THE SOCIAL DIMENSION OF EMERGENCY RECOVERY D5

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Recovery.

Emergencies and traumatic events have profound effects on those involved, but most people adapt to the events, if given appropriate support. Lasting personal and social changes are inevitable and restoration of pre-existing conditions has to be combined with adjusting to the new circumstances. New lives are established by making the event part of history (Kaniasty and Norris, 1999). The social environment of the aftermath is crucial in determining how well people adapt to stress, change and emergencies (Gist and Lubin, 1999; Coman, 2003). However emergencies shatter essential assumptions for psychological health (Kauffmann, 2002), which are formed in community life and psychosocial forces maintaining the normal structures of life are released in personal life (Janoff-Bulman, 1992), families (Cohen, 1992), communities (van den Eynde and Veno, 1999) and society (Bolin and Stanford, 1998).   The outcome of emergencies is as much a matter of how the environment supports recovery as it is related to the impact. Recovery must harness these personal and social processes to avoid a "secondary disaster" (Golec, 1983; Raphael, 1986) resulting from the social confusion. People with access to a supportive community (even if its services and resources are impaired) recover better than those who leave (Haas, Cochrane and Eddy, 1975; Milne, 1977). Hence recovery involves the social environment (Ursino, McCaughey and Fullarton, 1994).

This paper presents a model of the social phenomena of emergency recovery and predicts the dynamics of affected communities that enable social recovery to be managed as the context for personal recovery. It is based on observations of Australian disasters and emergencies over the last twenty years and on research findings in the literature.

The Nature of Community and Personal Recovery

Social process is embodied in individuals, but expressed in collective events; society and its members express the same thing in different conditions (Mennell, 1998). An emergency for a group of people is also a group event. Recovery has to relate individuals and groups and incorporate community responses (Marsh and Buckle, 2001). Communities provide a shared life based on common locality, culture and routine within a communicating group in which members are united by their common identity in spite of personal differences (Wiggins and Schwartz, 2002). Loss of community threatens identity, independently of the loss of personal relationships (Harré, 1993). "Communal bonds" linking people in communities depend on communication and provide the basis for daily life (Crittenden, 1992).

Personal recovery is shaped by each person's unique experiences, which is the core of personal identity (Wiggins and Schwartz, 2002). But people in the same place at the same time do not have the same experience in emergencies and their impact and recovery are different. One person may see the threat coming and anticipate death while another was surprised; in a shooting, one person is wounded and survives, while a companion is unscathed, but expects to die. The effect of these experiences on social connectedness is determined by how they are communicated as a common body of stories by their community. Personal uniqueness may undermine or enhance collective bonds depending on the adequacy of communication.

Posttraumatic stress is associated with social isolation that undermines constructive help seeking and impedes recovery (McFarlane and Yehuda, 1996). Social embeddedness is crucial to impact, greater embeddedness associated with reduced psychosocial impacts (van den Eynde and Veno, 1999). The incidence of psychiatric disorders in emergencies is usually not much beyond that expected normally, (10-20%, Smith and North, 1993; Carlson, 1997) although terrorist bombings show up to 40% posttraumatic stress disorder, depression, anxiety and substance abuse (North, Nixon, Shariat, Mallonee, McMillen, Spitznagel, and Smith, 1999) and it may be 100% where recovery is not provided (Smith and North, 1993). Large-scale disasters also effect the mental health of other community members (Galea, Ahearn, Resnick, Kilpatric, Bucuvalas, Gold and Vlahod, 2002). These observations show that the social dimension provides the framework for assessing recovery resources, identifying impacts and anticipating reactions to come.

Most psychological reactions subside over the weeks following emergency provided effective support is available. However, degradation of the quality of life and erosion of the fabric of relationships is widespread (Gist & Lubin, 1999). Change in community arrangements itself constitute stress (Kaminoff and Proshansky, 1982; Farley and Werkman, 1990), but emergencies shatter the sense of continuity of life, community, culture and relationships (Gordon and Wraith, 1993) that are themselves resources for recovery. While not mentally ill, people are unhappy, go through the motions of life without enthusiasm, lose the heart of their relationships and neglect life goals. People with identifiable disorders are referred to services, but degraded quality of life must be addressed by understanding and supporting community processes.

The Community as a System of Social Communication.

While the idea of community is often criticised (Dyke and Dyke, 2002), it is a necessary dimension of human existence (Miami Theory Collective, 1991). Communities are combinations of open-ended groupings defined by organizing cultural beliefs and practices, constantly open to change (Masolo, 2002). Social structures and systems include individuals who do not know each other personally. "Society" denotes the complex set of social, national and legal relationships, political obligations and membership of interest groups and associations that support or constrain the person's access to goods and services. These all constitute "social bonds" connecting people in social units.

The community is a system of social elements linked by bonds of influence, history and tradition expressed as various forms of communication, (Luhmann, 1995). The position of social elements and sub-groups can be mapped in terms of their degree of social proximity and strength of attachments on dimensions such as culture, locality, religion, class or political affiliation (Woelfel and Fink, 1980). The complex system of bonds that link them vary from strong and close to weaker and more distant, providing a unique location that is part of their identity (Hormuth, 1990). These relationships constitute interdependent networks with multiple linkages and connections between members, intersecting dimensions, structures and boundaries (Dyke and Dyke, 2002), occupying a common locality. It has a relatively stable social structure of authority, power and prestige and a shared culture (Alperson, 2002) enabling members to meet each other's needs and provide security.

Emotional attachment, identification and common values hold the community together as different types of communicational relationships (Sigman, 1987), since communication is the medium for social action (Honneth and Joas, 1991) and social structure can be viewed as a system of communications (Luhmann, 1995). The social bonds are described by the nature, content and forms of communication (Harre, 1993; Gumbrecht and Pfeiffer, 1994). Communication between people or social units creates a relationship between them; its content affects the bond's quality rather than its existence. In functioning communities, social bonds include all modes of communication: personal verbal and non-verbal, proximity, movement and mass media, each contributing to the social fabric. Social interventions working with communication have direct consequences on the social fabric of those involved.

It is the nature of civil society that threats to survival are delegated to subsystems such as police, fire and medical agencies. The social system meets its members' needs, allocating functions to individuals or groups, including leaders, representatives, service providers and subgroups with common interests; together, they form a complex network of need satisfying relationships. A community can be likened to a crystalline structure with social units and subsystems bonded to each other in patterns of varying strength and distance as shown in Figure 1. Each community is differentiated in its own way providing a unique fingerprint.
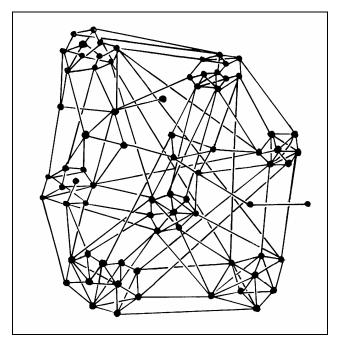

Figure 1. The community as a structure of social units and sub-systems bonded to each other on a variety of dimensions.

Figure 1 only shows one dimension. but the complexity of social systems requires mappings for many. Elements close to each other on one dimension may be distant on another. For example, neighbours may have different occupations in terms of their social relatedness; colleagues in the same workplace may have distant religious, cultural or political affiliations. An informal system based on personal relationships, exists alongside the formal one. Yet as a whole, the structure provides a complex texture of stronger and weaker bonds that complement each other on

different social dimensions, giving each person a unique identity; members divided on one dimension have bonds of mutual interest on others. Conflict is inherent to social life and structure, and can be seen as another type of bond. In functional communities, sets of close bonds compensate for weak, distant or conflictual ones.

Social relationships provide more than emotional support and comfort; people only function effectively as part of a working social system. Emotion, cognition, attitudes, identity and other essential aspects of personal functioning are inherently social and supported and supported by participation in ordered social life (Harre, 1993). However, a disaster or emergency occurs on a scale beyond the capacity of existing community arrangements and imposes a threat that falls outside the functions of existing social bonds. The informal social system is often overwhelmed and people have to draw on their neighbourhood and formal community systems perhaps for the first time. It has an inherently social dimension, assaulting social structures (bonds) and functions (interactions) holding the community together (Kaniasty and Norris, 1999). The organization and processes of the social environment comprise the greatest resource for personal recovery, mitigate the impact of stress and trauma and determine the effects on health and well being in the aftermath (Freedy, Shaw, Jarrell, and Masters, 1992). It is crucial to their recovery that the social system adapts to these needs, which means specific communicational relationships and opportunities.

Phases of Emergency Recovery.

Research in emergencies has identified a sequence of community phenomena (Drabek, 1986), usually described as an initial state of disorganisation or shock on impact, followed by a rebound or "heroic" phase in which the community demonstrates altruism and cooperation to organise itself for rescue. Then follows a period of high morale, common action and organization for recovery, often referred to as the "high" or "honeymoon." However, the unity does not last and a period of conflict and discord ensues between affected groups, government and recovery providers. Morale falls; people become prey to depression, despondency and emotional exhaustion, leading to misunderstanding and alienation at all levels of the social fabric. Often those who develop psychological problems after emergencies are found to be casualties of the isolation common in this phase (McFarlane and Girolamo, 1996, Kaniasty and Norris, 1999). Eventually this period subsides as reconstruction proceeds and normality is reconstructed leading to a return to effective functioning. Although the extent and duration varies, the phases observed are consistent in spite of varied terminology, suggesting a social process, which if better understood may enable it to be more effectively managed to mitigate psychosocial health hazards.

Impact of the Emergency.

The emergency imposes an immediate threat of death, injury or loss. Survival tasks replace the continuity and assumptions of normal life. Instinctual mechanisms are activated in people involved, causing a dramatic change in functioning. They become emotionally and physiologically aroused, with attention focussed on their immediate experiences and engage in highly motivated survival activity (van der Kolk, 1996). Individuals in the same place at the same time often have different emotional experiences and social bonds are distorted as they struggle to survive the threats.

Emotional responses are usually suppressed in favour of action that is rational, given their knowledge, experience and understanding of the situation. However it is often unclear what is happening, which may lead to apparently irrational actions. Panic is almost non-existent in disasters (Johnson, Feinberg and Johnston, 1994; Mileti, 1999; Cornwell, Harmon, Mason, Merz and Lampe, 2001). People cooperate, behave altruistically and preserve community values; officials fulfil their responsibilities, often over-riding fear (Drabek, 1986). They are rarely unable to function or dependent on outside help (Salzer and Bickman, 1999). Only when the entire physical and social environment is destroyed are survivors shocked and dazed, wandering aimlessly, dependent on outsiders for help such as in Hiroshima (Mileti, 1999). However, people may experience strong emotion or numbing and a sense of unreality; in most cases they have not experienced such a state of mind before, and may not understand their responses. They may be confused, making it difficult for them to come to terms with what has happened. People may also feel euphoric identification with others and make heroic efforts in rescue and repair.

The normal social system is set aside because the immediate threat requires they act as individuals or in loose associations with those with who happen to be near, regardless of previous relationships. Roles are discarded in favour of improvised responses to the immediate threat. Individuals or small groups act alone and feel isolated from the larger social unit (Salzer and Bickman, 1999). People alone at impact are likely to show more severe reactions, while those in groups have greater capacity to function; in organizations such as local government, businesses and emergency services, normal lines of communication may be suspended on impact and responses improvised, reducing consultation but increasing autonomy and decision-making at lower levels (Drabek, 1986).

Debonding from the Social System.
Emergencies disrupt communication which means social bonds as the medium for organising normal social interactions are suspended in favour of new improvised roles, because they are not adapted to meet such acute survival needs. As long as survival is uncertain, victims fall out of communication with others in their networks and focus on themselves. The priorities of normal social life recede in favour of survival tasks. Because of its importance, this situation means the normal purpose of social life – to remove threats of survival and allocate them to specialist social systems – fails, and the community is temporarily irrelevant. The accompanying separation and loss of communication means those involved fall out of the complex, multidimensional social system. People are often separated, not knowing what has happened until after the event. The area of the flood, or fire, or the building of a siege or massacre where people's fate is unknown lies beyond a communicational boundary and beyond bonds linking them to the social organization. Bonds to absent members are temporarily set aside, and those who do not abandon familiar roles of conduct may have reduced chances of survival (Johnson, Feinberg and Johnston, 1994; Cornwell, Harmon, Mason, Merz and Lampe, 2001). Those affected "debond" from each other and from the social system since communicational relationships are the expression of social bonds; they are plunged into the uniqueness of their own individual selves. Debonding is the suspension or setting aside of bonds that constitute the fabric of normal social life. It is a central concept in the social process inaugurated by disasters, since debonding, even for a short time, has repercussions on the community.

The loss of the Tasman Bridge in Hobart disconnected two parts of the city and had far reaching effects on the social relationships of people separated. Here physical isolation led to a form of debonding.

In a city shooting disaster, a worker went to the window of his office building when shots were heard. When his supervisor told him to return to his desk he said "You're not the boss of my life!" indicating the social bonds of boss/worker was suspended in favour of survival needs.

When the bomb exploded in a Bali nightclub, a young man was at the bar while his friend was on the dance floor nearby. He was blown onto his hands and knees with burning debris all around him. His response was to run out the back, climb through a window and over a wall into the lane at the side of the building. He was uncertain which way to go to safety; people were rushing past him. Then he thought of his friend and went back and found him injured. Only when he got him to medical care did he realise his own back and arm were severely burnt. Debonding is evident in his initial flight and confusion, and then in another form by the exclusive focus on his friend and ignoring himself. This persisted until the sense of safety was established when the evacuating plane landed in Darwin.

A couple were approaching the café at Pt Arthur, Tasmania when they heard shots. The husband knew their meaning from his army experience, took his wife's arm and walked her calmly past the building and away to safety. During the walk, which to the woman seemed an eternity, she expected a bullet in the back at any moment, was terrified, dazed and could only follow her husband's instructions unthinkingly. After spending hours hiding, not knowing where the gunman was, they returned home, but she was unable to communicate about the experience with anyone. She tried to go to work the next day and was prevented by continual vomiting; it did not occur to her that this might be related to the previous day. She debonded in face of the threat even in the presence of her husband and this persisted in debonding from herself and led to an extended posttraumatic reaction.

The Disaster Event Horizon.
Wherever communication is disrupted there exists an "event horizon" marking the impact zone separating victims from the rest of the community. Event horizon is a term borrowed from the physics of black holes in space. Black holes are caused by ancient starts that are collapsing in on themselves. The gravitational field around them is so strong as to prevent the escape of light or other radiation and nothing can be known about them. However at a critical distance away from the star, the gravitational field is weak enough for light to escape, and events can be detected; this line is called the event horizon. The disaster event horizon is where communication between victims and the rest of the social system is disrupted such as behind the fire front, within the flooded area, inside the siege building or the police cordon where a gunman is active. For a time those in the intact social system do not know what is happening or the fate of those inside, nor do the latter know what those outside know or whether they will arrive in time.

Debonding across the event horizon is disconnection from the social system. However, at the time, it is often submerged in the priority of survival and only felt later, when people become aware of how difficult it is for those outside the disaster to appreciate their experience. At the time, debonding is adaptive, focussing on survival and making available their resources in dealing with the crisis. When debonding occurs to the members of a group or a locality in a large-scale disaster such as a natural disaster, bushfire, flood or earthquake, the social system described in Figure 1 undergoes a loss of structure. Instead of a multidimensional crystalline structure of interlinked social elements bonded together by communication, there are two zones of change. The first immediately precedes impact, where warning produces a tightening and multiplication of communicational bonds as people attempt to come to terms with the threat and decide what to do; this can be considered as "hyperbonding." The second zone is behind the event horizon where the threat leads to debonding as those affected battle struggle to survive, out of contact with each other and the larger social system. The effect of the emergency on the community structure is like a blunt instrument, wiping away existing bonds, rupturing the lattice of interrelated sub-groups, debonding elements, setting them adrift to avoid the threat as best they can. This situation is portrayed in Figure 2 below.
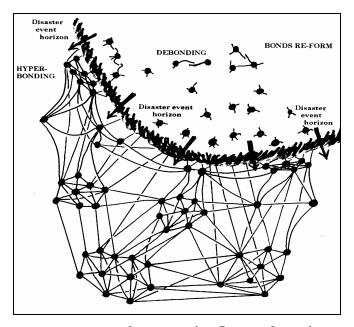

Figure 2. The disaster event moves across the community. Increased warning communications produce "hyperbonding;" communicational bonds are then severed at impact as people confront the threat individually, creating a communicational "event horizon" beyond which members are "debonded."

Debonding initiates the social process that occurs in the recovery period. It represents a drastic alteration in the social environment and in its capacity to support its members (Gordon and Wraith, 1993). Isolation and disconnection from others, if too pronounced or lasting, seriously undermine a person's wellbeing (Kaniasty and Norris, 1999). Early intervention in the form of social contact and support as components of "psychological first aid" is crucial to recovery (Gordon, 1997). Debonding initiates a compensatory search for connectedness as soon as the threat is removed, and this leads to the next process to be described.

Debonding in Event Disasters.
Disasters that are more restricted in their impact, such as transport accidents or terrorist attacks can be likened to a sharp instrument devastating part of the community, severing specific structures and creating structural changes. Figure 3 portrays the disaster event slicing into the community fabric, wounding it by severing the bonds in its path and debonding immediate, adjacent and distant structures with bonds to the affected elements.
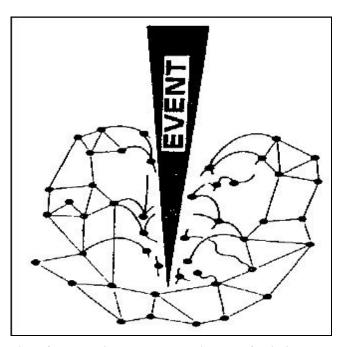

Figure 3. Debonding of community structures on impact of a limited scale event disaster.

> The boundary between those affected and those not, may constitute debonding, as described by a victim of the Tokyo subway sarin attack. The victims were brought to the surface and lay in the roadway as others unaffected continued on their way to work. She described it as, "The half of the roadway was absolute hell. But on the other side, people were walking to work as usual. I'd be tending someone and look up to see passers-by glance my way with a 'what-on-earth's-happened-here?' expression, but no one came over. It was as if we were a world apart" (Murakami, 2000, p. 16).

The pattern of impact differs in these two situations. Nevertheless in each case the community as a whole is affected. Everyone is touched, depending on their proximity to the events, position in the structure, support systems and other factors. Debonding accounts for the confusion common in the immediate aftermath, since structures needed to deal with the disaster are themselves affected (Auf der Heide, 1989). The social aspect of disaster results from the structure itself being subjected to trauma, although no-one can see the community as a whole, since each person only sees their own part.

Limitations and Variation of Debonding.
Like all social processes, debonding is variable. It indicates the existing community structure has been temporarily abandoned. Although described as a moment and part of a sequence, it

may be incomplete or not for the whole community at the same time. Debonding may be partial or pervasive, depending on the severity of the threat. Some people debond more fully than others, while some rebond more rapidly than others. It may be predominantly psychological when a person expects to die and readies themselves by detaching from loved ones and their future; it may be predominantly interpersonal when a person is changed by their experience and the assumptions on which their relationships have been based no longer seem important; it may be predominantly social when isolation or lack of knowledge mean other people or the community is not available or cannot be relied on; or it may be a combination of all three. Debonding is a psychosocial process, indicative of the normal social structure being set aside because of the threat, and may occur at any point in the sequence. In a drought, for example, debonding develops gradually, where economic hardship and fuel costs stop rural people travelling and they neglect social interaction. Wherever a highly arousing threat occurs that falls outside normal social life, some form of debonding can be expected.

Immediate Post-Impact.
As soon as the threat has passed, victims become rescuers, bursting into action, usually in a controlled, rational manner, providing or seeking help with skill, competence and effectiveness (Mileti, 1999). High levels of altruism and self-sacrifice are common in most disasters. Up to 75% of healthy survivors engage in search and rescue activities without waiting for official response and make their own way to medical or other resources, turning first to familiar local providers (Drabek, 1986). Social networks are strengthened with common values of sacrifice and altruism, and barriers tend to disappear (Leiversley, 1977). People gather in the affected area and milling is common by those not directly affected. Convergence on the disaster site combined with the state of high arousal and natural rebound from debonding motivate intense social connectedness as people re-establish communication.

Behaviour in the aftermath initially involves seeking information, contacting loved ones and community members. However, information is often incorrect or unavailable, continuing the isolation or initiating stress if the event horizon persists and debonding cannot be reversed. Reuniting family members leads to a temporary heightening of morale and reduces the emotional impact of the emergency (Grossman, 1973). Where officials interfere with the need to re-establish contact with family members, it is common for people to become aggressive and disobey efforts to control them (Drabek, 1986). When the safety of others is established, groups spontaneously form around tasks, but demands often exceed capability. Coordination and authority are lacking, community preparedness and experience are often low and the scope of the crisis ill defined. Community resources re-orient towards recovery tasks by reducing some functions, and formal channels of social participation are replaced by informal mutual support (Drabek, 1986). Many pre-disaster functions are not suited to the aftermath, encouraging new groups and community leaders to emerge; disaster-specific norms and principles begin to organise those involved (Drabek and McEntire, 2002).

A disaster community is created by the combination of convergence, altruism and high arousal. People are united by immediate, obvious tasks. Community identification is strengthened and public order spontaneously upheld. Intolerance of outsiders and temporary reduction of social distance, especially class boundaries mean inter-group differences decrease conflict and increase cooperation. The influx of workers and volunteer helpers and their intensified involvement with

each other often results in loss of normal boundaries between individuals, families and groups. This state has been called the "altruistic" or "therapeutic community" or "democracy of common disaster" (Drabek, 1986).

Rebound from Debonding.
People require systematically organised bonds and relationships to function effectively. Their loss is highly threatening. Therefore debonding is countered by a powerful tendency to establish new networks as soon as possible. This process of rebonding may last minutes, hours or days. Debonding may persist longer in some situations than others and rebonding may occur in one locality, while debonding persists elsewhere. However, debonding evokes the need to rebond. In the immediate aftermath a complex process of setting aside, breaking and reforming the various types of bonds occurs.

The social structure arising in these conditions is not the crystalline structure of Figure 1, since survival issues are still paramount. People form indiscriminate, intensely bonded survival-oriented groups. The atmosphere of intense comradeship and high morale is referred to as the 'honeymoon' or 'high' because of the altruism and cooperation, indicating the closeness and uniformity of the bonding (Raphael, 1984; Drabek, 1986). The intense relationships formed do not acknowledge differences, but are conditioned by the needs of the situation. The community become an undifferentiated unit. People are strongly bound into a survival-oriented, unified group, organised along simple communication lines based on the disaster response system and immediate needs. Bonds re-form out of the multiple communications, constituting a relatively homogeneous network.
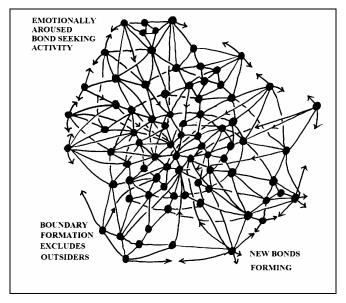

Figure 4. Following impact, debonded community members form intense, indiscriminate social bonds based on the common disaster experience and the tasks required forming a "fused community."

It is a social system defined by the survival task, but it dispenses with the formality and functions of normal social life that are not directly related to the emergency. The new system has little hierarchy and involves everyone in a common process. It combines personal support functions

and practical tasks, unifying the previous formal and informal social systems. Since it lacks the intricate communication structures in the pre-disaster community and the distance between clusters and sub-groups is lost, it can be described as a "state of fusion." Figure 4 shows the community in a state of fusion following an "area disaster" with a widespread impact.

Bonds formed under the pressure of these circumstances display a number of characteristics. They tend to be:
- Task-focussed,
- Present-oriented,
- Indiscriminate,
- Uni-dimensional around the disaster,
- Hyper-aroused because of the danger and unusual situation,
- Indiscriminate as people attach to whomever is available,
- Stereotypic around the common experience
- Differences are viewed as irrelevant
- Unstable.

The bonds draw community units closely together into a cluster rather than the pre-disaster differentiated lattice.

Specific emergency scenarios may determine different patterns in these phenomena. A bushfire or hurricane impacting on a whole community causes a relatively uniform process; in droughts, slow moving floods or economic emergencies, the process is more gradual and inconsistent. Fusion may exist alongside debonding, and while many social activities cease due to economic hardship, people readily group together for mutual aid outside normal structures, but remain focussed on the crisis.

> In an evacuation centre surrounded by bushfire on Ash Wednesday 1983, people waited not knowing if the building would burn with them in it. They sat in family groups with pets and animals barely talking. As people came in, they announced what they knew, which was rapidly passed from one to another. At the height of the danger, someone started singing and everyone joined in except for a few who were in tears. This describes the fusion where previous relationships and differences are set aside and replaced by the emergent relationship of collective survival.

Fusion in Event Disasters.
In an "event disaster" such as a criminal event, only part of the community is affected so rebonding and fusion are more restricted. Rebonding occurs wherever debonding was brought about. Affected structures fuse along the line of impact. While the surrounding structures maintain their previous relationships, impacted structures fuse like the formation of "scar tissue" in an untreated wound. Like scar tissue, fused structures contract, pulling surrounding organs out of position and interfere with their proper functioning. In the community, this is expressed by affected parts forming an intensely bonded sub-system whose characteristics relate more to the disaster experience than pre-disaster functioning. But surrounding structures still maintain normal roles. There is a discrepancy between impacted and non-impacted parts of the system. Figure 5 shows fusion resulting from rebonding along the line of impact in such an emergency.
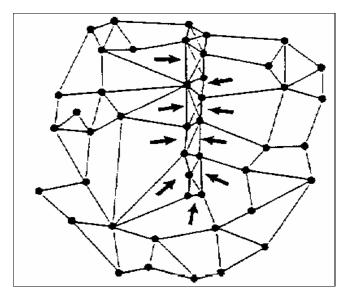
Figure 5. Rebonding and fusion of affected structures in a restricted impact or event disaster.

Fusion as mobilisation of recovery resources.
In the state of fusion, members identify with each other because they share the same experience; they feel strong emotional attachments because of what they have undergone together and rapidly develop a shared disaster culture of stories, incidents, symbols and memories. It is a radical reorganisation of the pre-disaster structure, directed to new goals. Compared to the normal system it is deregulated, but adapted to meet the requirement for a social structure to fill the gap caused by debonding. In the fusion, the community expresses determination, makes heroic efforts, combining many people largely without disputes and disagreements. Fusion has a protective function, immersing members in collective action. If it is prevented by evacuation and loss of contact with other victims, debonding may be reactivated and recovery impaired in spite of being embedded in the wider society (Kaniasty and Norris, 1999). The more total the fusion is, the better the recovery commitment, but the greater the social disruption.

Heightened community solidarity, intolerance of outsiders and temporary reduction of social distance, especially across class boundaries occurs. Inter-group differences are lessened, cooperation is increased and conflict reduced. Unification of the community compensates for reduced organization Community cohesion in the fusion is favoured by external threat, high consensus about priorities, urgent common problems, focussing attention onto the present, levelling social differences and strengthened community identification (Drabek, 1986). The presence of others sharing the same fate helps individuals evaluate the impact and validate their judgements, but may also encourage them to make light of their own problems compared with others. Mobilising community support and sharing the experience allow assumptions that may have been shattered by the event to be re-established by collective experience. However, if all members are affected, supporters may be unable to meet the needs owing to their own condition (Kaniasty and Norris, 1999).

As community resources re-orient towards recovery, some functions are neglected, such as enforcing regulations and laws irrelevant to the situation; crime is likely to be reduced (Siegel, Bourque and Shoaf, 1999). Formal channels of social participation are replaced by informal

mutual support functions. Disaster-specific norms and principles organise activity. While there is continuity of social resources and culture, there is discontinuity of functions not suited to the emergency situation as new groups, organizations and leaders emerge (Drabek, 1986). Emergent roles are filled because of people's experience, skills or other relevant qualities rather than their formal position.

Fusion as a threat to community integrity.
Some destructive consequences of the fusion begin to follow as the loss of interpersonal distance becomes more evident. People may feel they lose privacy and respect from the recovery system. They may initially commit themselves deeply to the recovery task without regard to their own needs and then feel obligated and unable to take time or privacy to attend to their personal and family life. The community may predominate at the expense of individual needs. The fusion also sets up personal and community expectations that prove impossible to meet and may lead to tensions and conflicts later. The closeness created also means anyone not present at the point of fusion is felt not to be "one of us." It is expected they cannot understand what it was like or they lack genuine concern for the community. The social system becomes overloaded because everyone needs more than is available and its changing emotional state makes it unstable. There is rapid boundary formation between the fusing social structures and others, resulting in exclusion, gate keeping and rejection of non-affected others, even when their help is needed. The boundary around the community forms for protection and to facilitate organization, although it has the effect of excluding or treating outsiders with suspicion, even when they have legitimate roles and contributions. The fused community orients around the common problems and intensity of relationships and this risks debonding it from the larger society on which recovery depends (Drabek, 1986).

If they are not present as the community fuses, incoming recovery workers may have difficulty in gaining acceptance as they endeavour to insert themselves and restructure the system to serve recovery needs. Recovery agencies and service providers who are present are welded into the system and become part or it. A similar attitude can develop between sub-groups of directly affected people and other less-affected parts of the community. The fused community or those parts in fusion are also likely to overvalue their own capacities and not clearly identify their need for outside help, or they may reject help at the expense of exhausting their own resources.

The fusion breaks the continuity of normal community structures in a highly energised reorganisation of the communicational system. It is a secondary source of disruption after debonding and a threat to the pre-emergency structure that provides for long term needs. Provision of short-term emergency needs may be at the expense of long-term recovery and return to normality. Tension develops between these trends, which reverse the fusion state, often within a month (Sweet, 1998). Pre-existing social, ethnic or group tensions cause fusion in groups rather than the whole community, resulting in the early manifestation of disaffection and conflict. The fusion state is unsustainable and relatively brief, leading to the next process.

Short-Term Personal Responses.
Although many people do not suffer from traumatic stress reactions, numerous common responses indicate the acute stress that has been experienced and register the unusual efforts and emotions involved in surviving.

- Psychosomatic symptoms are common such as fatigue, high blood pressure, digestive problems, overeating, headaches, diarrhoea, constipation, rashes, hair loss, sweating, trembling.
- Symptoms of high arousal persist, such as exaggerated startle responses, over activity, reluctance to rest, lack of awareness of needs, restlessness and sleeplessness, anxiety, nervousness, irritability, anger, feeling overwhelmed and hopelessness about the future.
- Cognitive problems include difficulty with memory and decision-making, thinking clearly and setting priorities.
- Emotional reactions include feeling confused, dazed, numb or detached, unable to feel it is real; moods fluctuate swinging between enthusiasm, optimism and confidence at times and then depression, pessimism and feeling overwhelmed. Other common feelings are guilt, fear of the future, blame and inappropriate humour.
- Interpersonal reactions express continuing debonding by feeling withdrawn or detached or fusion in clinging, insecure feelings, wanting to know where loved ones are all the time.
- Social reactions show heightened concern for others, anxiety and compassion, perhaps competing with self centred concerns and greater involvement with community events. Indications of support or lack of it from the larger society are deeply felt. They may be portrayed by the media or political actions, relief measures or other events that have symbolic meaning for the affected community.

Over-involvement in the collective action of recovery may postpone or interfere with the resolution of personal reactions by continuing a coping mode which prevents people from identifying and attending to their needs (Forster, 1992; Yates, Axsom and Tiedeman, 1999).

Stabilisation and Social Differentiation.

As the emergency and its consequences subside and demands of life accumulate, the unity of the fusion breaks down. The fusion as an unstable, expedient measure to cope with threat, cannot provide for longer-term needs. Its temporary arrangements must give way to the re-emergence of the normal multidimensional crystalline structure. Compared to the homogeneity of the fusion this involves a process of "social differentiation" as social units and subsystems previously unified around the common values and priorities of the emergency reorganise themselves into a complex system around differences of role and relationships. Ideally, this is a planned transition from the highly energised, improvised collective state to the pre-established community. However lack of planning, inexperience, conflicting agendas and social inequality introduce tensions and conflict. While the differentiation process itself is necessary and inevitable, it proceeds according to the nature of the emergency and community. Two pathways can be described; first, uncoordinated resurgence of differences causing differentiation through conflict; second, coordinated development of social complexity integrating emerging needs into the existing system.

Structures to serve normality must be re-established. Although there is a tendency to maintain high emotional arousal, unrestricted personal interaction and communication, people soon feel the need for separation, privacy, and disengagement. Formal systems reassert normal functions, which seem ponderous and bureaucratic to those still highly aroused. Shared experiences and emotional responses make the fusion like a "pressure cooker" and social interaction exacerbates stress and increases aloneness. Rumours amplify conflicts and inequalities, resulting in growing

tension (Sweet, 1998). Seasonal and political timetables demand the society return to its normal functioning and exclusive concentration on the disaster cannot be maintained. It has to convert from a social system oriented around the disaster to one in which the disaster is only one of many problems.

Signs of the developing conflict phase include: general disorientation about the recovery situation, failure of leaders and recovery organizations to respond effectively to needs, agencies clinging to pre-disaster modes, reduction in social controls, weakening of the rights and obligations defining members' roles in the community, disruption or breaking down of traditional groupings and interpersonal loyalties, practical or emotional inability to plan for the future, and reduced openness to innovations (Klinterberg, 1979; Kaniasty and Norris, 1999).

Differentiation of the Fusion.
The fusion is attacked by three distinct forces attempting to develop a differentiated structure, but for different purposes. The first and most obvious is the need to shift from a survival-oriented to a recovery system with a variety of integrated short and longer-term services. This system has not existed before if the disaster is a new event in community history, and it involves new agencies and personnel and must relate to organizations outside it. It has to be formed from the existing fused community and imposes rapid change on it.

The second force is the pre-disaster community structure, which is not designed to meet disaster demands. It was a highly organised system consisting of local government, local services and agencies, and local branches of State services, as well as individual community members. It must undergo rapid change to adapt to the new requirements, but also re-establish itself and take stock of how the disaster has affected its ability to carry out the task. It must emerge from the cooperative mass of the fusion and establish formal links of communication and procedures. This can be seen as meaningless bureaucratic activity compared to the emotional high of the fusion.

The third force operating against the fusion is the emotional reaction of community members. The unity conferred by everyone having been through the same events is a basis for comradeship, but the differences separating members from each other soon reappear. It becomes evident that the sense of unity no longer applies, and conflict occurs. In a bushfire, those who have lost houses have very different needs from those who did not, yet they also are affected, sometimes severely. It may be difficult for these groups to understand each other when decisions have to be made. The intensity of emotion initially bound up in the collective sharing of the fusion takes on a more personal meaning as the consequences of the disaster sink in. Anger begins to emerge and there is often a search for someone to blame.

These three forces struggle simultaneously in the same space with the same material - the community members and resources - in order to achieve their objectives. The fusion can break up constructively by establishing a recovery system, which integrates the forces, by recognising the various elements – emergent disaster groups, pre-disaster community structures, formal and informal recovery agencies and services and those planning for future development – and integrating them into a communication and decision making system. Tensions and problems can then readily be identified and tackled. But the local system must ensure the recovery programme

is appropriate to the community and takes account of historical and other factors, or else it will make mistakes and impede the recovery process. However, if these forces are not managed as they arise, differentiation may be destructive. The re-emergence of the pre-existing local system carries its own tensions and historical conflicts that use the uncertainty of the recovery period to gain advantages, and power struggles may occur.

Emergence of Cleavages.
Pre-existing divisions and conflicts over-ridden by the initial fusion begin to re-appear. Social political, ethnic, cultural and economic "fault lines" reassert themselves. Sometimes, established social tensions associated with ethnic or disaffected groups emerge; in technological disasters solidarity develops in interest groups rather than the whole community (Mileti, 1999). This often occurs at a precise turning point, when the various forms of deprivation begin to be felt, which marks the beginning of a conflict or "bitch phase" (Drabek, 1986). Conflicts develop between community organizations, disaster relief agencies and emergent organizations, exacerbated by pre-existing group, organizational and community differences. Emergent groups themselves often begin to manifest internal divisions in this phase. The disaster and its effects may be exploited for political purposes. Conflict is amplified by politicising recovery, activating ideological values that do not reflect loss patterns (eg, equal opportunity, anti-discrimination), and vested interests inconsistent with community needs (Drabek, 1986). Experiences and emotions are communicated in the close interdependence of the fusion, where social interaction and emotional contagion exacerbate stress and increase the sense of aloneness rather than alleviating them. Rumours thrive amplifying conflicts and inequalities. Personal relationships reflect these qualities as couples find each other is unable to be supportive and listen to problems because of their own stress (Drabek, 1986, Kaniasty and Norris, 1999).

A "pattern of neglect" is often evident with some groups receiving relatively less services than others, such as older people, those on lowest incomes and the ethnically marginalised. Outsiders without prior personal involvement in the community may be able to assist in bridging these conflicts. Aid provided to common community services tends to be less divisive and more generally accepted. However, a "pattern of concern" is also often present that identifies vulnerable groups and mobilises community resources to assist them. Support networks and help patterns are extensions of pre-emergency personal and community relationships, indicating the therapeutic community is not purely emergent, but the enhancement of pre-disaster resources. Those who trust the community and its structures are more likely to provide help to others (Drabek, 1986). In spite of this, support available is often insufficient to compensate for the deterioration in personal and community relationships as social networks become overloaded. Disappointment, disillusionment and cynicism develop, as the idealistic, altruistic atmosphere is lost, which for some people can lead to lasting bitterness (Kaniasty and Norris, 1999).

The emergence of differences in the unified experience of the emergency comes into conflict with stereotypic assumptions engendered by the focus on external circumstances of the emergency. Pre-existing differences and those deriving from the complex effects of the emergency tend to be set aside by the fusion, but become important with time. The emotionally charged communication of the fusion promotes rumours, myths and irrational beliefs about the actions or responsibilities of community groups. Tensions are amplified since fused social structures have inadequate systems to evaluate information or manage emotions and they

develop into conflict and rivalry. They are expressed personally, but represent differences in impact of the disaster on groups. People have said the fusion "represented a high point" in their lives; "why couldn't such cooperation always exist;" "now you can see how much good there really is in human nature;" its loss is a great disillusionment. If these events are not managed constructively, they can harm the community, and aggravate members' post-disaster reactions.

The boundaries between these groups generate animosity, competition and conflicts as their representatives meet in public forums. The multiple differences embedded in the apparently unified social system of the fused community when brought into salience by recovery processes, risk splitting it into bitterly competing groups. The differences cut across existing disaster-related or pre-existing bonds and sever their connections in the intense emotions generated. The boundaries between these groups can be likened to "cleavage planes" in the community that split a previously cohesive unit. Cleavage planes in gems denote a plane in the structure where the bonds are weakened and it will break if cleanly hit. In the social structure, cleavage planes are contact boundaries between groups with different interests, attitudes, background or experience. Normally, multidimensional bonds holding the community together inhibit cleavages from occurring, but, after disaster the community is vulnerable to such splits, because the fusion is one-dimensional around the disaster. Any issue differentiating members or sub-groups constitutes a potential cleavage plane. Figure 6 shows cleavage planes splitting the social fabric of the fused community as various types of differences come into operation during the recovery period. The effect of this is to sever bonds by the breakdown of effective communication. They include loss, differences in experience, compensation, locality, etc.
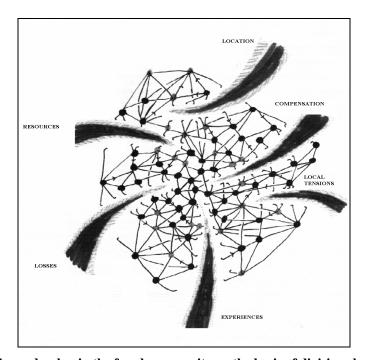

Figure 6. Cleavage Planes develop in the fused community on the basis of divisions between groups affected differently by the disaster or recovery factors.

In a flood or bushfire, the groups comprise those who lost houses versus those who lost other possessions, those who are insured versus those who are not, those eligible for

assistance versus those who are not, those who remained during the emergency versus those who did not, those who intend to rebuild versus those who do not. Those who lost houses sometimes excite envy among some of those who did not; snide comments are passed about the size of new houses compared to old ones. However, the new house is often unwelcome to its owners, who ask friends not to visit until it feels lived in, instead of like a motel.

In a city office massacre, those from unaffected floors accused those whose lives were in danger of creating problems out of nothing by talking about it, when those affected were unable to get the events out of their minds.

A public meeting in which a politician announces aid measures, splits those who are advantaged from those who are not.

After a sudden flood, the residents of a country town saw only some areas were evacuated by police, but the used car dealer had been warned and moved his stock to higher ground. Low-income areas were not evacuated and rumours accused the police of being corrupt and taking care of their mates. However, the flood fell outside the areas designated on flood maps used to evacuate designated flood-prone areas. By the time they realised they were obsolete, police could not access those areas. There were cleavages between citizens and police, local government and state officials, between residents from evacuated and non-evacuated areas, between those flooded and those not and between small business and residents.

After bushfires, cleavages occur between "greenies" who live in the area for the environment and want to revegetate, and others who blame the fire on trees and advocate extensive clearing and more stringent local government regulations. These conflicts can only be worked out as part of a comprehensive re-development plan for the entire district.

Cleavages are defined by emergency and recovery circumstances including how arrangements unify or differentiate community members. They are circumstantial and inconsistent with pre-emergency attachments or structures. The impact of the disaster creates differences and boundaries that bear little relation to the structure of groups and relationships that form the social support networks of community members. Families and close friends provide support to each other, but if one is insured and the other not, it is likely to interfere with their ability to assist each other. Cleavage planes disrupt the fusion's tendency to unify people, diminish their group or personal resources and emphasise their uniqueness or what they share with subgroups. They fracture support structures independently of pre-disaster social structures at the point they are beginning to emerge from the unit of the fusion. They tend to remodel the community system so that it incorporates the disaster effects into its structure. New identities, systems of communication, common values and boundaries, are formed and maintained at the expense of earlier systems. Bonds are not broken and reformed by normal social affiliation, but out of the sufferings brought on by recovery.

Cleavage Planes in Event Disasters.
Figure 7 shows a disaster affecting a portion of the community in an event disaster; cleavage planes occur within the fused part and between it and the surrounding structures with consequent destructiveness of both directly affected and other structures.
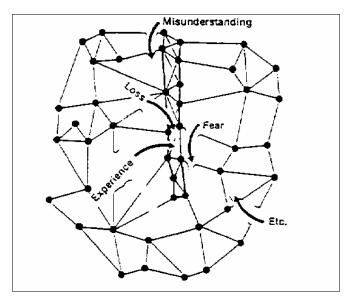

Figure 7. Cleavage planes in a community with fused structures following an event disaster.

Signs of this loss of solidarity include: disorientation about the recovery situation; failure of leaders and organizations to respond to needs effectively; agencies clinging to pre-disaster modes of functioning; reduction in social controls; weakening of the system of rights and obligations defining members' community roles; disruption or breaking down of traditional groupings or social forms that provide the framework for interpersonal loyalties; practical or emotional inability to plan for the future; reduced openness to innervations (Klinterberg, 1979).

Cleavage planes are not just a function of differences in recovery; they are also driven by the need to dismantle the fusion and allow community members and groups to re-establish their identities. The same principle is evident in individual or family development where relationships that do not allow enough independence lead to conflict as a means of creating the required separation. Cleavage planes have an adaptive function in the absence of more constructive processes of differentiation and separation. They are not just a function of real differences, but also of how they are perceived. Their potency can be reduced if an active program to support early differentiation of community groups begins before the fusion breaks down. Co-ordinated differentiation beginning as soon as possible, is the basis for an alternative process to the development of cleavages.

Managing Community Differentiation.

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New organizations create new links and associations with each other and established services forming a "synthetic community" (Thompson and Hawkes, 1962). The community is

restructured with a modified network of organizational relationships that may involve new and more extensive agencies. As stability is attained and normal relationships are restored, the synthetic community gradually loses its function with the return to more complex, pluralistic decision making and allocation of resources.

Management of destructive differentiation and cleavages requires development of a social system that integrates post-disaster social forces within a comprehensive recovery plan. Based in local government or other community agencies, it can establish relationships with the various interest stakeholders to ensure consultation and participation in needs assessment, planning and delivery of services. Where possible, it promotes groups to form and advocate for their own needs or helps them cater for themselves and ensures recognition of the extent of the impacts. Empowering and supporting victims' ability to cope is a keystone for their recovery (Benight and Harmer, 2002).

Plans to manage recovery using adaptations of normal community systems can be activated, and by incorporating emerging groups into a broad system of communication, existing community processes and structures can reorganise themselves to adapt to recovery needs. Appropriate policies and resources are essential, but not sufficient to successful recovery. The need for cleavage planes as social organisers is diminished as long as the complexity of subgroup and individual differences is acknowledged and equitable relief measures backed by appropriate support. But rigid reassertion of pre-emergency relations of power and control will not recognise emergency needs and will motivate cleavages. Co-ordination depends on adequate information about all parts of the community and differentiating groups around their legitimate needs and differences. This can be seen as a complex communication task ensuring that interest groups are validated and integrated into a larger co-ordinating group.

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A community and social infrastructure must deliver services to affected people as they need them and provide constant feedback about changing needs that allow them to be effectively targeted. This means developing a set of new flexible bonds to bind the multiple, disparate elements into a functional system. As discussed above, social bonds are expressed as communicational relationships. Constructive differentiation is supported by developing a communicational infrastructure to define and integrate the community, while establishing boundaries, intimacy and distance. Such a system becomes a supportive environment for individuals to set about the task of integrating the trauma and re-constructing their lives. The community will be re-shaped by the disaster, but if recovery is harnessed to a broader community development strategy, disaster recovery and the ongoing life of the community become complimentary.

Social bonds as products of communicational relationships provides a technique to transform the fusion into a new crystalline structure. New bonds need to form as issues and differences arise breaking up the fusion to serve the changing affiliations of community members. New communication channels facilitate opportunities for new bonds, and new bonds lead to new structures, which in turn establish new post-disaster identities. These structures will be adapted to recovery if communication is focussed around identifying needs and difficulties within the community. Each issue needs to be related to the whole so there is scope for a new sense of

community that can integrate the disaster into its history and facilitate development of new support networks among those who have new disaster-related issues to bring them together.

The constructive differentiation process is illustrated in Figure 8, as an intermediate step towards the establishment of a new crystalline structure. A co-ordinating group in the centre (usually with a combination of managers, service providers and community representatives) facilitates communication between the emerging groups so that as concerns become evident they are communicated throughout the system and acknowledged (even if not necessarily remedied). A social environment is promoted in which individuals and groups can find new relationships around new needs; pre-disaster support networks are also preserved, by ensuring rumours and myths are detected and corrected by effective communication, consultation and decision making.
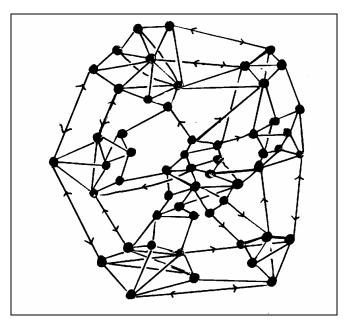

Figure 8. Constructive differentiation through coordinated development of interest groups and building active communicational relationships between them and the coordinating body forming new social bonds.

Medium Term Personal Responses.
The social reorganization following the disaster usually leaves some people more vulnerable than others. The altruistic therapeutic community does not incorporate all community members and those who are overlooked, excluded or rejected feel alienated and abandoned. In large scale or highly traumatic disasters, emerging needs often outstrip resources leading to disappointment and disillusionment. Support mobilised is often insufficient to compensate for the gradual deterioration in personal and community relationships as social networks and relationships become fractured and overloaded. The impact of the disaster also interacts with concurrent social process such as rural-urban drift; changes during recovery interfere in community identification, disrupt support networks and reduce resources (Kaniasty and Norris, 1999). As recovery proceeds, post-impact helping relationships and altruism gradually fade. Volunteers return to their other lives. A significant number of people develop psychological difficulties such as stress responses, reactive depression to losses, psychosomatic conditions, anxiety, posttraumatic responses and survivor guilt (Fullarton and Ursano, 1997).

Frustration, stress, exhaustion and helplessness result in anger, blaming and conflict, often directed at those responsible for providing services. Helpers may retreat into increased bureaucracy and regulations. Loss of privacy and constant involvement with agencies interferes with reconstituting personal social support networks. The perception and evaluation of loss depends on awareness of others' losses. Community reactions alleviate or aggravate personal reactions, while individual reactions may be exaggerated when shared by other community members (Kaniasty and Norris, 1999). Individual and collective responses are simultaneous facets of a whole.

<p align="center">**Longer Term Recovery.**</p>

Although many of the most urgent problems are resolved in the first few months after the emergency, recovery takes years. Throughout the first year, each new phase brings new problems because of the changes in life and context. Some social consequences do not show up until the same season comes round again or support services are withdrawn. Recovery interventions need to adapt normal community systems to current disaster-related needs, recognise emergent groups and establish specific recovery activities attuned to changing needs. They provide a template for the development of a new social infrastructure embodying the norms and values of recovery that can then gradually be converted back to normal life in a planned way.

Longer Term Personal Responses.
For those affected, long term recovery brings many challenges. A survival lifestyle may develop, lacking enjoyment or leisure. There may be loss of attachment to place and reduced participation in community events suggesting reduced morale and a tendency to put social life on hold. The structure of social relationships is permanently changed. Expectations of support from extended family and friends declines, leading to disappointment in the availability of help. Family cohesion and quality of relationships may be enhanced, but social relationships also deteriorate in diffuse, delayed and not easily recognised ways, particularly where provision of recovery services has disregarded natural groupings and networks (Drabek, 1986).

While approximately 10-20% of people are likely to incur significant disability from posttraumatic stress, anxiety, depression, substance abuse and social or interpersonal changes that persist for long periods (more than 6 years), about 10-15% consider their mental health to have improved (Drabek, 1986). Other individual reactions are associated with impersonal and inefficient support systems after the event (Kaniasty and Norris, 1999). However, most people make a good recovery in the long term, but have lasting effects including: reduced attachment to material possessions, changed values and life priorities, heightened sense of vulnerability associated with preparation for protective action, greater understanding of the supportive capacity of their community, feeling closer to family and community, pride in their ability to meet a challenge and increased religious feeling (Drabek, 1986).

Long term deterioration in physical and psychological health include: headaches, irritability, nervous tension, depression, worrying, fatigue, sleep problems, weight change, digestive disturbances, shortness of breath, rheumatism, hypertension, bladder problems and ulcers. Serious emotional problems may develop as delayed reactions when normality has returned.

The Dynamics of Recovery.

The community processes set in train by a disaster are not confined to the incident itself. It initiates a rolling series of repercussions in different parts of the system, that continue through debonding, fusion, and differentiation. Other factors add to the disruption. Physical or climatic changes provide a dramatic increase in stress levels, such as the first rains after a bushfire creating a quagmire in the ground devoid of vegetation while many are still living in caravans. Political events, like the announcement that a state of disaster will not be declared after a fire, may seem like a callous rejection by government. The death of a local child in a car accident during the recovery period seems the start of a series of tragedies. The planned restructuring of a corporation following a massacre disrupts support networks and adds multiple losses through retirements, to the deaths from the disaster. Other repercussions are evident later. When burnt-out or flooded farmers expect the autumn pasture, they realise it will take several years before they can run stock. The closure of businesses ruined by a disaster reduces employment in the area. Such changes are an integral part of disasters and must be anticipated by the recovery process.

This model of the disaster process is represented in Figure 9, as a graph of community functioning shown falling at impact and as it rises in the subsequent recovery period is met by a series of other disaster-related repercussions, which impede recovery and reduce community functioning in each case. Successful recovery anticipates, prepares for and meets these repercussions as the emergency reverberates through the community systems.
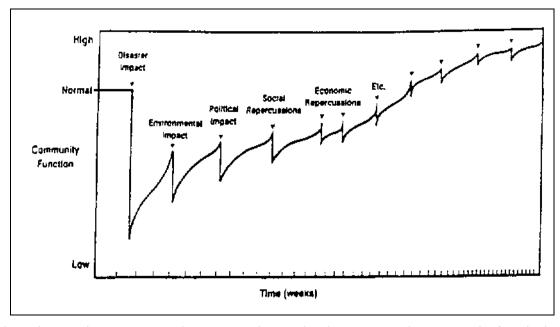

Figure 9. The disaster repercussion process with multiple impacts reducing community functioning.

Strategies for Recovery.

Disruption of social support networks and community cohesion undermine recovery and increase psychological distress, but strategies that preserve social organization reduce the destructive effects (Salzer and Bickman, 1999). The theory of community process provides a framework for recovery strategies to intercept and mitigate debonding, fusion, cleavage planes and

differentiation. It is tempting to see them as discrete phases, but this is simplistic. It is more accurate to consider them as interlinked processes initiated when an emergency threatens a social system that is unable to respond. It is a matter of assessing when and how much debonding has occurred and to whom, how much fusion occurs in consequence and how the fusion responds to the need for differentiation as opposed to forming cleavages. The principle that social bonds are constituted by communication relationships suggests strategies to mitigate these processes.

Strategy 1: Prevent Debonding.
Anything that prevents or reduces debonding intercepts the process at its start. The following strategies to assist with this:

1. Planning and preparation mean roles and tasks are practised and ensure survival does not require suspending normal structures otherwise the system debonds and improvised, emergent structures have to appear (Drabek and McEntire, 2002).
2. Provide roles and tasks related to the emergency to preserve social organization. This occurs in orderly evacuation and in areas with regular emergencies such as regular cyclones, where debonding is unlikely.
3. Preserve pre-disaster organization by adapting it to the emergency. When the disaster is not outside the range of possible events, existing systems are adapted to the response rather than improvising emergent systems.
4. Preserve continuity of social systems, community norms and availability of personal support.
5. Leadership needs to be committed to cooperation and coordination rather than command and control (Drabek and McEntire, 2002) to preserve normal community decision making processes.
6. Curtail the event horizon by establishing and maintaining communicational continuity with victims as soon as possible.
7. Preserve communication links to affected people to reduce debonding and intercept the disorganising effects of fusion. Maintenance of communication enables immediate needs to be identified and met and preserves continuity of care, reducing arousal and restoring normality (Gordon, 1997).
8. Provide relevant, accurate information about all aspects of the emergency to the community as a means of promoting common understanding and collective identity. Information activates communication, forms bonds, reduces uncertainty and provides knowledge, enabling people to initiate their coping capacities at the earliest opportunity (Benight and Harper, 2002).

Strategy 2: Minimise Fusion.
Fusion represents the most significant discontinuity from the pre-disaster state; but fusion disrupts it altogether. If the social units rebonded back into the previous structure there would be little disruption. However, abnormality and threat promote fusion. Reducing the intensity and disruptiveness of the fusion and promoting differentiation at the earliest opportunity by re-asserting normal roles and processes, reduce disruption of the normal crystalline community structure. Strategies to promote this include:

1. Preserve or re-establish pre-disaster roles, functions and communication systems (Bosworth and Kreps, 1989). Ensuring social and community structures for long-term recovery are built into it when fusion does occur.

2. Integrate new disaster-related tasks and roles into existing systems by extending and adapting them to meet emerging needs. The more inflexible the structure is, the more emergent systems arise to fill the gap, but with increased complexity and loss of coordination (Drabek and McEntire, 2002).
3. Accurate information about the situation assists organization, reduces arousal, myths, rumours and emotional contagion. Structured communication in group and community meetings, convened by those with responsibility activates community processes.
4. Encourage checking and validation of information to discourage emotional contagion.
5. Provide for communication needs, and dedicated media, such as meetings, newsletters, websites, telephone hotlines etc.
6. Encourage community advocacy and self-efficacy through emergent groups, formal and informal networks, and other structures promoting self-efficacy. They are an asset to recovery, provided they are integrated into the organization (Drabek and McEntire, 2002).
7. Assist in defining the membership of interest groups and work with inclusive identities. Recovery managers need to define interest groups in the widest terms since the effects are uniquely social, unlike routine crises (Auf der Heide, 1989).

Strategy 3: Short Term Personal Support.
Effective early interventions for personal support are based on a preventive care model, including:
1. Early education about responses since people often do not understand their reactions.
2. Establishment of security, meeting physical needs, access to significant others, empowerment and advocacy (Ursano and Fullarton, 1997; Gordon, 1997).
3. Opportunities for informal contact with trained mental health professionals to facilitate gaining information about managing their reactions.
4. Disaster-related support organizations provide valuable support to victims, when coordinated and staffed by local workers with community sanction.
5. Formal mental health services are utilised by about 20-40% of affected people, depending on the severity of the trauma; where young children are involved, the proportion may be higher (Drabek, 1986), but most of the community use information, education and advice about self care.
6. Disaster trained mental health workers have an important role as consultants and advisors to the other service providers.

Strategy 4: Intercept Cleavage planes.
Since cleavage planes come into operation because of perceptions of difference as much as actual differences, there is scope to reduce their effect by intercepting issues in a pro-active way as they develop. Some can be anticipated from the pattern of effects, pre-existing inequalities and tensions, while others are unpredictable and a function of emerging events.
1. Pre- and post-disaster inequalities need to be mapped so holistic services can be planned recognising the range and complexity of issues and anticipate the effect of the disaster on them.
2. Constitute a community "sense organ" by convening groups and existing community networks enhanced by representatives from disaster recovery services to identify

differences as they emerge before they become cleavages. If responded to piecemeal, they are less likely to be defused than if the broader pattern is the basis for intervention.

3. Support this with outreach programs to affected people to consolidate information and encourage representation of all interests in the co-ordinating system. Issues identified must be collated and integrated to identify community patterns.
4. View all anecdotes of tension and conflict as potentially inter-group events and identify whether the problems would be present for other members of groups involved.
5. Publicising common issues shared by groups, with strategies to ameliorate them enables people to feel it is not just a personal problem, but something others experience.
6. Information lacks and inequalities need to be identified and remedied with a comprehensive communication strategy using recovery-specific communication media, such as newsletters, letterbox drops, community meetings, paid advertisements and mass media.
7. The recovery system needs to take the initiative with community consultation and representation for affected groups.

Strategy 5: Bridge Cleavage Planes.
Since the destructive consequence of cleavages is to sever bonds, information about what people have in common, in spite of their differences can "suture" the split by providing a new basis for communication. Strategies to bridge cleavages include:
1. Provide facts to actively manage rumours and myths.
2. Crucial information must be repeated throughout the recovery period since people differ as to when they are able to absorb it and when it is relevant to them.
3. Provide overview information about events and actions so the context is evident, especially for decisions and policies.
4. Encourage inter-group communication and exchange; provide anecdotes that disrupt simplistic assumptions about effects and assist the developing structures to integrate around the recovery requirements.
5. Facilitate symbols and rituals to promote an embracing community identity.
6. Contrast backward and forward looking issues and place these all in the context of recovery.
7. Promote concepts of a new inclusive future for the community.
8. Meet practical needs and provide care as the medium for communicating inclusion and respect.

Strategy 6: Medium Term Personal Support.
Interventions directed towards mobilizing social support and community cohesion benefit the psychological functioning of those involved.
1. Educating community members about the normality of their responses creates collective attitudes that avoid isolation and stigmatisation.
2. Over reliance on individualistic medical models of helping and neglecting personal and social resources available in the community tend to undermine the autonomy of affected people. Formal crisis counselling services often only begin to be used a month or more after the event as stress accumulates.

3. Earlier interventions by mental health workers aimed at supporting, educating and consulting to the community form an effective base for planning and preparing more intensive formal services later (Drabek, 1986).
4. Meeting practical needs and providing care for community members needs to complement specialist mental health services, since competing demands prevent people addressing their psychological problems.
5. Practical support services can be integrated with the other services and supported by mental health consultation to make referrals for psychological assistance of the people they encounter who need it.
6. Re-establishment of recreational and leisure opportunities to discourage the formation of a stress-focussed lifestyle.

Strategy 7: Promote Constructive Differentiation.
Recovery from disaster means the formation of a new community social system that preserves continuity with the past, but recognises it will never be the same. A new self-determined community needs to be promoted, and a new community fabric developed with a new communicational infrastructure to promote new patterns of social bonds. The disaster is a catalyst to review pre-disaster functioning. Circulation of information promotes communication, communication promotes the formation of social bonds, social bonds promote the formation of groups and support structures, groups promote common action and common action creates constructive differentiation. Some strategies to assist this are:
1. Facilitate new, self determined community structures and advocacy groups.
2. Work through community structures where possible, including forming community reference and advisory groups in conjunction with recovery managers.
3. Encourage self-management with resources to support people to make their own decisions. Assisting people's self-management and support enables them to participate in developing an effective new community.
4. Assist community communication in all its forms as the precondition to co-ordination.
5. Establish disaster-specific communication media to complement existing channels.
6. Spontaneous symbols and rituals of community recovery can be supported. Those created by the community re-build morale and identity.
7. Establish integrated social systems around the developing tasks of recovery.
8. The debate about re-development can contrast backward and forward looking issues on the basis that the only effective long term recovery is promotion of a new future rather than re-establishing a lost past.

Strategy 8: Long Term Personal Support.
In the years following disaster, there is a continuing, though reducing need for support.
1. Easily accessible personal support services need to be maintained into the long term to assist people who develop chronic stress responses.
2. Counselling services are often in demand in the long term, but need to be non-stigmatising and preferably based in familiar community agencies.
3. Some people are not ready to utilise their entitlements until the second or third years after the disaster.
4. These services can be gradually handed back to normal community providers and integrated into enhanced services for the community.

Life After Recovery

Disaster accelerates the community process already operating rather than completely changing its direction. Most communities eventually return to normal and show little adverse effects (Haas, Kates and Bowden, 1977). However, where damage from large-scale disasters is extensive, communities and their members may be seriously damaged in the long term, suffering economic, social and cultural deterioration without intensive governmental intervention (Mileti, 1999).

It is not just individuals who are affected, but also the community and social structures that provide the framework to manage the dynamic social process that disasters initiate. The model describes this in a schematic manner, although it may not be followed in any specific case. However, if a significant threat is associated with the impact, some form of debonding will occur. If there is debonding, then some sort of fusion will be the consequence in the aftermath. At this point, the formal services can engage with these social processes if they understand and anticipate them. No sooner has the fusion consolidated and stabilised the situation, than tensions emerge and cleavages form unless recovery services anticipate them and use strategies to intercept and bridge them. Constructive community differentiation builds on a community development orientation to review old and develop new community systems from the opportunity created by the disaster.

Disruption of the Life Continuum in Emergencies.

Disaster, like all traumatic experiences can have many effects on individuals and families. Some show themselves immediately, others appear months or even years later. Those easiest to recognise are direct and bear the imprint of the trauma. However indirect effects also occur involving the trauma interacting with other issues in the individual's past, present or future life. Short term effects are likely to be clearly identifiable as stress effects, while longer term responses may appear as personal problems. However, disaster responses are often normal responses to abnormal experiences and are misunderstood and mistreated if not recognised as such.

One of the most obvious effects of stress, trauma and crisis is the disruption of the continuity of life experience. The consequence of such a disruption is far reaching and shows the presence of a connected, integrated series of experiences is normally taken for granted. The presence of an intact social environment is an essential component for preserving the continuity of life experience. Disruptions of the life continuum need to be understood if the importance of preserving the social context is to be recognised. Many problems that follow disaster are directly related to this loss of the "life continuum." The following model describes the social and personal structures in emergencies and traumatic events.

The life continuum can be understood as maintained at each moment by the person understanding the past, anticipating and planning for the future, and making big and small decisions that link past and future together in the present. However, living life actively does not happen in a vacuum. A person outside the structures of family and community relationships finds it harder to think, evaluate or plan. Disorientation and confusion are common outside one's

accustomed social environment. Normal personal and social support networks are a series of relationships, attitudes and experiences that can be called on as required.

In Figure 10, "Existence" forms the base of assumptions and structures that support the person's existence. These include the beliefs, values and assumptions about the nature of life, humanity, the world in general. The line running from A on the left to B on the right, indicates the stream of life experience. It flows out of the past (A) where it is the memories of past events and history, into the present (C) and on into the future (B) where it is goals and plans. At C, in the present, it is essential to human life that the past and present are brought together so they can be linked through the processes of thought and decision-making. The two lines are not directly joined, they twine around each other and are linked within the personality by a third line, shown in the centre of the diagram, representing conscious planning, evaluating, deciding, acting and taking responsibility for life as an active agent. Integration is shown occurring within a protective space formed by a series of psychosocial structures, or "membranes" which create the opportunity for life experiences to be woven into a continuum. It can be called the integrative space.
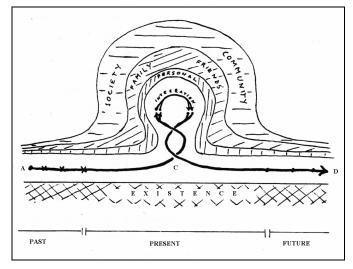

Figure 10. The life continuum maintained by personal, family and social-cultural structures.

The membrane-structure forming the integrative space consists of three layers. The innermost layer consists of all the personal capacities and factors that combine to enable the person to function as an individual. Beyond and supporting the personal, is the family and friends membrane. This refers to the close, supportive social network of those people with whom the person associates in regular, face to face relationships. They support personal functioning and enable the person to gain advice, guidance and emotional support in the course of their integrative functions.

Beyond the family and friends membrane, is the third, which incorporates the diffuse relationships, assumptions and common content of the society, culture or organisational structure that contains the personal network. This is not normally recognised, since it is constant, although it is evident when people move to other cultures or immigrate to a new country. It is also evident in the difficulties when joining a new, complex organisation or in the disorganisation and inefficiency of re-structuring. Together these three membranes support each other in creating the

space enabling integration to occur. These dimensions of the social network act as a protective psychological shell, safeguarding a sensitive and essential process. Past traumas are marked on the line of the past, while short and longer term goals are shown on the line of the future.

Figure 11 shows the effect of a traumatic event on the life continuum, erupting out of Existence, rupturing the assumptions and beliefs constituting the basis of experience. The intensity and power of the trauma disconnects the past and future, breaking the continuum. It imparts such intensity to the various elements of life experience that they can no longer be contained or given meaning by the structure of membranes. In the personal membrane, this is shown by the fact that the trauma defies previous understandings and cannot be accepted. Consequently, the energised elements of experience pass through the membrane and fail to be integrated. Past and future remain disconnected.
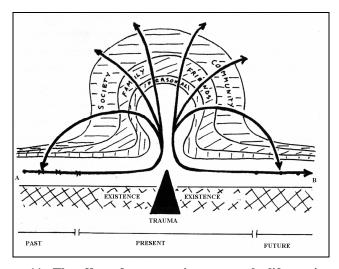

Figure 11. The effect of a traumatic event on the life continuum.

Instead of the lines of past and future being brought together within the protective framework of the family and community sheath, they become uncoupled. The affected individual feels unable to relate to the future or leave the past behind. This is shown by the line of the past turning back on itself. People become preoccupied or fixated on their past traumas when the disaster is before them. Sometimes they are unable to focus on the present. The line of the future also turns away into the future creating anxiety about short term goals and despair about the long term as the sense of disruption to life's plan sinks in. This is expressed as despondency and lack of motivation.

When the traumatised elements enter the second family/friends membrane, they are misunderstood and not accepted by those nearest, who often react in ways consistent with their own past experience, but fail to recognise this is no longer appropriate to the trauma in the person they wish to support. It can also cause the members of the support network to retreat from their own pain and fear, isolating the victim. The affected person feels their experience no longer has a place in the network that has been part of integration before, so the disruption continues and the life experience passes through these too.

When it comes to the social membrane, the wider social setting often fails to react to the trauma in a sensitive way. This ranges from inappropriate media exposure, to tactless comments by well-meaning acquaintances or misguided management by those in positions of responsibility. The affected person feels alienated from the wider society, and it fails to compensate for the inadequacies of the family and friends. An extreme example of this was the failure of the Australian community to recognise the returning Viet Nam veterans, which was not rectified until their return march was done in recent years. It is also shown by the impact of inadequate management on people affected by trauma, who often feel as preoccupied and distressed by this as by the event itself.

Disasters attack the individual's experience and their social networks, disrupting their operation and abolishing the order and routine they provide. Because members of these networks are simultaneously preoccupied with the same issues, they are effectively unavailable to the individual. Therefore, the effect of the disaster is shown impacting simultaneously on the continuity of life of the individual by disrupting planning and decision making, and on the sheaths that support the process.

The destructive effects of the disaster impact on all levels at the same time. Involvement in a disaster is not the same as a lot of people undergoing a traumatic experience at the same time. The support systems essential for proper recovery are also disrupted, and further disruptions occur as the process unfolds. Many post-disaster problems can be put down to the problems of the recovery period rather than the disaster itself.
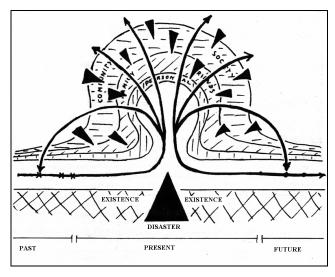

Figure 12. The effect of general community disaster on the life continuum.

In Figure 12, the effect of a general community disaster is shown. In this case, many other members of the social support system are likely to be in traumatic disruption as well. But since the family/friendship and social/community membranes consist of relationships with people, their fabric is severely disrupted since their members having their own difficulties are unavailable to the affected person. The most important resource for recovery is ineffective or unavailable, and there are many points of friction or aggravation within the membranes. It is

important to approach recovery both from the community and the personal perspectives to ensure that what is done for individuals is supported by the social network.

The prototype of the recovery system is shown in Figure 13. The lines of past and future are shown curving back and retracing the path from past and future then returning to the present. The retracing is contained in the enhanced sheath of community support. The person is ready once again to reintegrate in the present. This represents the recovery phase and the series is completed by a return to Figure 10.
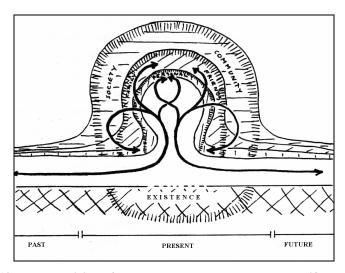

Figure 13. The provision of support structures to restore the life continuum.

This model shows that there is no separation between the personal functioning and the surrounding social system of the affected person. They constitute parts of a single system, which needs to be understood as the background for recognising the essential role of management and personal support in recovery from emergencies. There are denser skins in the three membranes that receive and hold the intensified experiential elements and return them towards the integrative space by holding and giving them meaning. In the personal membrane, the skin consists of such things as knowledge, preparation and training, information about stress and advice about undertaking recovery. In the family/friendship network it consists of people with information about what has happened, who know how to support their colleague or friend. In the society/community/organisation membrane it consists of effective management procedures, general support and the presence of support services that deals with the event as part of their own routine operations.

Recovery works to re-establish the sheath of social networks supporting the integrative process linking past and future. Community and family relationships need to embrace the recovery issues and include reviewing the past in the light of the disaster, assisting people to come to terms with a new future, and giving ample opportunities to exercise planning, decision making and initiative in the recovery process.

Coming to terms with trauma and disaster as outlined here is a normal process which everyone goes through to a greater or lesser degree. For some it may be comparatively painless, for others

it may be slow and difficult. For some the community input may be limited because they have a well-developed internal network based on their own past experience. Others may need the involvement of others in their family and community in order to feel supported to work through the situation. However, the principles are the same whether someone retraces their past and re-evaluates their future goals in the privacy of their own mind, with neighbours, in community forums, or in counselling.

This model shows that there is no separation between the personal functioning and the surrounding social system of the affected person. They constitute parts of a single system, which needs to be understood as the background for recognising the essential role of management and personal support in recovery from emergencies. Community interventions can do much to create understanding and opportunities for working through the trauma. The more the community is assisted to maintain its integrity and avoid destructive splits and conflicts, the more it supports the recovery of its members. Therefore community recovery is at the same time the framework for personal recovery.

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