# DISASTER SCIENCE AND MANAGEMENT: HOMELAND SECURITY AND ORGANIZATIONAL CULTURE IN RESPONSE TO HURRICANE KATRINA

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## **Abstract**

This study examines organizational cultures to understand differences in organizational performance when responding to the same crisis situations. In considering organizational culture, we apply the grid-group typology, first proposed by social anthropologist Mary Douglas and later developed for application to political cultures by Michael Thompson, Richard Ellis, and Aaron Wildavsky. An organization's dominant cultural bias characterizes particular ways rules structure internal and external interactions ("grid" dimension) as well as influence internal and external group ties ("group" dimension). Using this approach to organizational cultures enables examination of matters beyond structure and mission to understand (1) consequences, and (2) justifications of organizational responses to emergencies.

#### 1. Introduction

Approaches to organizational culture differ in classifications schemes, but generally focus on formal rules and regulations, informal customs, and behavioral expectations that characterize social interactions within and between organizations. Most researchers ask about effects that culture has on power differentials in hierarchical structures, and how markets and economic risk influence individualistic decision-making and organizational effectiveness. Some approaches to organizational culture include roles of "collectivism" or "altruism" as attitudes that shape other aspects of organizational culture neglected through excessive focus on hierarchy and individualism. Yet most proposed classification typologies for organizational cultures develop these "collectivist" cultural forces as little more than influential attitudes (Thompson, Ellis, and Wildavsky, 1990).

This research utilizes the grid-group typology, first proposed by anthropologist Mary Douglas (and later developed for application in political cultures by Michael Thompson, Richard Ellis, and Aaron Wildavsky), to describe organizations' dominant "cultural bias" when managing crises arising from Hurricane Katrina in the New Orleans area. Interactions between and within the organizational cultures of the Coast Guard, FEMA, the White House, and on-the-scene emergent groups are examined.

Use of the grid-group typology holds at least three advantages over other organizational culture classification schemes. First, it not only accounts for so-called collectivist cultures ("egalitarianism"), but also accounts for "fatalistic" cultures. Both these cultural types are usually relegated to the realm of individual attitude. Thus, the grid-group typology adds fatalism and egalitarianism to the usual organizational culture classifications of individualism and hierarchy.

Secondly, while augmenting traditional classifications, a grid-group approach also supports findings of research using other typologies. For example, Edward Schein (2004) separated three cognitive levels of organizational culture into organizational attributes

identifiable by even an uninitiated observer or outsider, those attributes to which insiders are privy, and a third "deepest" level including underlying tacit cultural norms that not generally visible until crisis or change sets in. The grid-group typology considers all three levels, by identifying tacit assumptions and expectations and describing how they shape the more obvious ones. Charles Handy (1985) proposed a four-fold organizational culture typology (power cultures, role cultures, task cultures, and person cultures), as did Deal and Kennedy's (1982) typology using feedback and risk (tough guy/macho culture, work hard/play hard culture, bet-your-company culture, process culture).

The grid-group typology neglects nothing posed by these other organizational culture typologies, while augmenting their explanatory power and categorical consistency. This third advantage offered by the grid-group typology means that categories of organizational culture are based on mutually exclusive, jointly exhaustive, and consistent criteria. Other typologies use criteria that are inconsistent between cultural types, such as using gendered criteria for one cultural type (masculine/feminine) and time (short term/long term) for another (Hofstede, 1980). An organization's dominant "cultural bias" (individualist, hierarchist, egalitarian, or fatalist) characterizes particular ways rules structure internal and external interactions ("grid" dimension) as well as influence internal and external group ties ("group" dimension).

## 2. Objective

The objective of this study was to assess the explanatory power of cultural theory for the purpose of characterizing organizational disaster responses, and also to improve the understanding of patterns in organizational blame, crisis management, and crisis response during disasters.

# 3. Analyses

Teleconference transcripts of dialogue among responding federal, state, and local organizations between August 28 and September 4, 2005, together with transcripts of Congressional testimony, government response assessment documents, and source-verified newspaper articles constitute materials under consideration in this paper. The teleconference transcripts form the base material from which patterns in organizational blame, management strategies, and crisis responses were used to ascertain grid and group characteristics exhibited during the response by represented organizations. Justifications for response preferences, given by these same organizational leaders and representatives, were then examined through Congressional testimony, government performance reviews, and newspaper interviews. Organizational preferences and justifications for those preferences were used to identify and evaluate performance rationales according to cultural biases dominating FEMA, the White House, the Coast Guard, and emergent groups on-the-scene in the New Orleans area.

A scheme was developed for coding teleconference transcripts by combining Hood's (1998) characterization of each cultural bias' response to crisis, and Thompson, Ellis, and Wildavsky's (1990) definitions of each bias' patterns of placing blame. Table 1 summarizes this scheme. The coding required listing each participant in each teleconference and their respective organizational affiliation, then classifying and tabulating quotes and quote summaries from each of them, according to blame, management emphasis, and crisis response described in Table 1. Each quote was characterized in terms of grid (high or low), group (high or low), and/or cultural bias (both grid and group). Emergent groups did not participate in the teleconferences, however, conversations regarding un-utilized volunteers and "security concerns" is traced from these initial reports to later confirmation of their activities though source-verified newspaper reports

and government documents. Emergent groups considered for this initial study include groups of rescuers and groups of looters.

<u>Table 1</u>. Identifying patterns of organizational blame, crisis management emphasis, and crisis response. "Typical credo" is a stereotypical example quote to characterize each bias' exhibited preference for rationalizing organizational decisions and actions.

## **Fatalist**

**Blame** (Fb): the fickle finger of fate (Hood); world does things to us (Thompson, Ellis, Wildavsky)

Management Emphasis (Fme): Manage neither needs or resources - Needs and resources are defined by someone else, so copes over that which it has no control; Summarized by phrase: "If your number comes up..." (Thompson, Ellis, Wildavsky)

Crisis Response (Fcr) (Hood's "Remedy"): minimal anticipation, at most ad hoc response after the event

Typical Credo (Ftc): "I'm not even

**Typical Credo** (Ftc): "I'm not even supposed to be here today."

# Hierarchist

Blame (Hb): poor compliance with established procedures, lack of professional expertise (Hood); cannot blame collective, blame shifted to deviants who don't know their place (Thompson, Ellis, Wildavsky)

Management Emphasis (Hme): Manage resources but not needs — differential maintenance of resources according to hierarchically patterned levels of needs; Summarized by the phrase: "The Ordnance giveth and the Ordnance taketh away." (Thompson, Ellis, Wildavsky)

Crisis Response (Hcr) (Hood's "Remedy"): more expertise, tighter procedures, greater managerial 'grip'

*Typical Credo (Htc)*: "All for one and one for all."

## Individualist

Blame (Ib): faulty incentive structures through over-collectivization and lack of price signals (Hood); competitive system remains blameless, attribute personal failure to bad luck and/or personal incompetence (Thompson, Ellis, Wildavsky)

Management Emphasis (Ime): Manage both needs and resources – competitive individualism to manage both upward to the limit of entrepreneurial skill; Summarized by phrase: "Survival of the fittest." (Thompson, Ellis, Wildavsky)

*Crisis Response* (*Icr*)(Hood's "Remedy"): market-like mechanisms, competitions and leagues, information to support choice (e.g., rating systems)

*Typical Credo (Itc)*: "Every man for himself."

#### **Egalitarian**

**Blame** (**Eb**): abuse of power by top-level government/corporate leaders, system corruption (Hood); blame the collective/the system, solidarity by portraying external symbols as monstrous and look for contamination by secret enemies within (Thompson, Ellis, Wildavsky)

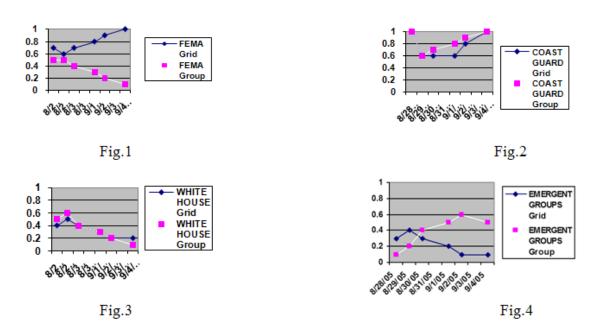
Management Emphasis (Eme): Manage needs but not resources - resources as fixed raw materials that requires decreasing needs to equitably share resources; Summarized by phrase: "Nature is a zero-sum (or even negative sum) game." (Thompson, Ellis, Wildavsky)

*Crisis Response (Ecr)* (Hood's "Remedy"): participation, communitarianism, whistle-blowing

*Typical Credo (Etc)*: "A world in ourselves and in each other."

#### 4. Discussion

While fluctuations in biases continued throughout the response for each organization, overall cultural biases held throughout the disaster response and held relatively consistent patterns of apportioning blame and preferred management strategies. Qualitatively, dominant cultural biases exhibited by each organization stood out in clear trends of grid and group, and quantitative analyses suggest the same (see Dowty et al. 2011 and Beech et al. 2009). These trends toward stereotypical patterns of blame, management preferences, and responses to crisis support the notion that organizational cultures tighten and narrow when responding to disaster.



## **Conclusions**

By coding teleconference transcripts of federal, state, and local organizations, Senate hearing testimony transcripts, government response assessment documents we have been able to characterize the respective disaster management policies of both pre-planned and ad hoc organizations in terms of grid and group. Resolution strategies classified the actions of FEMA as corresponding to a fatalist cultural bias, while those of the White House administration correlated with the individualist cultural bias. Ad hoc, emergent groups were determined to be egalitarian after coding. The Coast Guard was determined to be acting within the hierarchist cultural bias, which follows intuitively given the resilience of such organizations during disaster management and response. We again wish to point out that these characterizations are of utility only in describing the dominant cultural bias; the very nature of disaster response is a highly fluid, multifaceted series of coordinated interaction and response. The purpose of our coding and analysis has been to demonstrate the causal character of a dominant cultural bias in forming organizational response as a whole to disaster. The fact that a dominant bias is not ubiquitous to every member of an organization indicates the fluidity with which an organization responds, in some cases crystallizing an organization in one cultural bias, or changing bias altogether in other situations.

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