made by the firechief at 6:45 p.m. He decided to relinquish his control of the disaster situation and turn it over to the county government. The primary reason for such a decision was that the firechief realized a very large disaster had occurred and that the resources needed to deal with the immediate problems and potential problems in the following weeks would be
enormous and much more than what the city had available. County government took almost four hours to meet and respond to the firechief’s request. At 10:20 that same evening county government finally met and decided to take responsibility and control of the situation. Ironically, the basic field decisions were given back to the Firechief. The county government also became part of the Disaster Management Group (an emergent organization which we will discuss next) that maintained authority over the disaster situation for only five days. Then the Disaster Management Group gave authority back to the firechief. Thus, it was from the Disaster Management Group that the rescue stations received important policy decisions.

In the Disaster Management Group’s meeting the following morning after the impact, a major concern expressed was the perceived problem of looting. Thus, after the first 24 hours or so after impact, the tasks of the rescue centers were turning from essentially search and rescue activities (which included looking for those presumed dead) to security tasks (which included “stopping looting” and keeping people away from the area since a further potential for landslides prevailed). This change in tasks occurred because most victims (either dead or alive) had been found or accounted for within the first 24 hours after impact, and the concern for security increased by citizens and public officials. Thus the two rescue stations were responsible the day after impact for both search and rescue activities and security. The rescue stations became formal posts for entree into and out of the landslide area. Decisions of who could enter, and how long one could stay within the impact zone were decided at the rescue centers. Later, such security matters were coordinated with another emergent organization, the Helpcenter, which we describe later in this chapter.

Characteristics. Due to the ephemeral nature of the rescue stations and the disaster, exact numbers of personnel from various organizational departments were difficult to obtain. We do know that each site initially had fire personnel who directed activities from each site through communications with the Firechief and his two
assistants. Thus, through this communication process, the firechief made all key decisions (such as whether to bring in heavy equipment), whereas those in charge at the field made less important policy decisions (e.g. what areas to search first). Initially, these sites resembled mini emergency operating centers (EOCs), having representatives and workers from the fire department (which also include the trained ambulance drivers), police, hospital personnel, and other organizations. During this time the informal authority of the police grew. This was due to the task change from search and rescue to that of security. Security fell more readily into the organizational domain of police rather than fire.

We should add that the initial tasks of the rescue stations were search and rescue, which also included giving first aid to the victims at the scene of the impact, and if necessary transferring the victims to the hospital. Although the search and rescue tasks continued for around four days, the issue of security became the main task within 24 to 36 hours after the impact since most of the missing were accounted for, there was the potential for further slides between four to five days after the impact, and there was a strong perception that looting was taking place in the area. This perception, we should add, was reinforced by false media reports. In one instance, a television station showed people at the disaster site and claimed these people were looters in action. Actually, these "looters" were members of the militia in an area close to one of the rescue stations. The militia was doing its disaster duty of cleaning debris and securing part of the perimeter of the impact area. Except for the role of the firechief and his two assistants in the field the first few hours after impact, the hierarchy of the emergent organization was horizontal. Perhaps this was due to the fact that basically there was one major task through time that needed to be accomplished. That is, first there was the search and rescue duty at the Rescue Stations, and then there was the security task.
The members of the fire department were in charge of coordinating the efforts of the other fire personnel (including the ambulance services), members of the police department, medical personnel, and volunteers. After the Disaster Management Group took formal control of the Rescue Stations, a more centralized and horizontal structure existed. Within a day or two, the role of the medical people decreased to the point where they were no longer needed, and the role of the militia increased quickly due to the perception of looting in the area, and to keep residents and others out of the impact and evacuation area because of the threat of another landslide. After five days, the firechief was given authority of the situation. In this case, the centralized, horizontal structure among the representatives involved in the rescue stations remained, with the main task still being securing the disaster and evacuation zones.

**Consequences** Essentially, the two rescue stations served their purposes of helping to serve as a communication point in initially ascertaining the degree of the crisis, and of more importance to its structure, locating victims as part of the search and rescue process. The search and rescue actions were handled well. The task of securing the impact and evacuation zones, however, was handled in a marginal way. This is not to suggest that looting was a major problem or the presence of the personnel did not prevent looting. Rather, the people dealing with security had a difficult time in keeping those victims of the landslide out of the secured area. These victims were looking for possessions in the area of their destroyed homes and those who were evacuated from the danger zone were going back into their homes to retrieve valuable items.

In addition, due to the firechief relinquishing his control of the disaster operations fairly soon after the disaster impact, the county government had to restructure its tasks and organizational structure, or, in other words, had to create a new organizational entity. This included taking charge of some parts of the city structure such as fire, police, and street departments. Due to this situation, the
Disaster Management Group emerged as focal emergent organization dealing with the disaster response for the following five days after the impact.

**Conditions** As soon as the alarm sounded, the firelaw plan went into effect. However, when the fire personnel arrived at the scene (both at the north and south ends of the landslide), the personnel there quickly concluded a "normal" situation was not at hand. Specifically, the destruction was much greater than what was expected. Thus, the areas that spontaneously served as gathering places for fire, police, medical, and other officials evolved into mini emergency operating centers. What is important to note here, is that the formation of these mini-EOCs or rescue stations were not part of the normal "fire-plan" in Gotenburg or Sweden. Rather, the immense nature of the impact resulted in the formation and continuation of the rescue stations. The location of the two rescue centers were determined by accident. That is, the landslide cut off key roads going north and south into the Tuve area. The area where heavy debris started to cover the roads leading into the impact zone is where the two rescue stations emerged. The availability of two public buildings in these areas (i.e. a gas station at the south end of the impact zone, a church at the north end of the impact zone) further aided the locations of where the rescue centers were established since these two facilities had resources such as empty rooms/space, telephones, and other supplies. Thus, we can conclude that some ecological factors aided the way the Helpcenters were set up.

**The Disaster Management Group**

**Career** Beginning at 10:30 p.m. on the evening of the landslide until the afternoon of December 5, the Disaster Management Group (referred in this section as DMG), made the key administrative decisions regarding the disaster. The first meeting was prompted by the firechief's decision to relinquish authority of the disaster response to the County Government. We must add that just the County Government did not run the disaster operations. If this were the case we would have a Type III, or expanding
organization as described in an earlier chapter. But rather, organizational representatives from various governmental offices, and representatives from the private sector, were involved daily in the policy making decisions regarding the disaster response. Although county officials were generally the most prevalent at these meetings, we cannot agree that county government was in charge because other organizational representatives (e.g. fire department representatives from city government) had important input and were an actual part of the decision making process. Rather, what existed for six days was an ad hoc, or emergent organization that was in charge of the disaster response.

The DMG had representatives from 17 different organizations present during its first meeting late in the evening just following the impact. Other than deciding to take the responsibility of the disaster response, issues at hand pertaining to gathering more information as to the actual extent of the damage, what areas to barricade, and just what to do next.

The second meeting was set for 8:15 a.m. the following morning. There were 23 people representing 10 organizations at the meeting. A major concern turned toward preventing looting (which did not occur), and to keep residents out of areas that could have been impacted by further landslides. Most concerns in this meeting were of technical concerns such as obtaining machinery and similar items and how to use them to facilitate the immediate post-impact recovery.

The third meeting was on that afternoon at 2:00 p.m., or about 22 hours after the initial impact. The meeting was held at an early afternoon hour to decide issues that were relevant to the early setting of the sun in December. Technical matters, including how to continue operations of search and rescue, clearing debris, and security after the sunset were of the major concerns. At this time 100 military personal started aiding police in attempting to secure the impact and evacuation landslide zone.
The fourth meeting was Friday afternoon with 41 officials representing 16 organizations present. Although technical and logistical concerns of searching for the missing dead, securing the area, and cleaning and clearing the impact zone of debris were still stressed, the concerns of the victims were finally started to be recognized. In fact, plans were discussed for another small emergent organization (i.e. the Helpcenter).

On Saturday, the third day following the impact, an afternoon meeting was held at 2:30 with only 15 officials from 10 organizations at the meeting. This meeting further demonstrated that human concerns rather than technical, logistical concerns were being recognized. For example, evacuees and victims of the landslide were not yet not allowed to go into the secured area. A compromise was reached between between victims and officials where identification papers were devised which allowed a victim to go to a rescue station and then enter their own homes and/or obtain certain possessions from their homes during a specified time. In addition, the Helpcenter aided the DMG in devising the method for entering the disaster zone.

The final meeting, held two days later at 2:30 p.m. focused upon a number of items. First, control of the disaster decisions was returned to the firechief. Second, the DMG members discussed the idea of forming a new committee consisting of representatives from county government, building officials, and street department officials in helping to plan for the long-term recovery of the victims. This initial ideas and actions aided in laying the foundation of another emergent organization called the Tuve Committee.

Consequences The DMG was responsible for the initial management of the disaster situation in terms of ascertaining needs of the victims and coordinating the initial disaster response. The tasks of meeting various needs and managing the situation were tied into the two other emergent organizations of this time period (i.e. the rescue stations and later the Helpcenter).
Characteristics This ad hoc entity is a good example of an emergent organization. That is, although officials from county government were often in charge of some situations, the county government was not solely determining policy. Officials from police and fire departments, social welfare, and other organizations from local and state levels were at all the meetings and participating in the decision making process. Specifically, representatives from six or seven core organizations served as the core of the Disaster Management Group in making policy making decisions. For example, both the county government and the fire department had at least two and usually at least four members at each meeting. In addition, 19 other organizations had at least one representative present during at least one meeting. Clearly, the county government and fire officials played key roles in decision making. But, such a structure illustrates that more than just county government was in charge.

As such, any type of organizational structure was rather flux and horizontal in nature. Some organizational representatives, such as members from the Street Department, had more influence than others due to their available organizational resources. The table on the following page, taken from Syren’s (1981) organizational analysis of the Tuve disaster, summarizes the organizational involvement.

Conditions The DMG is clearly an example of an emergent organization. The process leading to the formation of this emergent organization started when the fire chief gave control of the disaster to the county government. However, county government did not have all the necessary people and material resources to handle the situation. Thus, key city officials were the city (and other organizations) where called upon (e.g. fire, including the fire chief, police, social welfare) to aid in information exchange, decision making, and other related topics. In order to coordinate efforts, an emergent organization was created.
The Helpcenter

Career The Helpcenter formed during the fourth meeting held by the Disaster Management Group the third day following the disaster. Members of the Disaster

Table 2: Organizations Represented at Disaster Management Group Meetings

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(from Syren, 1981:92)
Management Group realized that the victims of the landslide were becoming restless and even "aggressive" in attempting to obtain information about where or how to receive aid and information. One official during this meeting suggested that a help center was needed to inform and aid the disaster victims.

In addition, the firechief quickly pointed out that a center of some type must be set up by the disaster area to aid the victims. He felt the sooner it was established, the better for all involved (i.e. both the authorities and victims). He suggested that the third day after the impact would be a good time to establish a center and that the representatives from the police, fire insurance agency, public administration, and social welfare among other potential department and agencies could be present in answer victims' questions. Thus, social rather than technical needs due to the disaster were finally recognized some 72 hours after the impact.

On Saturday, December 3 at 9:00 a.m., a Helpcenter was established at the Glosstrop school. Representatives from the police and fire departments, the state insurance system, and social welfare services were present. Close to 1000 people used the Helpcenter’s facilities on that day and between 400 to 500 people came to the Helpcenter the next day. The center stayed open for 12 hours, if not informally longer during its first two days of operations. During the first week of operations, these hours stayed the same.

However, by the 12th of December, the fire department and social welfare department were no longer present as official representatives of the Helpcenter. This change, along with a move to another nearby school marked a drastic change in the Helpcenter’s activities. Only three organizational representatives were involved with the Helpcenter - members from the police department, insurance agency, and social welfare department. The center was only open from 4:00 to 7:00 p.m. during the week and 10:00 a.m. to 7:00 p.m. on weekends. Telephone lines were staffed from 9:00 a.m. to 7:00 p.m. during the week and from 10:00 a.m. to 7:00 p.m. on the weekends.
On December 19th, the Helpcenter announced through the media that the center would close from December 23rd through December 26th for the Christmas holiday. Also, beginning on this date, only representatives from the police department and the social welfare department would be present at the Helpcenter.

On December 28th, the Helpcenter temporarily closed. A telephone number to a member of the police department was available daily for use between 9:00 to 11:00 a.m. to allow the victims a chance to gain access to their homes.

On January 12th, 1978, the Helpcenter reopened at another location just north of the landslide area. However, people had to call first before they could come in person to the center. Their calls had to be placed between 10:00 a.m. and 3:00 p.m. and only during weekdays in order to arrange an appointment which would be between 9:00 a.m. and 11:00 a.m. on weekdays. The center was now closed on weekends. As the debris of the disaster were further cleared and people's lives started to return to some degree of normalcy, there were few if any further tasks for the Helpcenter. Thus, the Helpcenter officially closed on March 8, 1978. If there was any necessary related business after this date, a phone number was still available for victims to call.

**Characteristics** By following the career of this emergent organization, we see that one main task dominated its existence. That task was to help maintain security in the disaster area. Specifically, the center had the purpose of keeping perceived looters and unauthorized personnel out of the disaster area. The Helpcenter, mainly through the police members, gave authorization to those who could enter the disaster area. This explains the role of the police department from the beginning to the end of the existence of the Helpcenter. As noted above, the fire department's direct role was short, pertaining only to the search and rescue efforts and formal leadership role (as prescribed by law). But as soon as the immediate disaster and emergency situation was over, the role of both the fire department and social welfare was no longer necessary and their representatives no longer essential at the center.
Thus, the division of labor at the Helpcenter was essentially horizontal. That is, people from each department did the tasks that they felt were necessary and within their own domain. This is not to imply that each unit at the Helpcenter was a separate entity. Technically, the Disaster Management Group, and then the firechief, did seem to be involved in certain administrative coordination aspects of the Helpcenter, such as its various locations and the times it was open and closed. In addition, we found that the internal communication between the different organizational representatives working at the Helpcenter seemed minimal, since there was no real purpose in having a large degree of integration of tasks.

The Helpcenter had few external contacts. First, the various organizational representatives at the Helpcenter kept their own organizations informed with how relevant operations were proceeding and other relevant information. The main contacts for the Helpcenter, however, were the disaster victims. Over 70 per cent of those victims directly or indirectly impacted by the landslide (i.e. home damaged or forced to evacuate due to the potential of further landslides) used the Helpcenter at least once, and over 40 per cent consulted the Helpcenter at least twice. The media were also another contact with the Helpcenter and aided in the dissemination of information about the Helpcenter's purposes, hours, and other information.

Consequences The Helpcenter partially fulfilled its role following the disaster. Success was evident by the way which they reached out to victims, assessed their needs, and responded to their needs. The largest need for the Helpcenter was in regard to victims obtaining permission to enter the impact zone to inspect their homes and/or obtain various documents there. However, this later task of gatekeeper was often pre-empted by the victims. In this respect, the Helpcenter was not successful in the view of officials, but was from the victims' perspective.
The United States Emergency Time Period Case Studies

Background Information

Davis County can be considered a bedroom county to Salt Lake City, which is the
capitol of Utah and perhaps more importantly, the international headquarters of the
Church of the Latter Day Saints (LDS Church), or the Mormons. Two cities in the
southern portion of the county, Bountiful and Farmington, especially fit the category
of a bedroom community of Salt Lake City since they are respectively seven and 15
miles north of the State Capitol and there are major highways leading into the Capitol.
Unlike other communities in the middle and northern parts of Davis County, residents
of these two cities are mostly white collar workers, administrators, and
businesspeople. Compared to the cities and in the middle and northern parts of Davis
County, few blue-collar workers live in the communities under consideration. Many
of the residents in Farmington are employed by the LDS Church and work in the
International Headquarters located in Salt Lake City.

Besides the fact that the county seat Farmington is much smaller in size and
population than Bountiful, the two cities have essentially experienced the same social
events since their foundings in 1847. For example, both cities obtained telephones,
electricity, street lamps, and were incorporated at about the same time. In addition,
population growth, grasshopper attacks, and disaster impacts on the two communities
followed the same pattern.

Not only is this area under study heavily Mormon (about 95 per cent in
Farmington and Bountiful), but it is close to 99 per cent white. Most residents’
ancestry is Anglo Saxon (over 35 per cent) or Northern European (over 30 per cent).
Of most importance, however, is the fact that the LDS Church has a strong hold upon
the lifestyle of many of the residents in the area.
Both Farmington and Bountiful have a mayor-city council-city manager government, with the mayor's position being part-time. Both communities (as the whole county) are Republican and conservative, with Farmington being considered "very conservative" by LDS members in Salt Lake City. Of course, the LDS Church's philosophy and way of life permeates state and local politics. In fact, it is often difficult to separate the religious and political aspects within the communities. We must add, however, that the LDS Church is trying very hard to differentiate the two, especially in disaster related situations. They have had some success in doing so.

Historically, the overlap between the political dimension of this area and the LDS Church has always existed. In Farmington, for example, a LDS Ward (a ward is the Church's way of dividing up geographical areas in regard to Church matters) contributed $920.00 in 1892 for the building of the $6000.00 city hall. In turn, the ward then "owned" one room which was then used for church services and meetings. In 1917 the city bought a Church building for $6000.00 to be the new city hall. The difficulty of separating the function of church and state in this area will be more evident in our case studies.

Local residents seem unaware of the nature and number of potential disaster threats that have been thrust upon them in the past. Since the area was settled (1849), residents have suffered numerous floods, high wind storms, mudslides, grasshopper attacks, blizzards, and droughts. Farmington's previous most devastating mudslide was on August 23, 1923 when a cloudburst created a mudslide killing five people camping on the outskirts of the town. Six homes were damaged and over 170 acres were covered with mud. A rockslide also impacted the town in 1861, but with little physical or social consequences. Bountiful has had 15 floods since 1908, the most recent in 1977 (in which two occurred that year) and 1980. Farmington has had 17 floods since 1901, the most recent being in 1969. In addition, we should add that neighboring Salt Lake City has had 69 floods since the turn of the century and 22 floods in the last 10 years.
Yet, most of these impacts are generally not major. That is little loss of life and minor property damage occurred (at least in the eyes of the victims and some public officials) and such consequences seem to pass quickly from the collective communities’ memory.

We should add, that like other major United States cities in the west, the Salt Lake City area is next to a major earthquake faultline. In fact, this line runs through Davis County. A major earthquake in the area would not only cause great damage, but also set off further land or mudslides (or avalanches in the winter). Thus, a major disaster is just waiting to happen in the area. Since the Mormons have settled the area, however, no major earthquake has been recorded.

The event under study occurred during the spring of 1983, culminating in a series of impacts in the area on the weekend of May 30th. Davis County was one the most severely hit counties in Utah due to both flooding and mudslides. Over 10 million dollars worth of damage occurred in Davis County. The mudslides resulted from a number of factors. First, the Wasatch Mountains, which are just east of Davis County (in fact Farmington and Bountiful rest at the bottom of these mountains) had accumulated record snowfalls that winter and during spring, very little of the normal melting had started due to cooler than average spring temperatures. Thus, when the temperatures did begin to rise, the soil soon became saturated with water, and there was more snow than usual to melt. In addition, the late May high temperatures in the area dramatically increased the melting process. For example, on May 27th the temperature was 67 degrees, or eight degrees above average. Such conditions are conducive to flooding and/or mudslides.

Davis County officials were aware that a possible flooding problem was in the making, but minimal efforts were undertaken between January and mid-May (much unlike the planning and preperation taking place in Salt Lake City and Salt Lake County during the same time). In addition, preperation efforts that did occur were
directed toward floods, not mudslides. During the previous year, LDS Church officials started warning its members in these communities to begin preparing for a general disaster impact. According to Church officials, these warnings were generally ignored.

The Davis County Cases

Since the mudslides, federal, state, and county funds have been obtained to build drainage basins and other similar structures to alleviate flooding and channel potential mudslides. Without a doubt, these measures spared the county a great deal of physical damage and possible social consequences during the spring of 1984.

In the city of Farmington, Utah, two distinct emergent organizations developed. One was much more ad hoc in nature and in essence commanded the disaster response. The other, run by the local civil preparedness director, had very little directly to do with the disaster situation except for monitoring emergency communications. Neither organization had a disaster plan, although the local civil preparedness director had an idea that he should call together an EOC, which is standard operating procedure for any local director.

On May 27th city officials were certain that a serious flooding problem could exist in the city as the run-off water from the snow in the mountains continued coming down creeks. In fact, one part of Rudd Creek had gone over its banks in the neighborhood of the block of 600 North, but the city organizations for the most part were still involved in their routine jobs. The only exception was that a member from the fire or police department would at times check or watch the waters to see if any surges in the water flow could be detected. In addition, the city had started sandbagging a few areas, but much of this activity had been organized by the LDS Church.

Sandbagging activity heightened the next couple of days, and by May 29, the city and related volunteer organizations started to focus their work on sandbagging larger
areas of the city. Specifically, the Department of Public Works (i.e. its four employees) and volunteers obtained through the LDS Church spearheaded these efforts. This is not the only case of large numbers of people volunteering their time to sandbag, especially during a holiday period. This phenomenon was seen in Salt Lake City (Quanantelli, 1984) and Fort Wayne, Indiana (Phillips, 1984). The outcome, however, was that the hard work and organization was in vain since a flood never materialized, but rather a land and mudslide. As one local official dryly stated, "Sandbags do not stop mudslides." Thus, when the slide occurred on 7:30 p.m. on May 30th, the city's operations (and residents) shifted from flood control to mud control.

The impact in Farmington damaged 33 homes and destroyed 12 houses, affecting over 400 residents of the city. From the impact resulted two emergency period emergent organizations. First we will discuss the Emergency operating Center (EOC) that was formed by the a county civil defense official, and then we will discuss the ad hoc city EOC managed by city officials.

The County Emergency Operating Center

Career Since the city and the county had no disaster plan, much if not all that was put together in this situation was emergent. In the case of the County Emergency Operating Center, one of the main county civil preparedness officials knew that he was responsible for activating the county EOC, and that the location of the center should be located in the basement of the Farmington library where the county civil preparedness offices are located (in retrospect, considering the hazards of flooding and landslides, a basement was not a good selection for the EOC). Soon after the impact, the county civil defense people were set up in the EOC and started assembling other members on an ad hoc nature. Within 12 hours after the time of impact, the EOC was considered fully staffed. This included two members from the highway patrol who aided in coordinating roadblock efforts, a member of a geological office, a key city
official who served as a liaison for the city in the County EOC, and a volunteer radio organization.

For one week members of the county EOC monitored the situation. Apparently that is all they did. The members of this operation were not involved for the most part in the daily operations of running the disaster management aspect of the disaster. They had very little input in the city’s emergent organization. In fact, the city’s emergent organization took control of the response. This is because the two main slides occurred within the city limits of Farmington and Bountiful, thus city officials in those cities made sure they were in charge of the situation, and nobody else. In fact, some of the members of the County emergent organization reported feeling isolated totally isolated from the whole situation.

Characteristics We have already mentioned the organizations represented in this EOC. The organizations represented were located in three different rooms. One room consisted of the county civil preparedness people, who were “coordinating” the activities and the flow of information to and from the County EOC. In another room, representatives from the city, county, and state governments were gathered. This room had phone lines and maps for use in the crisis, which as it turned out were never used. In the third and final room mobilized for the EOC, members of a local radio group were located.

In regards to the hierarchy and division of labor, one person was in charge, but there was little for him to direct. Members of the various government agencies exchanged information with him and vice versa but this was the extent of external contact. The director was basically in charge of accumulating information, but that was not really being used for any decision making or coordinating purposes. The information accumulation did mean, however, that internal communication did occur between most of the organizational representatives at the EOC. Yet, the radio operators in the third room were isolated and had no real contact with the others. The radio
operators' function was unclear to the others since the radio operators were perceived as contributing very little to the EOC. That is, no one really knew what they were doing or how much information these people were obtaining and/or receiving. In retrospect, some officials realized that the real action was at the city EOC, and the County EOC was doing in essence nothing to speak of in regards to the disaster situation. Some believed that the whole EOC was isolated from the situation. We must concur with these impressions. In addition, some believed their placement at the County EOC was politically motivated and that their skills would have been more more useful at the city EOC.

Consequences For a number of reasons, including the situation of powerlessness at the county EOC, some members of the county government were distressed at the relatively minor role they played in Farmington (and Bountiful). In fact, city officials mentioned in their interviews how some parts of county government had tried to take control of the situation in Farmington. However, the city maintained basic control (through their own emergent EOC) of the operation during the emergency period. Perhaps an equal source of frustration of county officials who wanted to be involved in the mudslide response, was that the major slide occurred basically within the corporation limits of the two major cities in the county. Technically, the county had no legal responsibility to take authority of the disaster.

Since the disaster, some key officials of the civil preparadness office have in essence been demoted (for not really being in charge of the situation), and county civil preparadness is now part of the sheriff's office. A Deputy sherrif is now in charge of county civil preparadness.

Conditions The lack of any type of formal disaster plan was one reason for the formation of the County EOC. What is of equal importance here is explaining why the city rather than the county was basically in charge in the Farmington area. First of all, the city had been monitoring the situation, however slightly, for the previous
couple of days. The county, on the other hand, was not as active in monitoring the potential flooding situation. This was especially true in the Farmington area. The city building, where the city EOC was to be established, was already the activity site of some organizational response by city organizations, groups, and volunteers. This included some of the coordination between the street department and the LDS members volunteers engaged in sandbagging procedures. During this time, informal networking was already underway laying the foundation for the structure for the city EOC after the disaster occurred. Thus, when the disaster struck, the city already had an emergent process/structure underway to respond to the impact, whereas the county did not have a fully staffed EOC until the next morning. By the time the county EOC emerged and organized, tasks and domain had already been defined by the city EOC.

City Emergency Operating Center

Career The length of time the city EOC existed was 14 days. As we noted above, however, the structure of the EOC was already in the making a couple of days before impact. This was due to the slight preparation underway in the city for a possible flood. At the time of impact, personnel from the fire and police departments, and a city official all by chance saw the mudslide occur and were able to quickly take appropriate action. Police and fire personnel radioed the information to the dispatcher (who was located at the city building), and then started evacuating residents in the impact and potential impact zone. A city official, who had a city radio also in his car, barricaded the major road leading into the impact area. Meanwhile, other elected city officials and employees were all contacted via the dispatcher and told to meet at the city building. In addition, local high ranking LDS church officials were also contacted and were told that they should contact their church members to organize volunteers and be ready to obtain resources. Of course, some of the city officials were also high ranking local members of the LDS church, so the process of mobilization was facilitated by the dual roles of some city/church officials.
During the evening of the impact, these officials all met in the city building and started mapping a strategy. Since people were already assembled at the city building, a city official decided to establish a EOC at this location. In addition, we should note this was also the location of many resources, such as radios and heavy equipment. Various rooms were designated for different tasks. The mayor's office became headquarters for the operation. The police department's room became communication headquarters since it had many different types of radio equipment. The city council chambers became the meeting room for EOC officials.

We should add, however, that the actual structure of the EOC did not really become formalized or apparent until the next morning, when a meeting to coordinate totally the efforts of the various organizations/groups was called. Information from the meeting was then disseminated to the public. City officials also decided to suspend all normal duties of every city department. For example, the police department actually did not exist for at least a week if not longer in Farmington since they were doing other disaster related duties (although they were involved with others on security), and their headquarters were being used for other tasks. There was no city garbage pick-up for a week. The street department's tasks turned to dike building and mud removal (and if this involved a street, it was purely by chance). The area where heavy machinery was usually stored in the city building was used to hold and coordinate the volunteers organized by the LDS church. We should add here that not all the volunteers were LDS members, but the LDS organizational structure facilitated in mobilizing volunteers.

City EOC personnel also recognized the following morning that they could not stay awake 24 hours a day for the next week or two. Thus, they hired three individuals to each work eight hour shifts daily to deal with most decisions directly related to the disaster. After the first 12 hours or so into the crisis, officials wisely decided that better decisions could be made in this fashion. Thus a new ruling structure, based on
city government and to a lesser degree the LDS church's formal and informal structure, was created to respond to the disaster impact. This structure remained the same during the first week after impact. Daily EOC organizational tasks consisted of clearing debris, organizing and participating in a flood and mud watch in the canyons, and repairing electricity lines.

At the beginning of the second week some qualitative organizational changes occurred within the city EOC. Some of the everyday duties of city management, such as garbage pick up, were slowly re-started. Scheduled events within the city, such as church softball matches, resumed. Yet, much of the city EOC was still disaster oriented. The city EOC remained open on a 24 hour a day basis and various city and church officials met formally and informally on a daily basis to plan a response if another mudslide occurred, and to consider some of the early recovery tasks and priorities for the days at hand.

Beginning the third week after impact, the EOC no longer existed. In addition, the city building was not open 24 hours a day, but rather, office hours returned to an 8 to 5 basis. The police started their normal duties again. In fact, during the first two weeks of the disaster, there were only two phone calls to the police department on police related matters. None of these calls were in any way life threatening, and in fact the police believed that these calls were not even police related. By the end of the third week, except for the street department and the LDS volunteer effort for cleaning debris (coordinated by the city and LDS Church), the daily routines of city government returned basically to normal.

**Characteristics** Just prior to the impact, many city departments (along with other levels of of the county and state government, and the LDS church), were slightly engaged in disaster preparation activities such as flood watches (i.e. local fire and police), sandbagging (LDS organized volunteers), and making sandbags (street department and LDS volunteers). After the impact all these and other organizations
and groups were temporarily organized into an emergent organization. That is, a very obvious creation of new tasks and structure occurred. As we noted earlier, fire and police evacuated potential and actual victims, watched streets, and secured the disaster impact and evacuated area. Looting, however was not a major concern. There were no major fires, no police arrests, and no parking tickets issued during the two weeks following impact. The police did not do normal police duties the first two weeks following impact, and the street department did not tend to streets but rather used their equipment to clear debris.

The city hired personnel to watch over the disaster activities. This is not the task structure normally in Farmington. In addition, the structure of the LDS church, through their efforts in coordinating volunteers with the city and obtaining other resources, and participating with the cleanup process, became part of the emergent structure. Normally, and legally, the LDS Church does not have such formal networks with city structure. Thus, the usual formal lines of separation of church and state became dissolved. However, such a distinction is often blurred at times in the area anyway due to the high number of LDS Church membership in the area.

Normally, Farmington's mayor and city council duties are considered part time, but all worked full time duty without any extra pay during the crisis. This group, along with other city officials, met every morning at 8:00 a.m. to plan for the upcoming day. Activities of the national guard and a local air force personnel (primarily for debris clearing in the area and flood watch via the air) were integrated into the Farmington EOC. In otherwords, the city's main tasks during this time were oriented toward the health and safety of its citizens in time of disaster. Another normal task of the city, social welfare, was handled by the LDS Church. Consequences Overall, the operations at the EOC ran smoothly. There was one major conflict, however, just following the mudslide and evacuation of residents. A fight developed between the Red Cross and LDS Church regarding who was to be in charge of the local
evacuation shelter. In this case, the shelter at the designated local school was the Red Cross' responsibility, but according to one ranking Red Cross official, the Red Cross personnel in Farmington "acted like assholes", which resulted in the Red Cross actually being thrown of the shelter. Although the Red Cross personnel did not act in an appropriate fashion, much of their behavior was due to the fact that LDS members firmly believed that it was the church's duty to tend to their members, and the the Red Cross had no right being at the school (which was wrong). A meeting between higher level LDS and Red Cross officials the next day resolved the matter and Red Cross members (a new crew) were sent back into Farmington. Both organizations firmly believe that both parties were equally at fault. Since this incident, the LDS Church's welfare and disaster related organizations in disaster situations have kept a much lower profile, and the Red Cross is changing their training methods.

In addition, the LDS Church had been promoting a secular disaster planning/response organization which was actually underway six months before the impact. In towns such as Bountiful, there had been a little success in organizing neighborhood groups for disaster response. Much to the dismay of higher level LDS officials, Farmington residents have shown no such interest in this project.

In regards to the city EOC, clearly the LDS Church's pre-existing structure aided in the smooth running of the EOC. In fact, some local officials who are church members noted this and added that at times one could not differentiate whether a certain task or activity was a government/EOC activity or an LDS project. However, LDS officials in both Farmington and Salt Lake City expressed dismay that a merging of Church and State occurred. Currently, they are making efforts to downplay their presence in disaster situations where they are present. The secular disaster plan is one such example. Having unobtrusive identification at disaster sites is another (disaster services used to have baseball caps that said "LDS" on them).
Conditions No plans for a disaster response aided the emergence of the city EOC. Pre-existing church structure and friendship networks, along with the small size of the community, aided the relatively smooth operations of the EOC. Such pre-existing networks were also responsible for the structure of the EOC. However, not all citizens were pleased with the city's decision to quickly evacuate all risk areas, as some citizens believed they would have had time to recover valuable personal items before the mud and debris impacted their homes.

Due to the pre-impact activities of various organizations that the city and LDS Church were participating in, the city EOC was able to emerge and respond rapidly. Members of the EOC were prepared with the knowledge of where all types of resources could be obtained. This fact, along with that of the landslide was within the city limits, left little for the County EOC to do but sit back and watch, and be prepared to furnish resources if needed.

The Washoe Valley Case

Washoe Valley, Nevada is a small unincorporated village in the same county as Reno and Sparks, and is located 25 miles to the south of Reno. Just 10 miles to the south of Washoe Valley is the state's capitol, Carson City. Although the jurisdictional matters of Washoe Valley are connected with Davis County's seat of Reno, social and business contacts for the village are with Carson City. The area of the landslide is surrounded by mountains, and is often used by campers. The area of impact is not highly populated. In fact, there were 53 homes within the 17 acres of the effected area. Values of the homes range from 100,000 to 400,000 dollars, with each home being on the average of five acres. Thirty five homes were damaged by the impact and seven destroyed. One person was killed and five or six people injured.

The area of Washoe Valley (including Reno/Sparks and Carson City) does not have much disaster experience nor much disaster planning. Although a slight increase in planning was evident before the impact, this did not have a real impact
upon the disaster response. The area is set at the foothills of mountains, but there is no evidence that a major mud or landslide has occurred in the Washoe Valley area for over a century. In fact, the last recorded major landslide was from Slide Mountain about 150 years ago. This was the same mountain responsible for the recent slide. Since the valley and surrounding area is set in a desert area, potential exists for flash floods, but populated areas have yet to be impacted. Brush fires are the only major type of threat that does affect the area. Recently, one almost reached the corporation limits of Reno.

Like the Wasatch Mountains in the Salt Lake City area in 1983, the mountains by Washoe Valley were subject to the same conditions of snow, cold, and then heat and rains. All factors were very conducive to creating mud or landslides. At 12:15 p.m. on May 30, 1983, a massive amount of earth, snow, and other debris slid from the south side of Slide Mountain into the northern upper half of Upper Price Lake. From the combination of this initial impact, the slide continued to move downward into Lower Price Lake, and then followed the path of what was Ophir Creek. From here, a deep layer of rocks, mud, and debris up to 500 feet high rolled through Washoe Valley cutting a half mile swath and continued into Washoe Lake. Some of the debris from the initial slide traveled a distance of over 4500 feet into the valley.

Career. Since we are dealing with a non-emergent situation, there is no emergent group or organization to discuss. There are, however, organizational responses and other events that occurred which are important to document so we can obtain a better understanding of non-emergence and the cross-societal response in disaster.

When the landslide occurred, the first authorities on the scene were from Carson city. The fire and sherrif personnel could only aid those on the south side of the landslide due to the debris from the slide. However, there were other victims, but the authorities were unsure whether to respond because some legal questions arose as to whether they could since the mudslide hit along the county line.
Within 30 minutes after the impact the Washoe County fire department arrived at the northern part of the slide. Apparently the officials who arrived did not want to make major decisions until the designated disaster coordinated arrived or could be contacted. The official county authority arrived about an hour after the impact, and said that he was in control (which according to the county's disaster plan, was correct).

However, much of this person's time during the first 12 hours in the field was not as much dealing with the disaster as it was dealing with the press (by his own decision). Thus, certain key decisions were not made as explicitly as what could have been, and many other organizations at the scene were working on their own with no type of coordination (in fact, some believed that the authority's main purpose was to receive media attention - for example, after a recent aircrash in the area, this person's name was visible throughout the press).

A major problem not only during the first hour after impact, but during the first couple days after impact was that communication between organizations (especially the main authority's station at the disaster site) was virtually nil. One problem was due to the fact that different emergency organizations operated on different radio frequencies. Secondly, most telephone lines (with one important exception) did not work in the area and leading to Reno. However, four phones from a nearby school were operating and were kept open for direct communication to the officials' in Reno.

One situation which exacerbated the communication problems was that the person in charge was to remain at his/her main office in Reno (i.e. be at the EOC) and have a field post set up at the disaster site with other officials. However, the official in charge ran the situation at the field office (thus making the EOC in the field) and was in the situation of not being in contact with the main office in Reno. Those in Reno actually had a better picture of what was happening than those out in the field who
were isolated from most communications from other organizations. These factors, (poor communication, too much media attention) led to a poor disaster response.

Other organizations, such as the Red Cross and Civil Preparedness arrived later in the day. These tended to their own pre-designated tasks with little if no input (or output) from the person in charge. Some local search and rescue (SAR) groups also came to the area to help and started their tasks without contacting proper officials. Later, these groups became coordinated with another local organization that had a helicopter. Although no humans were found, a couple of horses were located by the groups and pulled from the mire by the helicopters.

The state civil defense activated their headquarters the evening of the impact and maintained a ready status for close to 24 hours. Officials at the state office seemed surprised that the Washoe County people did not really request the State's resources, and were equally surprised that county officials did not want to declare a disaster.

Essentially, the first day of disaster ended with confusion and little coordination. Fortunately, the casualties were limited to only one fatality and a couple injuries. Potential existed for much greater individual harm. In addition, nearby camping sites less than a mile from the slide area were with at least partially full during the Memorial Day holiday.

The following day, the disaster authority isolated him/herself from the press at the disaster site and had associates deal with the press and others. Organizational communication improved. However, other than keeping curious site-seers out of the area, there were no other major tasks that needed to be performed.

A week after the impact, a Disaster Impact Center (DAC) was instituted by the local Civil Preparedness office. Here victims could contact disaster and welfare agencies from the county, state, and federal level in regards to questions regarding recovery. This was just a one day affair. According to the disaster plan, setting up a DAC is normal procedure after a declared disaster. Although no disaster was declared by
officials, county officials believed that the needs of the many victims could be met with the DAC. Since plans for a DAC already existed and was executed as such, we cannot consider it a case of emergence.

**Characteristics** Although there were between 15 to 20 organizations or groups active at the site (nobody really knows for certain), there was only a minimal amount of informal intra-organizational activities and really no formal intra-organizational integration. The only exception perhaps, was the designated disaster authority making sure that everyone else in the field (including the press) knew who was in charge of the situation.

**Consequences** Due to the lack of communication between organizations, and the concern with the press, the overall disaster response was not as good as it should have been. Many expressed relief that the disaster was not any greater. Officials hope that changes in communication procedures and further specification of the location of the EOC can be made for future reference.

Also, county officials were active in preventing the disaster being defined as such, and having the impact (i.e. the non-disaster) defined as an avalanche rather than a flood or mud/landslide. The reason why the mudslide was not declared a disaster was apparently to avoid involving state authorities or federal officials. Although such an ideology is prevalent in the Western part of the United States, those involved with the disaster believed the non-disaster definition was to prevent outsiders from observing the disaster response. The motives of some officials in Washoe County were more noble for how the "disaster impact" was defined. If the impact were defined as a flood or mud/landslide, none of the victims' insurance would have been valid since such incidents were considered "acts of God". By defining the "disaster" as an avalanche, the victims were guaranteed compensation. The Nevada Insurance Commission (who were also at the DAC) stood behind the officials' decision.
Conditions Often, the prevention of communication or poor communication is an important condition contributing to collective behavior situations. However, in this case, such a condition prevented any type of emergent behavior. Secondly, unlike our other United States' cases, the quality of the pre-existing networks was poor. Thus, no critical mass of social networking was present at critical leadership areas or occurred to encourage an emergent process.

In the next chapter, we present the case studies of post disaster emergence in Sweden and the United States.
CHAPTER FIVE - RECOVERY TIME EMERGENCE CASE STUDIES

In this chapter we present the four case studies from the United States and the two from Sweden. As with the chapter before, we use the "C-model" to present our data. First we discuss our Swedish cases and then our American cases. With all the Swedish cases and the first two United States cases, we used the same questions in the field. The last two United States cases are from similar recent DRC research.

The Swedish Recovery Time Cases

Soon after the impact, activities by Swedish officials and citizens were underway in responding to both the immediate needs and the long-term concerns of recovery. Although both of the Swedish emergent organizations we discuss formed during the emergency time period, their task orientations were toward recovery. Thus, we call these cases recovery period emergence.

The Central Consultation Group

Career The foundation for the Central Consultation Group (and others pertaining to the recovery period) was precipitated by a cabinet minister's statement. Three days after the impact, this state official asserted that no family affected by the landslide would face any economic loss. This is, the Swedish government would lend economic assistance to the victims. This included new permanent housing at no cost to the victims. Thus, parts of the Swedish government in Stockholm became committed to the recovery process.

Local and state officials decided to hold a meeting regarding recovery in Stockholm on December 22 (1977). From this meeting came the Central Consultation Group (CCG). This ad hoc organization consisted of state representatives (comparable to
federal representatives in the United States) and officials from the Gotenburg area. A key decision made at the meeting was that local representation (if not actual decisions) would be important since officials from the Gotenburg area argued that they were more familiar with the wants and needs of the affected community.

Another meeting among these officials was held on December 30th along with another emergent organization, called the "Local Preparation Group". The Local Preparation Group consisted of various organizational representatives from Gotenburg. This emergent organization was to serve as a liason with the CCG in aiding state officials decide the best course of action for victims in Tuve.

In January, the CCG started to take on a more formalized appearance, and also defined its relationship and how county and city government would be part of the emergent organization. By the middle of this month, the CCG began its own efforts, albeit coordinated with other organizations, to find the disaster victims permanent housing.

As the settlements for the victims increased through the year of 1979, the need for the CCG decreased. By early 1980, when all settlements were finally decided for the victims, the CCG ceased to exist.

Characteristics Since money for the replacement of homes and other property was to come eventually from the state government in Stockholm, logically the state government had input and leadership within this organization. Officials from agriculture, finance, and housing posts all represented the state government, local government, and local insurance companies. In addition, the local preparation group had representation, and membership of this group consisted of many of the same people/organizations already in the CCG. We can classify the CCG as an emergent organization. Membership to the CCG was based on one's position in other disaster relevant organizations.
Consequences The CCG eventually achieved its goal. That is, it aided in giving victims fair retribution for damages due to the landslide. However, a struggle occurred. Not all victims were happy with their settlements (for a detailed account of this situation see Ekberg and Lustin, 1982). In fact, conflict over the settlement process almost destroyed the citizen group effort by victims to obtain money for recovery. We will discuss this emergent organization and its corresponding emergent groups later in this section.

About a year after the impact, the first families started to move into their permanent housing. Some were put back in their original neighborhoods, while other victims were placed in what was perceived as better or worse areas than where their original homes where located. Although this problem was due to a housing and land shortage in the Tuve area, victims chose to ignore such conditions, especially if they were placed in what they perceived (and often correctly so) a worse neighborhood. However, by August, 1980, all accounts between the government and victims were settled and all families were in their new homes.

Conditions The cabinet official that guaranteed the victims that they would face no economic losses due to the impact played a role in forcing the government to come up with a plan and an committee to put together such a plan. The CCG was the answer to the government's puzzle.

We should also note that of at least equal importance, during the first month following the disaster many emergent organizations and groups were coming into existence. Apparently, the Swedes seem to construct ad hoc committees when any such issue arises as a part of their efforts to promote democracy in their society. In fact, the CCG was part of an emergent organizational set with connections among other emergent groups and organizations. Thus, there was a strong degree of "structural conduciveness" as discussed just earlier that would explain the emergence process above and beyond the minister's statement regarding aid to the victims.
The Local Consultation Group

Career Within a couple days after the disaster neighborhood groups from the affected area started to meet and/or form to begin immediate and long-term plans for disaster response. On the Tuesday six days following the disaster, the Swedish automobile company Volvo offered resources including a meeting place, that allowed members of existing and emergent neighborhood groups to meet. We should note here that Volvo had a major factory in Tuve, and one of the affected neighborhoods consisted primarily of Volvo employees and their families. During this initial meeting, representatives from three different affected neighborhoods along with Volvo representatives decided to form the Local Consultation Group (LCG). This emergent umbrella organization was to serve as the representative body for the local groups' disaster recovery efforts.

The day following this meeting, a group from another affected neighborhood held their first meeting. This group was only ephemerally connected with the LPG. On December 8 at 10 o'clock in the morning another meeting was held at Volvo to further define the purpose and tasks of the LPG. Two days later another meeting at the same location was held. Not only were the neighborhood groups represented, but Volvo’s personnel director, a banker, and an insurance company’s lawyer was also present. Also, the one peripheral neighborhood group joined at about this time. Later, this group would be a source of intra-organizational conflict. By mid-December, the LPG’s structure was in place, its tasks defined, and the negotiations for economic recovery of the disaster victims started.

During the middle of these negotiations, conflicts arose between the LPG and governmental offices over how the victims were to be reimbursed. Later, a more severe conflict erupted within the LPG (as alluded to above) over how resources, especially land for building new homes and who was going to get to remain in Tuve (a
property shortage for building existed), were to be distributed. This conflict, although eventually resolved, almost led to the demise of the LPG.

The main part of these negotiations occurred from January 1978 until the early part of 1979. In December of 1978 the first group of victims were reimbursed and moved into their new homes. Settlements with the families ended in early 1980 as the last of the victims moved into new residences. With this, the LPG ceased to exist.

**Characteristics** This emergent organization was created by various existing and emerging neighborhood groups. Three neighborhood groups were actively involved with the Local Preparation Group's (LPG) activities. The chairman of the groups was from one of the neighborhood groups, and two representatives from each of the three neighborhood groups sat on the board. Another neighborhood group was ephemerally involved. We should add here that membership in the LPG and even its origins were based upon membership in a neighborhood group.

Although a formal structure existed, informal networking was equally important in the organization's decision making process. Apparently, Volvo had some degree of influence in this respect. Along with the other organizations mentioned above, the LPG also had contacts with the state, county and city government, housing authorities, and the various emergent organizations that existed after the disaster, including the Central Consultation Group.

**Consequences** Generally victims were placed in new permanent housing within a year to two years after the landslide. In this respect, an argument for success by the emergent organization can be made. Success, however, was not total. Victims were upset over a number of individuals' settlements. This ranged from the location of the new home to perceptions of unfair reimbursement. The latter was especially true with those whose homes were either built or remodeled just before the landslide. Conflict over these issues reached the stage where the local groups and the LPG group almost
disbanded. This did not occur, and the LPG continued to exist until all housing matters were settled.

Conditions The needs generated by the disaster promoted the formation of some neighborhood groups and the re-starting of others, especially in regards to having some group interaction with the Helpcenter in arranging the victims' return into their homes to collect possessions. The victims also realized that some form of central planning was needed to coordinate the neighborhood groups' activities to deal with future negotiations with the State.

Volvo aided in the emergence of the LPG through offering a number of different resources (e.g. a place to meet, personnel, prestige). On the other hand, there were few if any pre-existing networks between existing or emerging neighborhood groups. This was true not only among the groups themselves, but also with linkages between the groups. The disaster impact and subsequent meeting led to the emergence of the networking among and between group members at all levels. Furthermore, ecological factors did not seem important. Thus, we see structural stress, structural strain, and the availability of resources as important conditions leading to the emergence of the LPG.

Now we turn to our four United States landslide cases. First we look at two cases from Utah which were analyzed with the same data gathering procedures as were used in Sweden. Next, we include two other cases of emergence from similar research procedures in order to broaden our comparisons.

The United States Recovery Time Cases

Farmington

In this case there was no post disaster emergence. There was an attempt for neighborhood organization by an "umbrella" disaster emergent organization located in Bountiful, but such efforts in Farmington failed.
Career About three months after the impact, an umbrella SMO loosely called the South Davis County Emergency Planning Committee approached neighborhood, governmental, and church leaders (who often were the same people serving different roles) to form neighborhood groups coordinated with local government in order to prepare and respond to future disasters of any type. However, no such interest was to be found in the town, especially among the neighborhood, grassroots organizations.

South Davis Committee members were puzzled with the lack of grassroots response in Farmington. First, the leaders of the umbrella SMO were well respected civic leaders in the county (i.e. local government, church) who were willing to donate their financial and time resources. Secondly, the LDS Church strongly supported this non-church activity (in fact, many of the promoters were in the LDS Church, some holding high Church positions). To facilitate the drawing of geographical divisions for purposes of planning, the LDS Church format of wards and stakes were borrowed. Although Farmington has a "community disaster team" devised by the umbrella SMO's efforts, this team only exists on paper. No grassroots or neighborhood groups ever emerged.

Characteristics Such lack of disaster and emergent activity clearly reflects the citizens' lack of concern over disaster issues even after the landslide. Officials in the LDS church who are important in the Church's "spearheading" efforts note that those in the Farmington area are also often negligent in the spearheading process. Spearheading is the practice of storing enough supplies such as food and clothing to be self-sufficient for one year. Thus, it is apparent that any type of value system among the citizens pertaining to disaster and disaster preparation, even during the year following the impact, is lacking.

Consequences Although Davis County governmental, church, and disaster officials now clearly recognize the disaster potential for the area and are taking steps
to rectify the situation, local citizens in Bountiful see no need to take care of social disaster needs.

**Conditions** There are a number of structural reasons why emergence did not occur after the disaster in Farmington. First, the LDS Church took care of many of the needs of the disaster victims through direct assistance. Also church members were directly helping victims (who were not always LDS members) through actions such as rebuilding homes with free labor. Thus, unlike other recovery situations after disaster, there was no form of conflict between victims and others (e.g. authorities or insurance companies) in rebuilding.

Secondly, a couple of months after the landslide, basins were constructed out of concrete to force the flow of a mudslide out of residential areas. Thus, many citizens believed that even if a major mudslide were to occur, they would be protected by this feat of engineering.

Finally, the whole construction of the umbrella SMO is very top heavy. That is, the impetus for emergence was not coming directly from effected neighborhoods, but rather being "forced" upon people in a very conservative community of people who do not like to be told always what to do - even if those orders are from the LDS Church.

**Bountiful**

As we described earlier, Bountiful was effected in a similar fashion by the landslide both physically and socially. Yet, unlike Farmington, Bountiful responded to the effects of the disaster by being the base of the area's umbrella disaster SMO and being the source of at least three or four existing neighborhood disaster groups.

**Career** Six months before the slides in the area, LDS Church members who were prominent in city/county activities, believed that a non-LDS related organization needed to be constructed to facilitate and integrate neighborhood, city, and county emergency response. Initial efforts were lead by a Davis County medical doctor.
Illnesses and busy schedules after initial planning and organizing put the whole process on hold by the first part of 1983.

The slides gave these officials a chance and reason to reactivate the idea of forming the "South Davis County Emergency Plan Committee". Since reactivating soon after the slides, this emergent organization based in Bountiful has experienced some degree of success. It received much media attention and has given many public presentations on emergency and disaster planning in both Davis County and neighboring Salt Lake County (e.g. Salt Lake City).

One of the organization's most recent accomplishments is publishing a 12 page disaster manual and having it placed in every phone book in Davis County. One booklet exists for South Davis County, and the other for North Davis County.

At least four neighborhood emergent groups formed in Bountiful due to the organization's efforts, although similar cases of neighborhood organization are hard to find elsewhere (e.g. Farmington). The northern area of Davis County was the main focus of neighborhood organizing in the summer of 1984.

Characteristics On paper the local neighborhood groups and especially the emergent umbrella organization in Bountiful seem to have a high degree of formalization, including such specific characteristics and specific leaders, hierarchy, and division of labor. In reality, this is not the case. Actually there are few core members at each level, with the core members of the neighborhood groups making up the core members and leadership for the umbrella organization.

The umbrella organization, however, is active, with its core members reaching out throughout both Davis and Salt Lake counties to inform the public on emergency and disaster related issues. This task has been well recieved. Such programs are facilitated and arranged through the informal networking process via the LDS Church. Although the church is not an official arm of the emergent organization, its influence is prevalent.
Although the emergent umbrella organization is active, the neighborhood groups apparently are not. The neighborhood groups rarely meet and perhaps suffer because their own leadership are also the key leaders of the umbrella organization.

**Consequences** The impact of both the umbrella SMO and the existing neighborhood emergent groups are difficult to gauge at this time, since all their efforts were relatively new at the time of our follow-up data gathering trip. We can assert, however, that the umbrella SMO has experienced some success in contacting and making presentations throughout the area to various clubs and organizations and being featured in the media. Yet, their ability in generating neighborhood emergent groups, except in Bountiful, has been limited.

The neighborhood groups that exist rarely meet and for the most part exist only on paper. When compared to other newly emerged post-disaster groups studied (Quarantelli et al., 1983), this is the opposite of what is almost always seen. Yet, these neighborhood groups, due to their minimal meeting and slightly increased awareness over the rest of the populous, are thought of as being much better prepared than the unorganized neighborhoods.

**Conditions** There are a couple of reasons why neighborhood groups and the emergent SMO occurred in Bountiful. All are interrelated. One reason is related to the social effects of the slide. The overall impact in Bountiful was greater than in Farmington, with 1300 residents evacuated due to debris or water in residences (compared with only 400 in Farmington). Yet, we must add that a on proportional basis when considering the population of each town, Farmington was only slightly more affected than Bountiful. Thus, the impact led to a greater social strain upon both city and individual resources. For example, the first night following the impact at least 1000-1200 of the evacuees started staying with friends and relatives in the city - some staying for extended time periods. Hence, the city and its residents were
inconvienced in many ways and to a greater degree than those effected in Farmington.

Secondly, the initiators of the umbrella SMO lived in Bountiful. Thus, not only were these people active in the umbrella SMO, but also in their own neighborhood groups (i.e. they were setting good examples). In addition, these organizers and leaders were both respected professionals (e.g. doctor, corporate lawyer) and high ranking local lay Church (LDS) officials (e.g. current and/or active stake president, bishop). Such local leadership was lacking in the Farmington case. We now turn to other recovery time emergent group cases from our United States data.

The Bay Area Case

The city under consideration here is one of the many high population density, middle to upper-class bedroom communities in the San Francisco area. Although an overall awareness exists among citizens and local officials regarding potential disasters (i.e. earthquakes, floods, brushfires, mud/land slides), there exists no real concern or planning activities by either party regarding such threats and hazards.

Career. In January of 1982, a major mudslide damaged or destroyed a large number of homes in this community, killing two and injuring many others. Just following the impact, and due to the impact, victims/neighbors mingled and communicated for the first time, leading to what became an informal “residential relief organization”. Although this initial emergent group aided in initial recovery services for the victims, many in the affected area were distraught over the leadership of this group and frustrated with the "pitifully inadaquate" local disaster services.

Thus, a meeting was called to organize a new group to focus upon aiding the recovery process. During this meeting of victims/neighbors, many who were getting to know each other for the first time due to these meetings, a president was informally designated. A decision was made that the main task of this new group would be to initiate long-term assistance for the victims (e.g. rebuilding homes)
through taxation of the local residents, and to maintain the rights of slide victims to rebuild on their own slide-prone property. The group occasionally held meetings when it was time to make a group decision. After a year of existence, the group finally decided to incorporate. By 1983, the group had some degree of success. Residents were allowed to rebuild their homes on their own disaster prone property. However, a local tax issue which would have given funds to aid victims failed at the ballot box.

**Characteristics** We can classify this entity as an emergent group. That is, its members were acting in their roles as neighbors and victims rather than within pre-existing organizational roles. Furthermore, we should add here that no pre-existing social networks existed in this case. That is, the impact itself created a situation where victims/neighbors who previously did not interact, did so in order to remedy the physical and social impact of the slide.

The structure of the group was informal. Although the group did take on some degree of formalization by incorporating, this did not occur until over a year after emergence, and was done only for appearance (i.e. to interact better with the organizational environment) rather for any internal functional purpose. The group's members consisted of upper-middle class married couples in their early 30s to middle 40's. Although all victims were considered members, a small active core did most of the main group tasks, including acting as boundary personal in contacting local and state officials, and interacting with the media.

**Consequences** Essentially, the group was successful in facilitating recovery for victims although not all the goals were met. One reason why the group was able to succeed with one of their tasks (i.e. being able to rebuild their homes on their property on the hillside) and gain public support for this aspect of their cause, was that they had good access to the local and regional media from the beginning of their existence. Thus, the issue was continually kept in the public's mind. In addition, the
group was able to gain support from local volunteer agencies, churches, and service agencies. Access to state and federal agencies, however, was poor.

On the other hand, the group was not able to obtain support for their ballot initiative to raise taxes for recovery assistance. Not only did this issue split the community, but conflicts emerged within the group over possible tactics to obtain public support. When the tax issue was defeated, some members left the group. However, key core members and many others maintained their memberships and activities. With California's recent history of a "tax revolt" (i.e. Proposition 13), there should have been little surprise that the tax issue failed.

Conditions Before the disaster, residents in the impact area were upset over changes in zoning laws that would increase residential growth in their neighborhoods. Some residents, acting individually, would attend zoning meetings. After the slide, the same people who attended these meetings (but who really did not know each other) were the ones who became active core members in the group.

Thus, the zoning issue, coupled later with the disaster impact, facilitated discussions among neighbors for the first time. From these spontaneous discussions following the slide emerged informal networks which very quickly led to the emergence of the group. Thus, we see evidence of structural strain and some stress, and resources (especially economic) among the victims. The other factors were not as evident.

Ocean Side Case

Our final case is an emergent group that formed in a suburb along the ocean south of Los Angeles. The community, especially the neighborhood under consideration, rests on hillsides overlooking the Pacific Ocean. A diverse background of residents live here (e.g. bankers, teachers, artists) and were effected by the slide. The area has a reputation as to being an "art colony", which adds further diversity and color to the community. The area's residents and officials recognize that earthquakes,
forest and brush fires, and mud/landslides are major threats in the community, but little has been done about them.

On the morning of October 2, 1978, a large section of a hillside slid loose from a hillside and went into a populated area including a canyon. Initially, over 200 residents were quickly evacuated from their homes. Others later fled as three other slides occurred. In all, 69 homes were effected, with 21 of these destroyed and another 26 deemed uninhabitable due to their location of being effected by further potential slides. Despite extensive physical damage, there were no deaths and only one injury from the impacts. Damages, however, were estimated to be over $15 million. Since the landslide was considered "an act of God", insurance companies did not have to reimburse the victims.

Career Originally a homeowners association existed in the neighborhood effected by the landslide, albeit it started 30 years ago when the area was being developed. At the time of the disaster this organization existed only on paper. Membership was obtained when a home was purchased. A set of by-laws also existed. Very infrequently, a few of the neighbors would gather for a "meeting" but, for the most part, the association was defunct.

A couple of days after the landslide, victims and neighbors met for purposes of mitigation and recovery. One order of business of this meeting was to adopt the old homeowner's association by-laws. Furthermore, officers and a board of directors were elected to represent members. All the officers and board members were well known in the community and had important organizational contacts within city, state, and/or federal departments. Basically, officers elected were nominated and selected because of resources they had to offer this new emergent group. Such resources included organizational contacts, ability for public speaking, and technical skills.

Early group activities focused upon "getting back on the hill". That is, trying to get the main road re-opened that went to the specific slide area, getting the hill
stabilized, and attempting to receive some type of financial aid for the victims (e.g. rent subsidies, building funds) from state or federal offices since insurance companies ruled that the nature of the slide was not in the victims' policies.

Generally, the group's tasks were successful, as most residents did get back on the hill. The emergent group rightfully took most responsibility for the success. Once distribution of monies for rebuilding was finished and almost all the residents were back in their homes (some rebuilt) 14 months after the impact, the group went dormant. That is, the laws and structure still existed on paper, but no further meetings were held. However, if another landslide (or another issue) occurred, the group could be mobilized.

Characteristics The membership of this emergent group consisted of about 106 households. Soon after emergence, two to three dollars were collected from each household for organizational purposes. Specifically, much of this money was used to publish a monthly newsletter which served as an important devise in informing all members of activities and issues, and aided in maintaining group solidarity. Although talk of incorporating existed, it never happened.

We should also note that there were no pre-existing networks. As a whole, however, the disaster impact brought together this diverse group of over 100 households. In addition, people in this case were not joining due to other organizational affiliations, but rather because of their existence being effected by the slide.

Both a formal hierarchy (i.e. officers, board) and informal hierarchy (friendship cliques) developed. This resulted in group conflicts over some policy issues, but essentially did not detract from the group's main activities and tasks. In addition, 11 committees were formed by the group which served as their way of dividing tasks (i.e. a division of labor). These committees included: 1) legal, 2) city government, 3) finances, 4) grants, 5) engineering, 6) grounds, 7) rebuilding, 8) utilities, 9) by-laws,
10) communications, and 11) re-assessment. The chairs of these committees also reflected the active 10 to 15 core members of the emergent group. Although the group developed a wide horizontal structure, it did not operate in any formal, bureaucratized manner.

For the first few months after the impact, the group met once a month, they met twice a month until most residents were "on the hill". Meetings were held in either people's homes or a local church.

Initial external contacts were with typical disaster related groups or organizations. Later, local, state, and federal agencies became key contacts. One task with these latter contacts pertained to getting the area declared as a disaster so then the government agencies at all three levels could free funds for the victims' use. The group also had contact with similar landslide groups in the state. However, no umbrella SMO evolved, nor did this grassroots group contact or join any other umbrella organization.

Consequences The group was successful in getting residents back on the hill. This was aided through the hiring of two lawyers and having local and federal government officials support the group (including having the impact area declared a disaster). These factors facilitated an out of court settlement with the insurance companies.

Much of these activities of lobbying, hiring lawyers, and researching facts were aided with a fund set up by a local bank. Although the group did not have direct access to this $68,000 fund, the money was there when needed. Local bankers and later a minister were the officials that decided when money should be released to the group. The group also had their own smaller fund, totalling over $13,000. This amount of money was obtained from tree salvage in the impact zone, donations, and other fund raising activities. Out of this fund, $1200 was spent on phone calls (the primary source of the expenditure, $300), postage, grass seed, and other lesser items for group maintainence.
Conditions  The defunct homeowners association facilitated only to a minimal degree in giving the group some initial structure through the by-laws. However, the group that emerged after the landslide bore no real resemblance to the old homeowners association. Thus, what emerged was a new group.

Probably a key situation which reinforced the existence and activities of the group was the initial decision by the insurance companies not to reimburse the victims since the impact was considered an "act of God". The initial reluctance of the various levels of government to declare the area a disaster forced the residents into a situation where they had no money to rebuild their homes - regardless if it were to rebuild on or off "the hill". Thus, there existed a high degree of structural strain.

We should add, that although people in the impact area knew each other, we did not see strong evidence in supporting the notion that strong pre-existing friendship networks prompted the emergence of the group. This is not to deny the importance of the two friendship groups that were involved in the group formally or informally. However, these two small groups role was not really germane to the tasks of the groups. In fact, we can conclude that for the most part, pre-existing networks did not play a major role in the emergent process since most victims did not get to know each other until after the impact. As the group acquired resources for their various tasks, government agencies became more supportive. One this support arrived, the group greatly increased in prestige if not power which aided in obtaining their goal of "getting back on the hill".

In our next chapter, we analyze the similarities and differences with the emergence process in both countries, and attempt to explain why the similarities and differences exist. In addition, we take our findings and relate them to current debates within the area of collective behavior. As a final note, we briefly discuss how they contribute to the definitional changes of the concept "disaster".
In this chapter, we analyze the data focusing on our two key research questions, 1) why does emergence occur, and 2) are the conditions and process of emergence similar or different between the United States and Sweden? If our analysis were not based upon a cross-societal comparison, we could look at all the cases based upon our analytic framework of collective behavior and make our conclusions. Our cross-societal analysis, however, forces us to separate cases. Thus, as we elaborated upon in Chapter Three, we have based our research design upon Ragin’s (1981) suggestion for cross-societal analysis. That is, we first look at the general patterns within each society during the emergency time period, and then compare these general patterns between each society. Same format of comparison is then used for the recovery time cases, and finally the same format is used with the emergency and recovery time period cases combined.

The basis on which we make our analysis has been fully explained elsewhere (see Chapter Two). To remind the reader, they are 1) structural conflict (i.e. structural stress and structural strain) and 2) structural conduciveness (i.e. resources, networking, ecological factors). Furthermore, we also introduce into our analysis a concept called "overhet", which refers to value system of deference of authority, and plays a key factor in our cross-societal analysis. In light of our findings here, we discuss our analysis considering recent trends in collective behavior, SMO, and organizational studies. We also further discuss our assumptions of collective behavior in this section.
Analysis of Swedish Emergency Time Period Cases

Even though the Gotenburg fire department is considered the best in Sweden (both in terms of equipment and organization) and by law was in charge of the disaster, the department did not solely manage the disaster impact. Three spontaneous, emergent organizations evolved to deal with the situation.

With the Rescue Stations, a minimal amount of emergence was observed, and its main task was to serve as an organizational field headquarters to facilitate intra-organizational coordination. What is important to note in this case is that no such field headquarters are part of the Swedish Fire Law (i.e. disaster plan). Furthermore, after the firechief relinquished his control from the disaster, the rescue stations continued their existence and were subsumed under the Disaster Management Group (DMG), the emergent organization that ran the disaster response for about five days following the impact.

The DMG is a good example of an emergent organization and highlights the importance of differentiating between an emergent organization and an emergent group. That is, using the basic typology as described by Quarantelli and Dynes, we would have difficulty in capturing the subtle shifts in organizational structure. For example, a quick glance at the DMG would reveal that county government shifted its goals toward specifically disaster management for about five days. Thus, an argument could be made that it was a Type III or extended organization. From another angle, analysis shows that a shift of organizational structure also occurred, making it a Type II or extended organization. Yet, when these factors are combined, we find we have something different, not quite captured with the notion of a group. Although on a lesser scale, the emergence of the Helpcenter mirrored the structure and process of the DMG. However, we can also note that the DMG became the key emergent focal emergent organization for not only the two rescue stations and helpcenter, but also other private and public organizations aiding with the disaster response.
A pivotal occurrence of the whole emergent process was the fire chief giving up his authority at the disaster scene a couple hours after impact. It is also interesting to note that only after five days did the DMG willingly give authority over the disaster situation back to the fire chief. This process has important implications for our cross-societal analysis. We will draw upon this process later in our analysis.

Looking at the Swedish landslide and emergent cases as a whole, we can make some analytic conclusions regarding the reasons for emergence. A summary table (see Table 2) listing the conditions of emergence of all cases (based on our analytic framework) is presented on the next page. We suggest the reader consult this table while reading the sections on the analysis. We first list the Swedish emergency time cases, then the United States emergency time cases. Next, are the Swedish, then United States, recovery time cases. In other words, this table represents a summation of the key conditions that may lead to emergence and is derived from our case studies in Chapters Five and Six.

Although the fire department in Gotenberg was considered the best prepared and equipped in Sweden, the impact of the landslide created more problems than what the department could normally handle. Due to the nature of the impact and the difficulty of the social response, a high degree of structural stress existed. No degree of structural strain was evident.

We also find it important to note that another reason why emergence occurred was to facilitate the mobilizing of resources to respond to the disaster. This is an important, but subtle difference from the way mobilization of resources is usually used in the collective behavior/RM literature. That literature suggests that the availability of resources to be mobilized facilitates the emergence of an SMO. In the Swedish case, it was the need to mobilize resources, not the availability of resources, per se that facilitated the beginnings of the three Swedish emergent organizations.
### Table 3 - Summary of Conditions for Emergence

<table>
<thead>
<tr>
<th></th>
<th>Structural Conflict</th>
<th>Structural Conductiveness</th>
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<td></td>
<td>Stress</td>
<td>Strain</td>
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<tr>
<td><strong>Emergency Time</strong></td>
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<tr>
<td><strong>Sweden</strong></td>
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<tr>
<td>Rescue Station</td>
<td>H</td>
<td>L</td>
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<tr>
<td>DMG</td>
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<tr>
<td>Helpcenter</td>
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<tr>
<td><strong>USA</strong></td>
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</tr>
<tr>
<td>County EOC</td>
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<tr>
<td>City EOC</td>
<td>H</td>
<td>L</td>
</tr>
<tr>
<td>Washoe*</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td><strong>Recovery Time</strong></td>
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<tr>
<td><strong>Sweden</strong></td>
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<tr>
<td>CCG</td>
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<tr>
<td>LPG</td>
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<tr>
<td><strong>USA</strong></td>
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</tr>
<tr>
<td>Farming*</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>Bountiful</td>
<td>H</td>
<td>M</td>
</tr>
<tr>
<td>Bay Area</td>
<td>H</td>
<td>H</td>
</tr>
<tr>
<td>Slide City*</td>
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<td>H</td>
</tr>
</tbody>
</table>

**Key**
- H-high
- M-medium
- L-low

* no emergence occurred

Finally, our data suggests that strong pre-existing networks were not apparent between various organizational officials that were involved in the emergent organizations. We can surmise that the networks were strengthened during the emergency itself. Thus, we can conclude that during the emergency time period cases in Sweden, that a high degree of structural stress and the availability of resources were the main conditions for emergence.
Analysis of United States Emergency Time Period Cases

All of the United States cases focused upon areas which were not prepared for a disaster. Yet, in one of the areas, emergence did not occur. In addition, we observed struggles between various officials in taking control of the disaster situation.

In Farmington, both the city and the county did not have a disaster plan, setting up a situation where if a disaster struck, the likelihood of an inability to respond (i.e. unmet needs) increased. In responding to the mudslides, the city government totally restructured its tasks and goals and made a new entity becoming what we call an emergent group. The reason for such action was that the city and county organizations, as they existed, could not respond to the situation. Emergence of this organization was greatly facilitated through the pre-existing primary and secondary group networks among people in the impacted area. We should stress here, as in the Swedish cases, the need to mobilize resources was a reason why this spontaneous organization emerged, not that the resources were already easily available.

The county also responded to the disaster but in a much slower fashion. Since the county EOC did not have or was defined any real major tasks, we can conclude that a major reason for emergence was because the city had a similar EOC. That is, the county EOC was following an emergent norm that was being defined within the organizational environment. We should add that since the main impact was essentially outside the jurisdiction of the county (that is the slides occurred within the city limits of Farmington and Bountiful), the county EOC had little to do and ceased to exist within a week, whereas the city EOC continued its existence for another week. Also the county EOC had very weak pre-existing networks. At least half of those involved in the EOC had really never met or known each other previously.

The Washoe Valley case gives us further insight into the process of spontaneous or emergent groups/organizations, because it is a case where emergence did not occur. Yet, we see some similarities with the other two United States emergent cases. That is,
at Washoe Valley, there was conflict of who was to be in control and much of the initial response by some key individuals centered around this issue. Secondly, there were no real disaster plans, and what did marginally exist, was not followed (i.e. the person who was eventually in charge did not stay at his office to coordinate efforts, but rather went out to the field and set his office at the disaster site where there existed poor inter and intra organizational communications).

Further analysis would suggest that the actual severity of the impact did not really strain the organization response. That is, the death and injury total of the incident was the same as a car accident in the area. Relatively few people over a large area of land were impacted by the disaster, and those that were homeless were taken care of by the Red Cross, Salvation Army, and/or family and friends. In addition, local officials did not decide to define the situation as a disaster, and apparently many were acting in such a manner that it was not a disaster. In other words, all victims were found very soon after the impact, and the crisis was thought of as over.

Secondly, poor communication between organizations at the site of the disaster inhibited the possibility of emergent social relations between the organizations at hand, even those organizations present, especially those from the Reno area, had strong pre-existing contacts. Also there was no need to mobilize resources, because more than enough resources were available at the disaster site. For example, a number of search and rescue groups were present, and all were acting upon their own accord. Thus, a number of interrelated factors preempted any type of emergent group or organization. We also suggest that although a severe crisis was not at hand, better communication within and between key organizations, and even the existence of an emergent organization, would have facilitated the disaster response and recovery. For our emergency time period cases in the United States, we suggest that high levels of stress, availability of resources, and ecological factors facilitated the emergence of
these organizations, whereas low levels of stress and ecological factors inhibited emergence.

**Comparison of Swedish and United States Emergency Emergent Process**

What strikes us as most significant from comparing these cases is the similar reasons for emergence in both countries during the emergency time period. That is, we find that: 1) The greater the social stress in and around the impact area, the higher the probability of an emergent organization (since we do not have data on emergent groups in this situation, we will not make a statement about that phenomenon here), and 2) The need to mobilize resources is precipitated by the emergence of an organization which needs to obtain and coordinate disaster response.

With our second point, we are suggesting here is that "resources" are important in the emergence process, but we need to consider the time order of having resources and then mobilizing the emergent organization, or mobilizing and emergent organization, and then acquiring resources. What we are suggesting here is that the concept resources as used from the resource mobilization perspective has two dimensions. The first pertains to the amount or degree of resources available within the emergent entity's organizational environment. The other dimension pertains to the emergent group/organizations's ability to acquire the resources once emergence has occurred. This occurs to facilitate the extistence of the entity. We suggest that during the emergency time period, the spontaneous emergence of an ad hoc organization occurs before resources are systematically mobilized. This is an important theme to keep in mind in our post disaster analysis and for our discussion regarding collective behavior and the SMO/RM perspective.

We have one final point, that the role of pre-existing social networks is ambiguous. In some cases they are important, in others they are not. In fact, in our one case in Washoe Valley, where an "old-boy" network among key officials was operating, no emergence occurred.
The role of ecological factors here do not seem strong. Perhaps in some situations where convergence is occurring, emergence is facilitated. More data are needed to further understand the role of ecological factors. Perhaps this factor is more useful for crowds and gatherings than in understanding the emergent process of organizations and groups.

But the important point from all this is that structural stress within or around the disaster area is the key factor in both Sweden and the United States in facilitating the emergence process. If a high degree of pre-existing networks and potential resources for mobilization exists, these two conditions alone may not necessarily lead to emergence if some high degree of structural conflict (specifically structural stress) does not exist.

Although we argue that the structural conditions for emergency time emergence are basically the same in Sweden and the United States, a difference exists between the Swedish and United States emergent process. That is, with the Swedish cases, we see a strong deference toward authority. Take note of the way that nobody in the Swedish cases wanted to take charge. The firechief relinquished his command to the county government soon after the impact. In turn, the county government quickly formed a new organization to specifically deal with the disaster (i.e. the Disaster Management Group), which in turn relinquished its command five days later.

With the United States cases, however, we see just the opposite phenomenon. That is, authorities in various organizations or organizational roles were in disagreement as to who should take control of the situation. The cases of the two EOCs in Farmington and the situation at Washoe Valley clearly illustrate this point.

We are not the first to note such cross-societal differences. A recent study of comparing worker safety regulation in Sweden and the United States found that the Swedish value system had a strong deference toward authority (Kelman, 1981). When the opportunity arose in the process of regulating safety rules in Sweden, one person
within an organizational context would defer judgement to a higher authority in the bureaucracy. Conversely, in the United States, the author found that a person within an organizational context would take the initiative in attempting to be a regulator, or be or make that position one with some authority. The term to describe the Swedish condition, which we will use for the rest of our analysis, is "overhet". Literally, the word takes on the meaning of hierarchy, and can be used in that context. In addition, however, it has the special Swedish meaning of giving further authority to the one higher up in an organizational (hierarchical) setting.

The overhet value system has been one of frustration for Swedish authorities, since the county has been trying to instill a strong grassroots democratic tradition within the country. Most governmental projects, by law, must have some type of citizen group input (see Thelander, 1981). The overhet value system and its consequences among citizens and government may be evident in our analysis of recovery time emergence in Sweden.

Next, we turn to an examination of our recovery time period cases, first looking at Sweden and then the United States.

**Swedish Recovery Period Emergent Cases**

With our two cases here, we find similar conditions leading to emergence. First, we find that both cases had high degrees of structural stress, and the Local Preparation Group's (LPG) members were subjected to a high degree of structural strain in regards to their housing situation. The Central Consultation Group (CCG) also formed in an environment of structural strain, but was not initially within an environment of strain as the victims.

Secondly, both cases had resources to draw upon and then mobilize. The existence of pre-existing networks were absent in both cases. Although ecological factors were not responsible for the emergence of the CCG, such factors were evident by the time the LPG formed. Specifically, the CCG, and two other emergent
organizations (not analyzed here) known as the Tuve Committee and the Local Preparation Group (both consisting of various governmental and business leaders) were all part of an emergent disaster organizational set. Thus, the way in which local neighborhood groups could achieve the best representation within the organizational environment was to form their own emergent organization. Or, to put it another way, it was the norm to form an emergent organization/group at this time in Tuve to deal with the recovery aspect of the disaster. We can conclude that structural stress, structural strain, and the availability of resources facilitate emergence in Sweden.

United States Recovery Period Emergent Cases

Since we have a case of non-emergence and three cases of emergence, our analyses is enhanced in trying to explain why emergence occurs. As we noted earlier, no recovery time emergence occurred in Farmington. A couple of factors pre-empted any attempts or chances of emergence. First, although the disaster itself had a severe effect upon the community, there were already other structures in place that greatly facilitated the recovery process. Thus, the demands were not exceeded by the capabilities of the social environment. Although we cannot dismiss the notion that some form of strain or stress existed, we can argue that what did occur was handled by existing organizations and that social conflict (especially stress) as a whole was low. Specifically, the LDS Church was a major factor in diminishing the recovery time social strain. Oddly enough, since the LDS Church had large amounts of resources to give to victims in a situation of some social conflict, the LDS church partially aided in eliminating the need of another (emergent) group or organization to obtain or mobilize resources for victims. In addition, we note the community had very strong pre-existing networks.

What these data show is that with a large degree of resources available and strong pre-existing social networks, if some form of social conflict is not present, emergence may not occur. In fact, the conditions of strong pre-existing social networks and
resources actually ease any type of demands that could have exceeded the capabilities of the area, thus eliminating the need for an emergent group or organization.

In Bountiful, the same situation of strong pre-existing networks and resources was available. The community's capabilities were not really affected beyond its capabilities. Yet, we see a difference of perception by citizens and officials in Farmington and Bountiful. Officials and citizens in Bountiful not only saw the impact in a more severe fashion, but were responding to it in such a fashion. The fact that disaster response groups were being planned in Bountiful before the landslides, and that the citizens were much more active in the LDS Church's philosophy of spearheading than those in Farmington clearly show the behavioral differences of the two communities. Overall at the grassroots level, the response by most neighborhoods in Bountiful was not as large or as active as officials had hoped.

The Bay area case highlights the notion of some form of social strain/stress, at least in being the initial condition leading to emergence. There were no real pre-existing networks before the landslide, but networks did develop over time as a result of the meetings from the group. Furthermore, the emergent group was used as a way to mobilize resources in order that victims could recover from the disaster. Or put another way, the mobilization of resources was not the initial factor in why the group formed.

Finally, our Ocean Side case of emergence presents different conditions and opposite results from our non-emergence Farmington case. First, there was a great deal of structural stress in the community, especially since victims were without insurance or some other organization (i.e. the Farmington residents had the LDS Church) to aid victims in the recovery process. Thus, the many victims had to go in search of ways to have some type of reimbursement after the disaster. Since no former group or organization existed that would facilitate their search, victims and other supporters formed an emergent group.
Initially there were no resources for the group, but it was after the group formed that it was able to accumulate a large number of dollars and other types of resources. Here again we must point out it was the formation of the group that led to the mobilization of the resources, not the mobilization of resources that facilitated the formation of the group. Finally, although friendship cliques existed in the area of the disaster, in no way could a strong argument be made for pre-existing social networks facilitating the emergence process. Rather, these strong linkages, even between conflicting "cliques" within the group, were facilitated by the emergence of the group.

Thus, from these cases we can conclude that the most important condition for emergence is some form of social stress or strain. One may question the Bountiful case, but here we can see the Thomas Theorem at work. Specifically, a group of citizens and officials perceive the potential for great disaster, and were responding in a corresponding fashion. In Farmington both the actual impact and the perceptions by citizens and officials were that the existing group or organizational structures could handle the recovery process after disaster or plan for future impacts.

Furthermore, the presence of social strain with our emergent group cases reflect a political dimension of disaster. We also note that in our non-emergent case, we have medium and low degrees of stress and strain respectively, and high degrees of resources and networks, illustrating the importance of strain or stress in facilitating emergence.

We also see that resources played a role with the emergent group after it emerged, but it is not the sole reason why the groups emerged. As we alluded to in the above cases, the formation of the emergent group or organization in the United States cases aided later the ability to mobilize and acquire resources. Thus, although the gathering of resources is not a specific condition of emergence (albeit is a probable
task and hopeful consequence), it can play a part in aiding an emergent
group/organization in accomplishing its task(s).

The role of pre-existing social relationships remains still rather ambiguous. In
two of these recovery cases, strong pre-existing networks existed, but emergence only
occurred in one of the settings. With the final two cases presented in this section, pre­
existing social networks were either weak or basically non-existent. Perhaps the
importance of social conflict acts as a mediating factor as to whether pre-existing
social networks plays an important role in emergence. We suggest the following
hypotheses: the greater the capabilities of a social system are exceeded by demands put
upon it, the less important pre-existing social networks are for facilitating the origins
of emergent group/organizations. Or, put in another fashion, the higher the social
conflict, the more likely spontaneous/emergent groups. Next, we turn to comparing
the cross-societal emergence process.

Comparison of Swedish and United States Recovery Cases

Our comparison of recovery time emergence reveals a number of interesting
patterns. In both countries we see a high degree of structural stress where
emergence occurred. We also can observe high degrees of structural strain in all but
one case (Bountiful) where emergence occurred. We will elaborate upon these
patterns later in this section.

We also observe mixed patterns of structural conduciveness. Resources are visible
in every case, even where emergence did not occur. There seems to be no relationship
between pre-existing social networks and emergence. Ecological factors are evident
and may have facilitated emergence. As we noted earlier, this dimension of structural
conduciveness is still weak conceptually and needs further refinement.

Like the emergency period cases, structural conflict seems to be the key condition
for emergence. Not only is stress evident in all our recovery emergency cases, but we
also see the addition of high degrees of structural strain in both countries. This phenomenon of consensus and conflict in disaster is discussed in our next section.

The overhet value system does not seem to be operating to such a strong degree in the recovery time emergence in Sweden. The prime example, however, is the manifest leadership role Volvo played in aiding the Local Preparation Group. We do see some aspects of American individualism, the extreme case being in Farmington where citizens want nobody, including the LDS Church, to tell them what to do. Also, we believe that the social/organizational context for emergence is much more conducive in Sweden. As we noted earlier, the Swedish government supports a number of grassroots activities, whereas that does not occur in the United States. Next, we consider a total comparison of cross-societal emergence.

Discussion of Cross-Societal Emergence

From our data, we contend that in Sweden and the United States the conditions for emergence (whether during or following landslide) are quite similar if not essentially the same. Perhaps the main reason for this is the highly organized or bureaucratized nature of each society. That is, many of the everyday needs of the societies are met through various organizations. If these needs cannot be met, such as in a disaster situation, existing social organization is replaced. Thus, emergence occurs to remedy the situation. In general we can say that high degrees of structural conflict lead to emergence. More specifically, high degrees of structural stress leads to emergence during the emergency time period, and both high degrees of structural stress and structural strain lead to emergence during the recovery time period. The structural conduciveness factors do not lead to emergence per se, but rather facilitate the emergence process. The availability of more non-emergent cases would clarify more clearly the role of structural conduciveness in disaster (and other collective behavior) situations.
However, one major difference exists within the Swedish and United States organizations which has an impact on the process and consequences of emergence. This difference can be found in a key, different organizational value system that operates in each country. As we noted earlier, in Sweden there is a greater deference toward authority, especially within an organizational context than what there is in the United States. This value system is known as "overhet" (Kelman, 1981). In everyday usage, this word refers to "hierarchy", but its implications are much deeper. Specifically, it refers to a deference to authority in Swedish within an organizational system. Kelman (1981) found this value trait important in explaining differences in the organizational process of workers safety organizations between Sweden and the United States. In the Swedish cases presented in our two previous chapters, we have already documented the process by which designated organizational leaders gave authority to higher officials, and/or passed authority to other officials.

From our United States data, we see individuals/groups trying to obtain authority within emergent or organizational settings. That is, various groups/organizations were claiming control over the disaster situation and some degree of disagreement resulted. Kelman (1981) also found the same struggle and attempts by various groups to obtain authority of worker safety organizations in the United States.

Furthermore, we see different value orientations toward emergent organizations by Swedish and the United States governments. This difference in value orientations is especially noticeable in the recovery time period, and by state and local governments in the United States. Over the last 20 years, the Swedish government supports grassroots, neighborhood groups, much more than what we see in the United States. One reason for Swedish grassroots philosophy is to further promote democracy within its social structure (Thelanders, 1981). Another reason for this philosophy is to counter the overhet value system that exists (Kelman, 1981). In comparison, we have found during our recent study of emergent citizen groups in disaster in the United States
(Quarantelli et al., 1983; Neal, 1984) layers of government usually at the local or state level questioning and often trying to inhibit or prevent group emergence. For example, in some of the cases cited in the above studies, it was found that local officials at times questioned what rights citizens really had in forming a group to mitigate disaster situations. With one situation in the south, we actually found a state law forbidding citizen group formation (probably originating during the civil rights movements).

Although not a specific part of our analysis, a look at just the data at hand could lead one to erroneously conclude that the structural outcomes in Sweden and the United States are different. That is, in Sweden we see a lot of emergence and those new entities often highly networked. With our United States cases, this usually did not occur. But to make such a sweeping conclusion would be erroneous. Our recent studies on emergency and recovery time emergence at the DRC (Quarantelli et al., 1983; Quarantelli, 1984) reveal many similar emergent entities and structures as documented in Sweden. For example, in Salt Lake City during their major flood of 1983, (just 20 miles down the road from Farmington and Bountiful and during their mudslides), we found the same type of emergence and emergent organizational sets as we documented from the Swedish cases. With our ECGs study, we found a number of instances of neighborhood emergent groups, umbrella groups and other organizations interrelated in dealing with disaster issues (Neal, 1983,a,b). These structures resemble the emergence pattern and structure we described in the recovery period Swedish cases. In addition, the types of hazards or impacts involved with the United States' studies were floods, tornadoes, toxic wastes, and nuclear power plants. Thus, we believe these cross-societal data further confirm Quarantelli's (1981) assertion that an agent generic rather than agent specific approach toward disaster and disaster planning should be undertaken:
Disaster Research Center studies do suggest that even demands are inherently related to the social situation involved and seem to have little direct relationship of any kind with any specific agent dimension (Quarentelli, 1981:11).

Detailed investigation and comparisons with other Swedish impacts (such as the recent power blackout and poisoness gal leak) will add further insight to the agent generic versus the agent specific approach to disasters in a cross-societal setting.

Problems of Defining Disaster

We also observed a similar occurrence of consensus and conflict in our landslide situations. That is, during the time just following impact, usually there existed little or no conflict (i.e. structural strain), whereas during the long-term recovery period, conflict (i.e. structural strain) was quite evident. Quarantelli and Dynes (1976) have documented such a pattern in United States natural disaster situations, and correctly suggested that such an occurrence would be expected outside the United States during the emergency time period. They expected much more variation of consensus/conflict during the recovery time period, but no such variation is evident in Sweden. That is, structural strain as a result of vested interests and other power struggles during the recovery time period are just as prevalent in Sweden as they are in the United States.

In a similar line of thought to what was just discussed above, in doing this study we encountered some conceptual problems in defining disaster. One problem pertained to the issue of types of emergence in disaster. Here, we differentiated between emergent groups and emergent organizations and found such a differentiation gave us further insight into the emergence process. For example, we see that structural strain is more likely to be associated with emergent groups during the recovery time period.

Also, we found that defining periods of disaster presented an analytic conundrum. A number of different approaches have been used in the past for defining disaster and specifying periods of disaster, (Carr, 1932; Fritz, 1961; Barton, 1970; Dynes, 1974; and Miletti et al., 1975; Kreps, 1984; Perrow, 1984). Yet none aided us
in eliminating the problem of defining periods of disaster. For example, to use the term "impact" period would suggest the emergence process occurs during the time of actual impact. Yet no emergence occurred during the impact, but rather soon following the physical impact. In other cases, recovery-oriented emergent entities were actually forming during the time of crisis following the time of impact. For a matter of clarity, we have used the terms emergency time emergence and recovery time emergence. These categories are not precise, but useful for this study. Emergency time emergence referred to emergent activities tending to the immediate social and physical demands placed by the impact. These immediate needs would be those efforts to getting the affected area back to normal operations as soon as possible. Recovery time emergence refers to those efforts in facilitating the long term social and physical reconstruction due to the disaster. We should add here this usage implies that recovery emergence can develop during the emergency stage, but its orientations are toward longer term recovery. We hope that these comments may aid those in the future who must also grapple with the problem.

The problem listed discussed further indicates the need to more explicitly define disaster and perhaps strive toward what could be called a theory of disaster. Recently, Dombrowsky (1981) and Kreps (1984) have alluded to the need of developing a theory of disaster and/or achieving a a more specific definition of disaster. Quarantelli (1984) has delineated various types of disaster definitions which are essentially based upon various characteristics of physical impact and/or social consequences. Quarantelli asserts that a definition of disaster based on "an imbalance in the demand-capability ratio in crisis" (Quarantelli, 1984:11) as the most beneficial approach. Generally we concur with this perspective. Along this line of thought, and updating Fritz's (1961) definition of disaster, Kreps has recently defined disaster as:

(E)vents, observable in time and space, in which societies or their larger subunits (e.g. communities, regions) incur physical damages and losses and/or
disruption of their routine functioning. Both the causes and consequences of these events are related to the social structures and processes of societies and their subunits.

If such an approach is taken, the role of emergent groups and organizations become crucial, we believe, in understanding and perhaps measuring the social aspects of disaster. Since emergence is believed to occur due to some type of situation where demands are exceeded by capabilities, the properties of emergence could be used as a social indicator of the degree of disaster impact. Specifically, the types of emergence, and the degree emergence occurred could be used as the indicators. This is a point that should be considered in later research.

We believe that two other approaches of defining disaster need to be considered and incorporated. One approach pertains to disaster as a politically defined situation, and the other pertains to a disaster as a socially defined situation. Furthermore, these two ways of defining disaster are at least partially linked. For example, disasters may to a degree be socially defined by the victims, but may or may not be defined by authorities within the political system. The Washoe Valley and Ocean View Cases illustrate such examples. However, the key point here is that the definition of disaster needs to be further explored and delineated if disaster research will continue to make the strides it has made over the last 20 years. As Kreps (1984:317) observes:

In summary, the conceptual problems that confront sociologists interested in disasters are fundamental, multifaced, and certainly difficult, but not overwhelming. A sensitivity to the classification of social units and repsonses, in particular, should be important in all disaster studies. Should this perspective become the norm, the inevitable result will be improved collaboration among those participating in disaster research and in many other fields in sociology.

Issues in Collective Behavior

There are a number of issues in collective behavior that can be addressed from our analysis. To begin, our analysis questions a number of notions of Social Movement Organization/Resource Mobilization (SMO/RM) analysis. We do not totally discount this approach, but rather urge a re-thinking of some aspects.
We contend that an inherent weakness of studying the spontaneous and emergent process of social movement and SMO activity exists in the SMO/RM approach. Although those from this perspective would contend that resources are the reason for emergence, our data show that the mobilizing of resources occurs after the group or organization comes into existence. Thus, their explanation for the spontaneous or the emergent has a major causal error. However, the study of group or organizational maintainence after emergence is benefited by this perspective, especially since some of its theoretical assumptions are grounded in organizational theory. Secondly, as we noted earlier, the mobilization of resources by an emergent entity and the potential resources available to a potential or emerging group/organization environment needs to be differentiated and further conceptualized.

Thus, by using social organizational approaches in collective behavior (i.e. the emergent norm/social relationships) we can obtain a clearer understanding of the conditions of emergence while the RM/SMO approach can facilitate in analyzing why a group or organizations continues or not its existence after emergence. We conclude that the use of a collective behavior perspective is not only important in understanding why various types of entities come into existence, but it is necessary in obtaining a correct understanding of the spontaneous nature of the phenomenon. In fact, Killian’s recent critique of the SMO/RM perspective in his analysis of the civil rights movement mirrors our own conclusions:

Hence, we conclude that while organizations and rational planning are key variables, social movement theory must take into account spontaneity and emergence and the forces which generate them (Killian 1984:782).

Furthermore, we find that the SMO/RM approach beneficial in studying emergent cases that are not related to social movements or SMOs. That is, the importance of available resources and the process of mobilizing them is highlighted by using these concepts in understanding how emergent organizations come into being during the emergency time period. Also, such a perspective clearly illustrates
that both a theoretical and empirical relationship exists between studies of collective behavior and organizational behavior.

Our data also forces us to at least partially reconsider the role of pre-existing social networks as a condition leading to collective behavior situations. For example, studies of crowds (Aveni, 1977; Neal and Phillips, 1985) and SMO activity (Freeman, 1979; Snow et al., 1980; Morris, 1984) among others strongly suggest that pre-existing social networks are necessary for emergence to occur. Yet, our own data show that various forms of emergence do occur without the necessity of pre-existing social networks. We do not deny the importance of pre-existing networks aiding the process of emergence. In fact, some of our cases of emergence in this study clearly were aided by pre-existing networks. What we do suggest, is that the role of this condition for collective behavior needs to be explored further.

Finally, analysis of our data suggests that various forms of structural conflict are present for collective behavior. With both the Swedish and United States cases during the emergency time period, we observe a situation of social stress where demands upon the disaster impacted community exceed its capabilities.

Such a situation of demands exceeding capabilities is evident in the recovery time period of some of our emergent cases. The Central Consultation Group in Sweden is perhaps the best example of such a case. In addition, another form of structural conflict (i.e. structural strain) existed which aided other types of emergence in the Tuve, the Bay area, and Ocean View cases. That is, the victims were forced into a situation where partial or full reimbursement for them due to the disaster may not occur. This type of structural conflict hinged upon power relationships between various groups and organizations in regards to the issue. Thus, regardless of the type of conflict, this condition we argue does play an important role in serving as a condition for emergence. Our argument here attempts to reconcile theoretical and empirical debates as to what conditions may lead to collective behavior.
Toward an Approach to Explaining Collective Behavior

To begin this section, we note that we use the word approach here rather than theory. We do not argue what we present below is a theory, but rather we offer some suggestions derived from our data that may aid in building a theory of collective behavior.

First borrowing from Lofland (1981), we contend that collective behavior, whether we are discussing emergent norms, emergent social relationships, or both, must be thought of on a continuum. There exists no line of demarcation that defines a situation as "collective behavior" or "not collective behavior". Thus, the outcome of what is studied should be considered as a degree of collective behavior. That is, some instances of collective behavior have higher degrees mentioned on the dimensions listed above than others. This idea can be broken down further by constructing three dimensions of collective behavior on this continuum. This would include: 1) low to high degrees of emergent norms, 2) low to high degrees of emergent social relationships, and 3) low to high degrees of spontenity.

Second, we suggest that two key conditions exist which interact and can lead to collective behavior. The first condition is what we have called structural conflict. This could either be in the form of social stress (i.e. needs are exceeded by capabilities) and social strain (i.e. struggle) We believe the utility of these concepts were demonstrated in our analysis.

The other condition, borrowing the terminology from Smelser (1962), is structural conduciveness. This would include such factors as the degree of pre-existing social networks, the degree of resources available in the organizational environment, or a potential emergent entity to later draw upon, and ecological factors (e.g. such as spare time, the number of people available within a certain dimension of time and space). All but the last notion of ecological factors seemed to aid our
explanation of emergence to some degree. Perhaps the ecological factors would be more useful (and the resource factors less useful) in crowd, riot, and panic situations.

Thus, we are presented with a number of combinations that could lead to a collective behavior outcome. For example, a high degree of structural conflict can lead to a degree of collective behavior, or perhaps the same degree of structural conduciveness may lead to a similar degree of collective behavior. Or, even a combined situation of structural conflict and structural conduciveness may lead to a particular degree of collective behavior.

What needs further exploration is how each condition may effect emergence of norms and/or social relationships and the degree of spontaneity. Only further empirical examination of collective behavior incidents (besides the study of just SMOs which seem to be so much in vogue today) in this fashion will allow us to develop a possible theory of collective behavior.

Connections between Collective Behavior and Organizations

As we contended in our literature review and have further illustrated in our analysis, we argue that both empirical and theoretical connections exist between collective behavior and organizations. First, we believe that the study of social movements and SMOs are part of the study of collective behavior. As we noted earlier, without the addition of such concepts and and having a foci of emergence and spontainiety, the total process of social movements and their organizations is not totally presented.

Furthermore, in studying both emergent groups and emergent organizations and SMO and non-SMO collective behavior incidents, we can begin to see a continuum of social organization from collective behavior to formal organization. If there is any contribution to making our differentiation between emergent groups and emergent organizations it is here, where emergent groups generally have a less structured organization whereas some (but not all) emergent organizations have more of a
formal organizational structure. Thus, our data lead us to reaffirm Kreps' (1983:453) contentions that "there is an underlying continuum of routine to non-routine structuring and restructuring processes in the interrelationships among the elements of organizations."
In this final chapter, we discuss three main points. First, we give a brief summary of our basic findings and discuss the implications of these findings in regards to disaster and collective behavior research. Next, we discuss some of the possible limitations of our data and our analysis. Finally, indicate possible fruitful directions for future research based upon our study.

**Review of Disaster Findings**

With our study, we have done one of the few explicit cross-societal studies on disaster response. Specifically, we focused upon emergent group/organizational behavior during the emergency and recovery time periods of disaster in Sweden and the United States. Specifically, we found that the reasons for emergence in both societies are essentially the same. That is, the capabilities of the areas affected were exceeded by demands within the area due to the disaster impact. Another factor contributing these these similar conditions of emergence pertains to the fact that both societies are highly organized and bureaucratized. Thus, within each society one way to solve a problem is “to organize”.

Another similarity that existed in both countries is that during the emergency time period, there was no evidence of any high degree of structural strain (albeit structural stress in both countries were key conditions for emergence). That is, we usually saw a strong degree of consensus by officials in both the United States and Sweden regarding disaster related activities and decisions. However, in our recovery time cases, we saw the political aspects of disaster emerge in both countries. The
political nature of the recovery process was highlighted by structural strain in varying attempts to aid the disaster victims.

However, there was an important value difference between Sweden and the United States which accounted for a different process of emergence once it begins. In Sweden, there is a tendency for people within an organizational setting to defer to a higher authority within the organization. This occurrence, called "overhet" has also been firmly documented elsewhere (Kelman, 1981). Secondly, the Swedish government encourages democratic grassroots activities (Thelander, 1981). An attempt of overcoming the overhet value system is one reason why the government promotes such activity (Kelman, 1981).

On the other hand, in the United States, we found that leaders of some emergent groups and organizations were in disagreement with each other over disaster leadership. In other words, rather than turning authority over to a higher official, Americans were more individualistic oriented and attempted to maintain their own power. Thus, we saw less networking in our United States emergent organizational sets, and more cases of this in Sweden.

Review of Collective Behavior Findings

First, we believe that we have demonstrated the utility of focusing upon the process of emergence from a social organizational approach. In a similar line of thought, we showed that there were underlying similarities between collective behavior and what are called social movement organizations. That is, the use of the social organizational framework allows us to observe the similar structures and process between social movement organizations and other types of collective behavior. Also, the use of certain organizational concepts (i.e. organizational set, organizational environment, hierarchy, tasks, division of labor) are useful in studying the emergence process and structure. This indicates to use, and others (Kreps
1983), that there is a theoretical and empirical connection between collective behavior (including social movements and their organizations) and organizations.

Furthermore, we also explored what conditions may lead to collective behavior. We concluded that various forms of conflict (e.g., structural stress, structural strain), separately and/or combined with various forms of structural conduciveness (i.e., resources, networks, ecological factors) can lead to a degree of collective behavior. The connections between the conditions of collective behavior (i.e., social conflict and/or structural conduciveness) and its consequences (emergent norms and/or social relationships) need to be further investigated before an actual theory of collective behavior may be developed.

Research Limitations

Cross-societal disaster research is still in its infancy. There are but a few studies besides ours which has an explicit research design for comparative purposes. The ability to generalize our findings are limited due to the nature of our data. The cases selected were in essence defined by the Swedish disaster and the data set later generated. That is, we selected landslide cases in generally similar types of United States communities. Furthermore, our comparison is based upon only one Swedish disaster. Thus, we encounter difficulty in making any type of statement as to whether the impact and response was "typical" in Sweden. Yet, since the landslide has been the only recent major natural disaster, an argument can be made for it being "typical".

Since we only focused upon landslide situations in the United States and Sweden, perhaps a slanted view of emergence is given. We believe this to be true especially in our recovery time emergent group cases from the United States. When we compare these two cases to the large data set from the Disaster Research Center's emergent citizen groups in disaster project (Quarantelli et al., 1983), we find that most emergent groups examined were part of some larger organization. Of our landslide cases, such a phenomenon was absent in all but our Bountiful case. In fact, we find it important to
note that the structure of the recovery period Swedish emergence concerning the Local Preparation Groups resembled the structure of most of the other cases we found in the United States. Furthermore, our analysis could have been enhanced if more data could have existed on the four neighborhood groups that primarily comprised the Local Preparation Groups.

We also found that the inclusion of our two non-emergent cases aided our analysis. At least one case of non-emergence from Sweden could have further helped our analysis. The importance of including both emergent and non-emergent cases has been pointed out by Forrest (1974). We believe that similar research endeavors in the future must keep this point in mind.

**Directions for Future Research**

This study had two general foci, both interrelated. One of these centered on cross-societal disaster research. The other focused on collective behavior. In both cases, we believed that the conclusion of this study has led us to ask more questions than we have answered.

First, we feel that the nature of our cross-societal comparison needs to be expanded. If possible other Swedish disasters that have occurred (i.e. a massive blackout in late 1983; a massive poisonous gas leak in early 1985), could be included. The addition of other non-emergent cases would be also beneficial.

On a more global basis, we believe that emergence should be explored in other societies. Not only should situations in other industrialized societies be included, but also in so called "developing" and "third-world" settings. For example, a recent DRC field trip to Mexico City just following an explosion and fire killing over 300 people apparently led to large degree of emergence. Similar data on the Bhopal tragedy in India would be equally revealing. Schnieder's (1957) study of island of Pacific islander's response to a typhon showed that the disaster was just part of their every day life. Perhaps those countries that may be considered "less developed" may not be
as inclined to have emergence since such occurrences are considered "normal" and are built into the social system. The implications here from our discussion suggest that developing a global definition of disaster based on these criteria could be difficult.

On a similar and more theoretical note, we believe that more must be done in refining the definition of disaster and the concepts associated with doing disaster research. For example, a better delineation of the different stages of disaster are necessary. Krep's (1984) modification of Fritz's (1961) definition of disaster serves as a good starting place. However, we contend that a "political/definition of the situation" aspect needs to be incorporated into the definition.

In the area of collective behavior, we delineated a basic framework which we believe to be useful. We suggest that a number of different types of collective behavior (and non-collective behavior) situations be studied using the framework. From such an endeavor, a social organizational theory of collective behavior can be constructed. Furthermore, in continuing such studies in the areas of disaster research and collective behavior, we hope that a better understanding of two of the three traditional foci of American sociology - emergence and change - can be better understood. Finally, we believe this study has made a modest contribution to the current knowledge in the areas of disaster research and collective behavior, and will serve as a useful source for future research in these areas.
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