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DISASTROUS ASSUMPTIONS ABOUT
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That there is a discrepancy between disaster planning efforts and the actual response experience seems rather universal. That discrepancy is symbolized by the graffiti which predictably surfaces on many walls in post disaster locations-- "First the earthquake, then the disaster." That contradiction is seldom reduced as a result of post disaster critiques, since the most usual conclusion is that the plan was adequate but the "people" did not follow it. Another explanation will be provided here. A more plausible explanation for failure is that most planning efforts adopt a number of erroneous assumptions which affect the outcome. Those assumptions are infrequently changed or modified by experience.

The Focus

While planning efforts can be undertaken for a variety of social units, the focus here is on planning for a local community response. The local community, as a collectivity, has greater resources to respond to social disruption than do

individuals, groups or organizations. Too, the local community is likely to become involved in disaster response prior to involvement of social units in the larger society or in other instances, from the international system. The success or failure of planning effort is more likely to be revealed at the local community level. Too, the local community is a generic form of social organization in every society since it has a territorial base and is organized to solve problems for its population.

The empirical base for the subsequent comments come from an examining of planning efforts and comparing those documents with the now extensive literature on social and organizational reactions in emergency response.¹ There is no suggestion that there is standardization among the various plans, although a common form of planning effort is to copy almost verbatim plans of some other jurisdiction.

The goal of emergency planning is to anticipate courses of action based on projected problems and possible solutions. While the nature of planning should be understood as a social process, for most communities, planning is viewed as the production of a ponderous and detailed document, often prepared by experts, by definition with little knowledge of the community, or by locals, whose primary interest is in creating a product that makes any disaster most convenient for their organization.

One way to evaluate such documents is to infer the various models which guide persons involved in such planning efforts. These models can be inferred by examining the emphasis given to particular tasks. Such emphasis can be determined by the amount of space given to particular themes as well as the lack of attention given to other themes. There is no implication here that one particular model should or will dominate a single planning document. In fact, several models are likely to be combined, often inconsistently, in a single document. The intent here is to analytically separate models which assume certain causes and consequences about disaster and the processes of developing a response. Six models are identified here: the agent facts model, the big accident model, the end of the world model, the media model, the command and control model and the administrative model. They will be briefly identified and evaluated.

1. The agent facts model. Many disaster plans are compendiums of information about potential disaster agents. Much information is not only found within the text but most frequently in the extensive appendices constituting the bulk of the planning document. For example, in many earthquake prone areas, significant portions of planning documents contain lengthy summaries of existing knowledge about plate tectonics, Richter and Mercalli scales, etc. While such information can be important in other educational contexts, there is the implicit

assumption that such knowledge is critical in predicting the nature of emergency problems. The tenuous relationship between physical and social damage can be illustrated by the 1988 earthquake in Armenia. The earthquake, 6.9 on the Richter scale, killed approximately 25,000, injured more than 31,000 and left 514,000 homeless. The next year, an earthquake of greater magnitude (7.1), the Loma Prieta earthquake killed 62, injured 3,757 and left more than 12,000. While information about the social implications of certain agent characteristics, such as speed of onset, warning time, distributional patterns of impact and potential injury patterns can be important, much more relevant is assessing the task ahead in an emergency would be information about population distribution, building and housing patterns and resource availability. The point to be emphasized here is the very low correlation between agent characteristics and consequent social damage, so such attention to physical facts leads to a distorted focus.

2. The big accident model. A second model, frequently advocated when organizations such as the police become the core planning group, is to orient the plan as an enlargement of traditional traffic accidents. Organizations with day to day responsibility for accidents assume the model to be followed is a situation where more victims than usual will be created on site but where there is minimal disruption of the larger social system and little disruption of the societal infrastructure. Using that model, such planning entities assume that their

respective organizations will continue to play a dominant role within their traditional domains. The accident model precludes the necessity of altering organizational boundaries to allow a more coherent and integrated emergency response. Most disaster impacts, however, do not reproduce accident effects. Instead, there is usually a diffuse rather than a focalized impact and there is usually disruption of the larger social system and its infrastructure. Consequently, disaster planning, in contrast with accident planning, must transcend the traditional domains involved in routine accidents and develop a more comprehensive interorganizational response.

3. The end of the world model. To a certain extent, this is a precursor to and an extension of the big accident, associated with nuclear war or nuclear power plants. It assumes massive destruction producing casualty rates in excess of the resident population and incapacitates almost all emergency personnel. For some, the model leads to a conclusion that any emergency planning is impossible. To others, there is an effort to save some remnant for a fresh start. Planning efforts usually focused on dealing with mass casualties, moving people out of harm's way by evacuation and/or by crisis relocation, teaching individuals survival skills and providing selected officials with bunkers. The emphasis is on assuring the continuity of government which then would re-establish social life. This process, of course, could only be effective by command and control.

6

4. The media model. This model is a complex one and probably subsumes several subtypes, such as the Titanic model, the Raging Inferno model, etc. The continuity among the various subtypes, however, is the assumption that disasters are characterized by drastic and traumatic changes in the behavior of "victims." Consequently, people cannot be trusted to behave rationally, except, of course, a few heroic individuals who are also likely to be involved in the planning activity. The model suggests that civil society is very fragile and that disaster events are likely to tip the scales in hasten the decent into irrational, deviant and unlawful behavior. Most people, then, cannot be trusted to assume emergency responsibility.

Given that model, details of appropriate emergency behavior need to be detailed in planning. Too, considerable attention needs to be devoted to issues of security and to the mobilization of emergency workers. The motivation of such workers is seen as problematic since many people will be rendered impassive or seek to avoid responsibility. In general, the media model is individualistic and anti-bureaucratic. Its scripts point to episodes of individual victimization punctuated with celebrations of heroic behavior, overcoming odds and bureaucratic sloth. The media model leads to a slighting of organizational preparedness in the expectation that the most effective response will come from "strong" people. It easily fits with the next model--command and control.

5. The command and control model. This model, of course, historically has had a significant impact on emergency planning because it can be easily combined with other models. It incorporates the assumption that the emergency are quite different than usual social behavior evidenced during "normal" times. It assumes consistent with the media model that the emergency period is characterized by social chaos and is marked by rather irrational social behavior. This is prompted by the loss or ineffectiveness of traditional social control agencies. Since emergencies produce weakness in individuals and social structure, the goals of emergency planning is to establish command over that chaos and regain "control" of the disorganization of individuals.

This model has a number of implications. First, that ordinary (civilian) institutions generally are incapable of functioning effectively and that families and voluntary organizations are, in large part, irrelevant for emergency action. This means that outside help is likely to be needed and/or that paramilitary organizations, which can quickly assume command and control are the effective in emergency situations. Too, since civilian institutions are weak and break down, the most critical task to be solved by emergency planning is re-establishing "command." So, in many planning documents, a great deal of effort is given to specifying emergency "authority." Since authority in the pre-emergency community is multi-dimensional, the effort to make it unidimensional in

emergencies can create community conflict. The usual resolution is for organizations directly involved in the planning process to cede themselves greater authority than other organizations are likely to accord them. However, those claims are usually ignored in an actual emergency. The goal of unidimensional authority is closely related to a notion that decision-making should be centralized, because heroic individuals are likely to be found in small groups at the top. Given that assumption, the desired form of emergency communication is down the authority structure. Such messages are intended to be official instructions to an uninformed and passive population. There is also the notion that "spontaneous behavior," behavior not covered in the plan, is misplaced, misdirected and harmful. In general, then, the command and control model is predicated on the assumption that pre-emergency social structure is weak and ineffective so that details about lines of authority and communication need to be spelled out. There is a distrust of spontaneous action which is seen to undercut planning. The command and control model is still normative for much current planning efforts, in large part because community emergency planning historically emerged from a parallelism with war and, from the fact that many civilian communities assumed that those with military experience had relevant skills to plan for civilian populations.

6. The administrative model. This designation points to the recent emergency of a softer and gentler version of the command and control model. It is eclectic but not necessarily coherent. It draws on organizational theory especially as that theory is understood in public administration. It draws on concepts and ideas relating to information theory to create data and information important to decision-making within emergency organizations. This model does not make a sharp distinction between pre-emergency and emergency behavior. It sees emergency planning as a necessary function of local government, in the same fashion as garbage collection or snow removal. It seeks to utilize modern administrative techniques and advanced technology to facilitate an efficient response.

While the administrative model avoids some of the questionable assumptions in the models, it also has its own blind spots. While it values coordination, its assumptions about the "centralization" of information usually suggests a sanitized version of the centralization of authority. With its concern for efficient organizational functioning, it often becomes paternalistic in tone and action. It also downplays organizational transformation during the emergency period and assumes a simple continuity of organizational action. Because of its emphasis of the generation of information and data, it implicitly accepts a top down communication model. Its organizational assumptions blind the model to the

importance of emergent behavior in the response. The emphasis on the generation of information often is uncritical. Data generated by computer programs create the illusion that "real" variables are being manipulated by a key stroke and that those before the screen therefore command the situation and cumulative data does not establish priorities any better than cumulated ignorance. Many of the elements in the administrative model are based on techniques assumed to increase the efficiency of disaster response. However, efficiency may not be the most important criteria for evaluation. A critical argument can be made that an effective response is the most important goal; and, in many cases, maximizing efficiency reduces effectiveness.

Conclusion and Discussion

Emergency planning, historically and currently, has often been hampered by a number of "disastrous" assumptions. Some of the assumptions derived from the emotional content attached to the term disaster. Some of these assumptions are based in mythologies about how people respond to disasters and other mythologies question the capacity of social structures to mobilize an effective response. In general, emergency planners have a rather low opinion of the capacity of individuals and social units to cope. Consequently, much of emergency planning treats individuals and social units as problems rather than resources.

11

Consequently, most assumptions about emergency response focus on the putative need to "strengthen" existing structure, either through the substitution of a more appropriate way to command and control or by suggesting that only through the massive injection of technological aids can community life be salvaged. Most of the models have emphasized discontinuity rather than continuity giving high value to the new and unfamiliar. Most of the models have sought to enhance dominance, rather than to insure coordination. Most of the models have sought to impose rigidity, rather than to enhance creativity. Most of the models have sought to impose artificiality, rather than to continue usualness. These assumptions make emergency planning part of the problem rather than the beginnings of the solution.

A much more adequate model for emergency planning is to recognize that the major tasks in the emergency are problem-solving ones. Existing social units within the community already have had a history of successful problem-solving. Thus the situation calls for decentralized and pluralistic decision-making rather than the centralization of authority and decision-making. A premium should be placed on the flexibility and initiative among various social units and their coordination. The goal of emergency planning should mobilize the problem-solving skills within the community in the most effective way to meet the tasks created by disaster events.

REFERENCES

- 1 Since the source of the models are of my own construction, bibliographic references are not relevant. For an extension of many of the ideas expressed here, see Russell R. Dynes, E. L. Quarantelli and Gary Kreps, A Perspective on Disaster Planning, Newark, DE, Disaster Research Center, 1981, 3rd edition; Russell R. Dynes, "Guidelines for Emergency Management in Fixed Site Installations," Disaster Prevention and Management, 1993, Vol. 2, No. 4, pp. 6-16; and Russell R. Dynes, "Community Emergency Planning: False Assumptions and Inappropriate Analogies," International Journal of Mass Emergencies and Disasters, August 1994, Vol. 12, No. 2, pp. 141-158.