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**Natural Disasters and the Politics of Causality:
Explanation and Responsibility in the Context of Multiple Catastrophes**

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Abstract

Natural disasters invite a search for meaning as people seek to understand the reasons for their or others' misfortune. Increasingly natural disasters also trigger controversy as responsibility and blame are assigned for failures that have led to death and destruction. This paper reports on an examination of three spheres of activity—religion, science, and politics—in the aftermath of a series of recent mega-disasters. We are interested in whether or not people perceived a connection among catastrophes—a “disaster cluster,” in epidemiological language—and, if they did, how they sought to explain it. Our principal research tools are four ideal-typical causal models: multiple disasters as acts of God; as acts of nature; as products of human agency; and as merely chance or coincidence. We are especially interested in which, if any, of these explanations became part of a public discourse about multiple disasters, in how they were used and by whom either to explain these events or to affix blame, and in how such explanations were refuted or responsibility deflected.

Natural Disasters and the Politics of Causality:

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During the twelve-month period from late December 2004 through the end of 2005, a mega-disaster somewhere in the world was receiving extensive news coverage here in the U.S. Even apart from these headline-grabbing events, disasters seemed to be everywhere. A compilation on the Web site infoplease.com (2006), for example, lists 132 disastrous events worldwide between August 1, 2004, and December 31, 2005, twenty-seven percent of which require three or more lines (in 8-point font) to describe, meaning that widespread damage and significant loss of life were involved. One did not have to be struck by a falling acorn to be persuaded that the sky indeed was falling. We suspected that those who believe the Apocalypse is near would see a meaningful connection among these events. This led us to wonder whether other types of people saw different types of links among catastrophes. In this paper we look beyond interpretations of single events such as Hurricane Katrina in search of people's explanations for the multiple disasters of 2004–2005.

Our questions here are twofold: first, who if anyone drew a connection between two or more of these catastrophic events?; more importantly, what explanation did they offer for such a connection? Two caveats are in order at the outset. We are interested in explanations, in particular causal explanations, for *multiple* events, not for a single disaster no matter how catastrophic or unusual. Second, we do not assume that people *should* have seen a connection among any of these events or that any such connection actually exists (i.e., is objectively real). In the language of introductory sociology, it is the perception of reality that we are interested in, by whom, for what purpose, and with what apparent consequences.

Our primary research tools are four ideal-type causal models: multiple disasters as acts of God, as acts of nature, as products of human agency, and as merely chance or coincidence (i.e., “stuff happens”). In searching for instances of each explanation primarily in the aftermath of Hurricane Katrina, we concentrated on actors involved in three institutional sectors: religion, science, and politics. Precise boundaries among these are hard to establish in practice since there is considerable overlap among them in public discourse. This is especially true of political discourse wherein religion and science play such a large part, both in claims-making and in the repudiation of claims. Nevertheless, we have organized our paper into three main sections on multiple disasters in religion, science, and politics, respectively.

Multiple Disasters and Religion

Religious explanations for the numerous disasters attracting worldwide attention during 2004–2005, quite naturally, were dominated by the acts-of-God theme. However, two things were unexpected in this realm: one was the variety of religious interpretations of multiple disasters; the other was the extent to which both chance and human agency were part of this discourse.

From the beginning of recorded history, people have believed that something as huge as a volcano, as powerful as an earthquake, or as fearsome as a hurricane could only have been caused by the direct actions of the gods. Ancient religions, including the Hebrew Scriptures and the Koran, paint a picture of a vengeful God raining down His wrath in immediate and powerful ways to control His wayward children. For instance, Yusuf Abu Sneina, Imam of Al-Aqsa Mosque, commenting on Hurricane Katrina’s destruction on Palestinian Authority Radio,

preached: "... and then Katrina happened, and the American president stood dazzled, beaten, defeated, stunned . . . and the question we are presenting here is, was the USA able to stop Allah's power, and limit his will?" (Marcus and Cook 2005). Modern Christian thought portrays God as a more benevolent figure, more fatherly than vengeful. This poses a central question for contemporary Christianity: "If God is good and God is in charge, then why does He allow such horrible things as great disasters to happen?" In the fall of 2005, religious figures were offering three different answers to this question: disasters are a response to sin; disasters are signs of the coming End Times; and the causes of disasters are unknown, but they represent opportunities for ministry and evangelism.

Disasters as Response to Sin

Soon now I will pour out my wrath upon you;

I will spend my anger against you.

I will judge you according to your ways,

and punish you for all your abominations.

Ezekiel 7:8

The basic premise underlying this interpretation is that God created a delicate balance across all creation that the sins of mankind upset. Disasters are not only retribution for disobedience but also mechanisms for reestablishing equilibrium. In practice, the causal logic of this explanation has a "fill-in-the-blank" quality: anything that the claims-maker opposes can be inserted as the sin that caused God's wrath. For example, Sims (2005) identifies the Southern

Decadence parade as the cause of New Orleans' devastation. She links natural disasters to the general permissiveness in American society, reaching back as far as 9/11 to show that America has been "taking a beating at the hand of God." Sims speaks of a vanishing America that "... once looked to God as its hope for health, wealth happiness and prosperity." She believes that American has "[s]hunned His holy word. America is no longer an apple of God's eye."

Other religious writers point to other sins to explain why God's anger led to a series of hurricanes in 2005. Choate (2005), for example, gives an entire laundry list of such sins: abortion, fornication and adultery, covetousness, liberal judges in the justice system, homosexuality, lies, and animal lovers. He specifically identifies the Southern Decadence parade; the Cattle Festival in Vermilion County, Louisiana; a Mayan Riviera Gay Fiesta in Cancún, Mexico; and Fantasy Fest in Key West, Florida, as "evil events" cancelled or postponed specifically by Hurricanes Katrina, Rita, and Wilma:

Doesn't anyone see the pattern here? It is precisely for wicked things like this that storms and disasters are sent as judgment from God. Also casinos and their wickedness are like a magnet to draw storms to them. America is a morally bankrupt fool's paradise, and disaster after disaster will occur until America repents. Hurricanes Katrina, Rita, and Wilma are God's judgment against this evil world. But this is just the beginning—there is much more to come. (Choate 2005)

In Choate's eyes, this proves that "God rules and reigns over His creation. He brings judgment to nations hoping they will see the error of their ways and repent. When the sin gets grievous with no repentance, then the judgments get progressively worse . . ."

Such rhetoric is used in the same way as it was in the time of Moses, to instill the “fear of God” in the faithful, then to move people to stop one or another specified sin in order to avoid even more destruction. More than a few writers point to the meaning of the name Katrina (i.e., “used by God”) as further proof that these disasters all have been directed by God.

Disasters as Signs of the Coming End Times

*So also, when you see these things taking place,
you know that the kingdom of God is near.*

Luke 21:31

Other religious writers see the string of international disasters as harbingers of the coming End Times. Fundamentalists interpret the Bible as saying that there will be many signs along the way. Reagan (2005) organizes these into six categories: signs of nature, signs of society, signs of spiritual life, signs of world politics, signs of technology, and signs of the state of Israel. Natural disasters fall into the first group: “There will be great earthquakes, and in various places plagues and famines, and there will be terrors and great signs from the heavens” (Luke 21:11). Rather than being objects of fear, multiple disasters signal the return of Jesus and the coming of his Kingdom.

Natural forces are not absent from this religious interpretation, however. After attributing to climate change a string of disasters that includes the Asian tsunami, several U.S. hurricanes, and the National Oceanic and Atmospheric Administration’s forecasts for more unusually warm weather in 2006, Kinsella (2006) posits global warming itself as fulfillment of the biblical

prophecy pointing to the End Times: “Nothing rare about monster storms or killer floods anymore.” While environmentalists blame global warming on human activity, Kinsella insists that scientific research showing that the sun has increased its output, that the earth is reflecting more sunlight back into space than in years prior, and that earthshine has increased since it was discovered by DaVinci all can be interpreted differently. His conclusion is that whatever is coming has begun to arrive, so the faithful should be preparing for the Kingdom.

The approach of the End Times even has been codified into something called the Rapture Index (Strandberg 2006). Describing it as the Dow Jones Industrial Average of End Times activity, its creator rates current events against biblical prophecy in forty-five different categories including economic, political, and spiritual matters as well as natural events such as volcanoes, earthquakes, famine, drought, and floods. At the time of this writing (8 March 2006), the Rapture Index stood at 158. According to Strandberg, an index of 85 or below indicates “slow prophetic activity”; for scores of 145 or more, he says simply: “Fasten your seat belts.”

The difference between these two religious interpretations of multiple disasters is fundamental. Catastrophes as precursors of the End Times are neither God’s angry response to sin nor punishment for mankind’s shortcomings. Rather, the coming of the Kingdom, even with the upheavals it will bring to earth, is anxiously awaited and to be welcomed by the faithful. At the Last Judgments, the righteous will receive their final reward and be reunited with friends, family, and God. To the question of why a benevolent God allows disaster after disaster to happen, the answer is: “To tell us that the Kingdom is nearly at hand.”

Disasters as Opportunities for Ministry and Evangelism

*Truly I tell you, just as you did it to one of the least of these
who are members of my family, you did it to me.*

Matthew 25:40

A third religious interpretation of multiple disasters answers the question of why God allows horrible things to happen with the simplest explanation of all: “We don’t know.” The causes of disasters are part of a giant plan, unknowable by human beings. The salient point is that they represent “teachable moments” (Stallings 1986), that is, opportunities for ministry and evangelism among the victims. The central purpose of calamities is to soften the hearts of the faithful and make them mindful of their blessings *and* their responsibilities. For example, Jerry Falwell (2005) writes:

So what is the biblical significance of all these global disasters that have befallen us recently? The honest answer is: I do not know. . . . I know that hearts are “tenderized” when horrific tragedies occur. We have unprecedented opportunities to share the Gospel with all who are hurting as we simultaneously act to alleviate their physical and emotional pain.

While quite different from the stochastic (chance) models of the natural sciences, this third religious interpretation comes close to what we identify as the chance (or, more informally, the “stuff happens”) explanation. The causes of these disasters may be unknown or unknowable, but what they are—opportunities for proselytizing—is well understood.

Overall, two things stand out about religious explanations for disasters. Both are obvious but deserve stating nonetheless. One is that they tell us more about the speaker than about the events themselves. In the case of disasters as punishment for sin in particular, a causal

connection can be identified to any prior condition, behavior, or idea that the speaker has already determined to be objectionable. Perhaps the most well-known example is the remarks by Jerry Falwell when he was interviewed by Pat Robertson on the latter's "The 700 Club" television program two days after the attacks on the World Trade Center. Falwell invoked a form of "blaming the victims," saying:

And, I know that I'll hear from them [the A.C.L.U.] for this. But, throwing God out successfully with the help of the federal court system, throwing God out of the public square, out of the schools. The abortionists have got to bear some burden for this because God will not be mocked. And when we destroy 40 million little innocent babies, we make God mad. I really believe that the pagans, and the abortionists, and the feminists, and the gays and the lesbians who are actively trying to make that an alternative lifestyle, the ACLU, People For the American Way, all of them who have tried to secularize America. I point the finger in their face and say "you helped this happen." (Falwell 2001)

Although he apologized for this remarks the next day (CNN.com/U.S. 2001), his vision that unacceptable conduct is certain to anger God into bringing on disaster is shared by many of his evangelical colleagues. After the entire board of education in Dover, Pennsylvania, was turned out by voters for attempting to introduce "intelligent design" into the school district's science curriculum, Robertson warned townspeople not to be surprised if disaster struck (Associated Press 2005).

The other readily apparent observation is that these religious interpretations of calamity *predate* the events that they are invoked to explain. They do not emerge *de novo* in their

aftermath. Logically as well as empirically, it could not be otherwise. In the Christian tradition as well as in the older religions of the world, there is “nothing new under the sun” regarding the explanation for catastrophes. More than two and a half centuries ago, for example, John Wesley (1730) was preaching on the subject of earthquakes as products of judgments of a righteous God:

I am to show you that earthquakes are the works of the Lord, and He only bringeth this destruction upon the earth. Now, that God is himself the Author, and sin the moral cause, of earthquakes (whatever the natural cause may be), cannot be denied by any who believe the Scriptures; for these are they which testify of Him, that it is God “which removeth the mountains, and overturneth them in his anger; which shaketh the earth out of her place, and the pillars thereof tremble” (Job 9:5–6).

Multiple Disasters and Science

As expected, discussions of the science of multiple disasters were dominated by the acts-of-nature causal logic with religious interpretations virtually absent. Somewhat surprisingly, human agency was part of the discourse of science as was a variant of the chance model. The dominant theme of the scientific discussion was the relationship between multiple disasters, hurricanes specifically, and climate change, popularly referred to as global warming.

The credibility of the climate change thesis was established in scientific circles decades ago through legitimizing events such as the publication of reports by panels of experts (e.g., National Research Council 1983) and the establishment of official international programs (such as the United Nations’ Intergovernmental Panel on Climate Change; see, for example, Houghton,

Jenkins, and Ephraums 1990). Although a majority of physical scientists now seem to believe that empirical evidence supports the existence of global warming, others insist that the data are far from unequivocal. Big money from big oil companies such as ExxonMobil has helped make the thesis controversial (e.g., Mooney 2005), hence a topic ripe for continual news coverage. So it was perhaps inevitable that global warming would become a major part of the mega-disasters stories in late 2005.

One scientist whose work figured prominently in public discourse about the scientific explanation for multiple disasters was Kerry Emanuel, professor of atmospheric science at MIT. Although Emanuel had published research on the relationship between climate change and hurricanes as early as 1987 (Emanuel 1987), results of a later study on the same relationship (Emanuel 2005b) appeared in *Nature* just four weeks before Katrina made landfall (see also Emanuel 2005a). Environmentalists cited Emanuel's August 2005 report and coupled it with a series of additional extreme meteorological events occurring throughout 2005 to advance the claim that climate change was indeed real, more immediate, and more advanced than naysayers contended (see, for example, Union of Concerned Scientists 2005; Gelbspan 2005).

Scientists were far from unanimous about the causal relationship between climate change and hurricanes, however. Emanuel himself was careful to point out that his data spoke only to hurricane strength but not to hurricane frequency. Other experts such as the head of the Munich Re Foundation (a unit of the giant reinsurance corporation) confidently drew a connection between climate change and the upsurge in hurricanes during the 2005 season, the increasing number of intense hurricanes, and the presence of hurricanes in parts of the world that have never been confronted with them before such as Spain (Milliken 2005). Exemplifying Newton's Second Law of Experts (i.e., equal and opposing experts), Roger Pielke, director of the Center

for Science and Technology Policy Research (University of Colorado), remained unconvinced about the correlation between hurricane intensity and global warming (Greenwire 2005). Emanuel himself pointed out some of the problems in doing research on this topic, including the “paucity of good hurricane measurements before about 1950” (Spotts 2005) and the different patterns that emerge when looking at data over a short versus a long time span (MIT News Office 2005b). Thus the debate about whether variations in hurricane intensity are a function of a linear increase in global temperatures or simply “naturally-occurring cycles in Atlantic [Ocean] sea-surface temperatures” (Spotts 2005) remains unresolved. There are even data showing that hurricanes themselves generate carbon dioxide, the “greenhouse gas” normally associated with the combustion of fossil fuels. In this instance, too, there is disagreement among researchers about how fast hurricane-generated CO₂ dissipates and thus about whether it has any impact on the atmosphere (Kluger 2005). Emanuel further muddied the water on naturalistic explanations of recent hurricane behavior when he introduced the role of chance at an MIT symposium, “Big Questions After Big Hurricanes,” in late October 2005, describing the number of strong hurricanes making landfall during 2004 and 2005 as “more or less bad luck” (MIT News Office 2005b).

The introduction of human agency into this discourse has some interesting features. For the most part, human agency was implicit but nevertheless in the background of these debates. The habits of individuals and the decisions of corporations, both of which are typically lumped together as the “human behavior” that causes ever-increasing concentrations of CO₂ which in turn is producing climate change, by and large were not part of the conversation about the causal relationship between global warming and weather-related disasters. Somewhat ironically, it was critics on the political right who unintentionally stressed human agency by attacking not the link

between world temperatures and disasters but rather the logically prior causal connection between human behavior and global temperature increases. Steven Milloy of the Cato Institute and Fox News, for example, criticizes research such as that conducted by Kerry Emanuel on technical grounds but then dismisses climate studies in general as junk science (Milloy 2005; see his Web site, JunkScience.com). The Heritage Foundation's Mark Tapscott (2005), in criticizing the "Angry Left" for "exploiting" Katrina to score points in favor of the global warming thesis, goes on to remind readers of the wide range of (false) connections that have been made between human behavior and climate change.

Causal hypotheses such as those explaining the connection between global warming and its effects simultaneously encompass and exclude. Most noticeably they focus scientists' attention on meteorological phenomena for possible signs of change. Thus geological phenomena such as earthquakes and tsunamis are a "reach" in so far as their possible connection to climate change is concerned (see next section). Conversely, when human behavior is introduced as a causal variable, the pitfalls of the lack of generally accepted theory (of public policy?) become evident. Any human action of which one disapproves becomes a candidate for inclusion, and "data" supporting or undermining its causal role are open-ended, consisting in large part of anecdotal evidence and logical inferences. The similarities between religious and scientific explanations of multiple disasters are more pronounced than their differences, in form if not in content.

Multiple Disasters and Politics

Politicization of natural disasters may have reached an all-time high in the fall of 2005. Most prominent was the finger-pointing among local, state, and federal officials over what each did, did not do, or should have done before, during, and after the mega-disaster that was Hurricane Katrina. As interesting as this public squabbling was (and there were some intriguing themes: accusations that the Bush administration turned its back on New Orleans because of its high proportion of Black residents, or was indifferent to the plight of a so-called “Blue” state, or even wanted to intentionally mishandle the disaster in a deliberate effort to undermine people’s confidence in the federal government [on the last, see MIT News Office 2005a]), it is only indirectly related to our concern with the perceived causal connections among multiple disasters. We conclude our presentation with a discussion of three such connections found in the post-Katrina political arena.

One linked the attacks of September 11, 2001, to the handling of Hurricane Katrina in August and September 2005. More precisely, perceived inadequacies in responding to natural disasters was linked to the federal government’s emphasis on terrorism. For example, at a conference on terrorism and security in Washington, D.C., on September 6, 2005, financier and chair of the Open Society Institute George Soros argued that the war on terrorism had “done more harm than good. . . . It has diverted our attention from other vital” missions including preparations for and response to natural disasters (americaspurpose.org 2005). Others went beyond past events, projecting a probable causal link to future events and worrying that the 9/11-Katrina nexus foretold serious problems in handling future mega-disasters, whatever their origins (Sandalow 2005).

The president himself, in his televised speech from Jackson Square in New Orleans two weeks after the hurricane struck, drew another type of connection among disasters:

We're the heirs of men and women who lived through those first terrible winters at Jamestown and Plymouth, who rebuilt Chicago after a great fire, and San Francisco after a great earthquake, who reclaimed the prairie from the Dust Bowl of the 1930s. Every time, the people of this land have come back from fire, flood, and storm to build anew—and to build better than what we had before. (Office of the President 2005)

Here the causal logic is about the consequences of calamity rather than its origins. The connection is some sort of common thread in the American ethos.

This particular part of the president's speech seemed designed to accomplish two things: (1) to keep the focus on nature rather than human agency (what was or was not done by the Department of Homeland Security, the Federal Emergency Management Agency, etc.); and (2) to point out that disasters are ubiquitous (i.e., "stuff happens") and not unique to the era of fossil fuels and internal combustion engines. The key sentence is the topic sentence of the paragraph in which the quotation above is found: "In the life of this nation, we have often been reminded that nature is an awesome force, . . ." (Office of the President 2005). The same theme had been used previously by a White House environmental aide who was quoted in *The Observer*:

Hurricane Katrina was a natural disaster. Even had we ratified and implemented the provisions of Kyoto, this would not have stopped Katrina.

We've had hurricanes for centuries. (Jowit and Temko 2005)

The president was able to stay out of the debate over the link between global warming and hurricane disasters for two reasons. One was that there was sufficient disagreement among

scientists themselves so that no political intervention was necessary. The other was that the administration was already on record as being skeptical of the existence of climate change in the first place (refusal to endorse the Kyoto Protocol, etc.). If climate change does not exist, then the “independent variable” disappears from the global warming-hurricane hypothesis.

However much representatives of the Bush administration denied that their efforts to deal with the post 9/11 terrorist threat were negatively impacting their ability to respond to natural disasters, the administration clearly made a connection between its handling of Hurricane Katrina and the approach of Hurricane Rita three weeks later. Of course, learning from previous disasters is not unique to the current administration. It was clearly the guiding theme of the Clinton administration following the Northridge earthquake. In that case, the lessons learned were the perceived political and managerial shortcomings of the previous Bush administration in its handling of Hurricane Andrew in south Florida in 1992. To the axiom that generals always fight the previous war, we add the reminder that generals also “go to school” on other generals’ wars.

Conclusion

Examination of these three sectors leads to the conclusion that preexisting structure and values determine whether or not causal connections among multiple disasters are seen, what kinds of events are linked, and the nature of explanations offered for why such links exist. This observation is less trite than it might seem. Put simply, disasters are *used*—critics would say *exploited*—to advance whatever “agenda” claims-makers are already pursuing. Religious leaders use disasters to remind the faithful of their obligations, to convert nonbelievers, and to

score political points. Scientists—including sociologists (for example, ASA President Epstein’s post-Katrina initiative)—leverage disasters for increased research funding. Politicians use disasters to discredit their party’s opponents and to enhance their own standing among constituents. (For a description of other “winners” in disasters, see Scanlon 1988. Space does not permit commenting further on this here, but one should note both the fundraising advantages and pitfalls [such as “donor fatigue”] for organizations such as the American Red Cross, Habitat for Humanity, and the like.) If a single disaster is useful, a single mega-disaster is better still, and a series of mega-disasters is best of all.

If it is strategically useful to connect disasters and disaster “clusters” to some condition that is already an object of claims-making efforts such as abortion or greenhouse gases, then it follows that opponents of these efforts will attempt to “disconnect” the supposed cause from its alleged effect. Such efforts typically are accompanied by questioning the motives of the claims-makers. Two examples will illustrate. In the religious realm, atheists point to undeserved suffering of the innocent in disasters (babies, for example) and confront believers with three choices: either God is hideously unjust to permit this undeserved suffering, or all disaster victims deserve their fate (i.e., blaming the victim), or God does not exist (e.g., Sartwell 2005). To atheists, disasters are “incomprehensible,” “the universe is morally arbitrary,” and 2005 was “particularly impressive” in the annals of “universal indifference.” Those who preach otherwise are not only guilty of advancing a “perverse” position but also are exploiting innocent victims for their own selfish purposes (ibid.).

In the political realm, the same oppositional strategy is used. Our political example comes from the floor of the U. S. Senate, where James Inhofe (Republican from Oklahoma) sought to sever the connection between global warming and the 2004 Asian tsunami (Inhofe

2005). The interesting twist in this example is the manner in which the senator sought to undermine the motives of anyone attempting to claim that the former was a contributing cause of the latter. The vehicle for doing so was a reference to and an endorsement of Michael Crichton's 2004 novel, *State of Fear*. The basic premise of this novel is that nonexistent global warming is being used to further the ends of eco-terrorists. In an appendix, Crichton further disparages scientists conducting research on climate change as well as the universities and organizations for which they work and the government agencies and foundations that fund this research by drawing parallels to the eugenics movement of the late nineteenth and early twentieth centuries. The key passage from Inhofe's remarks on the Senate floor is the following:

Are we to believe now that global warming is causing earthquakes? The tsunami, of course, was caused by an earthquake off Sumatra's coast, deep beneath the sea floor, completely disconnected from whatever the climate was doing at the surface. Regrettably, the tsunami-warming connection is yet another facet of the "State of Fear" alarmists have concocted. . . .

Despite the bias, omissions, and distortions by the media and extremist groups, the real story about global warming is being told, and, judging by the welcome success of Michael Crichton's *State of Fear* [2004], it's now being told to the American public. (Inhofe 2005)

(For examples of the analysis of counter-claims, see McCright and Dunlap 2000, 2003. Ibarra and Kitsuse [1993, pp. 42–47] detail several "counterrhetorical strategies." See also Cohen's [1996, 2001] analysis of denials and counter-claims in response to human rights violations' reports.)

We end with two suggestions. Making causal connections among calamitous events is a process of social construction, not one of empirically discovering the objective links among phenomena. One suggestion for understanding the social dynamics of this process is to examine the *form* of seemingly similar constructions such as the creation of “serial killers” and disease “clusters.” Walter Green (2004) has compared serial killers with what he calls “serial disasters” and has identified at least nine elements common to both. Identification of disease clusters in the field of epidemiology is more codified. One key issue there is identification of death rates that are above average for particular diseases and categories of victims. In popular culture, the case of the 1970s leukemia cluster among children in East Woburn, Massachusetts, is perhaps the best known example, having been the subject of a CBS “60 Minutes” report in the mid-1980s, a book in the mid-1990s (Harr 1995), and a big-budget movie in 1998 (“A Civil Action,” Touchtone Pictures). The focus of these comparative analyses should be on the causal logic invoked to establish the similarity among disparate events. As a starting point, we recommend looking for applications of John Stuart Mill’s (1872 [1843], pp. 451–452) First Canon (the Method of Agreement), which holds that the cause of several instances of a phenomenon is the “circumstance” (that is, the one characteristic) that they all have in common. We repeat that such a circumstance should be assumed to exist “in the eye of the beholder” rather than as objective fact awaiting discovery.

Our second suggestion is that the payoff from this type of inquiry will come when we are better able to understand which (if any) of the causal connections “succeeds.” Claims-makers such as Reverend Falwell can offer causal hypotheses for multiple catastrophes, but this does not assure that they will change anyone’s behavior. Members of the public-at-large, exposed to the gamut of claims and counter-claims presented in the news media, on the Internet, and from the

pulpit are simultaneously evaluating and selecting as well as formulating their own interpretations and explanations. Bucher (1957; see also NORC 1954, Appendix B-4, pp. 76–95, written by Bucher but unattributed) examined the operation of what Hewitt and Hall (1973) later called quasi-theories to explain people's assignment of blame for a series of three plane crashes within a two-month period involving the same New Jersey airport. Embedded within each explanation was a solution to the problem. Hilgartner and Bosk (1988) offer many useful concepts related to the constraints impinging on the careers of causal hypotheses including competition within and the carrying capacity of public arenas.

Post-Katrina opinion polls offer support for the proposition that members of the public-at-large were selective in their evaluations of competing causal explanations. For example, Evangelical Protestants were more likely than anyone else to agree that the hurricanes were indeed deliberate acts of God (although only one third of all Evangelicals in the survey expressed this belief), Democrats were twice as likely as Republicans to believe that hurricane severity was a result of global warming, and those who believed that climate change was a reality were more persuaded of this connection than were those who believed that global warming was not taking place (ABC News/Washington Post 2005). Understanding the relationship between natural disasters and the politics of causality means understanding the relationships among claims, counter-claims, claims-makers, and their audiences.

References

- ABC News/Washington Post. 2005. "Most Rule Out God or Warming as a Direct Cause of Hurricanes." 23–27 September. Poll Conducted by International Communications Media, Media, PA. <http://abcnews.go.com/images/Politics/992a1HurricaneCauses.pdf>.
- americaspurpose.org. 2005. "The Terrorism, Security, and America's Purpose Conference." (6–7 September). <http://www.americaspurpose.org/archives/tsap.asp>.
- Associated Press. 2005. "Robertson: God May Smite Down Town That Voted Out Anti-Evolution School Board." (11 November). <http://www.foxnews.com/story/0,2933,175247,00.html>.
- Bucher, Rue. 1957. "Blame and Hostility in Disaster." *American Journal of Sociology* 62: 467–475.
- Choate, Francis. 2005. "2005 Hurricane Season: Hurricanes Katrina, Rita, and Wilma. What Will It Take to Make People Repent?" www.repentnow.com.
- CNN.com/U.S. 2001. "Falwell Apologizes to Gays, Feminists, Lesbians." (14 September). <http://archives.cnn.com/2001/US/09/14/Falwell.apology/>.
- Cohen, Stanley. 2001. *States of Denial: Knowing about Atrocities and Suffering*. Cambridge, UK: Polity Press.
- . 1996. "Government Responses to Human Rights Reports: Claims, Denials, and Counterclaims." *Human Rights Quarterly* 18: 517–543.
- Crichton, Michael. 2004. *State of Fear*. New York: Harper Collins.
- Emanuel, Kerry A. 2005a. *Divine Wind: The History and Science of Hurricanes*. New York: Oxford University Press.

- . 2005b. “Increasing Destructiveness of Tropical Cyclones over the Past 30 Years.” *Nature* 436 (4 August): 686–688.
- . 1987. “The Dependence of Hurricane Intensity on Climate.” *Nature* 326 (8 April): 483–485.
- Falwell, Jerry. 2005. “Is God Mad at Us?” (22 October).
http://www.worldnetdaily.com/news/article.asp?ARTICLE_ID=46975
- . 2001. “Transcript of Pat Robertson’s Interview with Jerry Falwell From the 9-13-01 edition of *The 700 Club*.” (13 September).
<http://www.commondreams.org/news2001/0917-03.htm>.
- Gelbspan, Ross. 2005. “Katrina’s Real Name.” *The Boston Globe* (30 August).
http://www.boston.com/news/globe/editorial_opinion/oped/articles/2005/08/30/katrinass_real_name/
- Green, Walter G., III. 2004. “Serial Disasters: First Thoughts.” Richmond, VA: Notes on the Science of Extreme Situations, Paper No. 15, Program in Emergency Management, University of Richmond.
- Greenwire. 2005. *Greenwire* (15 September).
<http://www.wbcds.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=16457>
- Harr, Jonathan. 1995. *A Civil Action*. New York: Random House.
- Hewitt, John P. and Peter M. Hall. 1973. “Social Problems, Problematic Situations, and Quasi-Theories.” *American Sociological Review* 38: 367–374.
- Hilgartner, Stephen and Charles Bosk. 1988. “The Rise and Fall of Social Problems: A Public Arenas Model.” *American Journal of Sociology* 94: 53–78.

- Houghton, J. T., G. J. Jenkins, and J. J. Ephraums (eds.). 1990. *Scientific Assessment of Climate Change—Report of Working Group I*. Cambridge, UK: Cambridge University Press.
- Ibarra, Peter R. and John I. Kitsuse. 1993. “Vernacular Constituents of Moral Discourse: An Interactionist Proposal for the Study of Social Problems.” Pp. 25–58 in James A. Holstein and Gale Miller (eds.), *Reconsidering Social Constructionism: Debates in Social Problems Theory*. New York: Aldine de Gruyter.
- infoplease.com. 2006. The link is: <http://www.infoplease.com/ipa/A0001437.html>.
- Inhofe, James M. 2005. “Climate Change Update.” Statement on the U.S. Senate Floor. (4 January). <http://inhofe.senate.gov/pressreleases/climateupdate.htm>.
- Jowit, Juliette and Ned Temko. 2005. “Prescott Links Global Warming to Katrina.” *The Observer* (11 September).
<http://observer.guardian.co.uk/international/story/0,6903,1567318,00.html>.
- Kinsella, Jack. 2006. “Shaking the Powers of Heaven.” *Omega Letter* 53:9 (13 February).
www.omegaletter.com.
- Kluger, Jeffrey. 2005. “Global Warming: The Culprit? Evidence Mounts that Human Activity is Helping Fuel These Monster Hurricanes.” *Time* (October).
<http://www.time.com/time/archive/preview/0,10987,1109337,00.html>
- McCright, Aaron M. and Riley E. Dunlap. 2003. “Defeating Kyoto: The Conservative Movement’s Impact on U.S. Climate Change Policy.” *Social Problems* 50: 348–373.
- . 2000. “Challenging Global Warming as a Social Problem: An Analysis of the Conservative Movement’s Counter-Claims.” *Social Problems* 47: 499–522.
- Marcus, Itmar and Barbara Cook. 2005. “PA Sermon: Katrina Was Allah’s Punishment.” (20 September). www.christdot.org.

- Mill, John Stuart. 1872 (1843). *A System of Logic: Ratiocinative and Inductive. Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation*. Eighth Edition. Volume One. London: Longmans, Green, Reader, and Dyer.
- Milliken, Mary. 2005. "World Weather Disasters Spell Record Losses in 2005." *Reuters* (5 December).
http://www.redorbit.com/news/science/322999/world_weather_disasters_spell_record_losses_in_2005/index.html
- Milloy, Steven. 2005. "Wilma Is Not Global Warming." (20 October).
<http://www.foxnews.com/story/0,2933,172949,00.html>
- MIT News Office. 2005a. "Panel Explores 'Unnatural' Hurricane Disaster." (23 November).
<http://web.mit.edu/newsoffice/2005/print/hurr-symp-nov15-print.html>
- . 2005b. "Hurricane Horror Mostly Bad Luck—For Now." (11 November).
http://presszoom.com/story_113097.html
- Mooney, Chris. 2005. "Some Like It Hot." *Mother Jones* (May/June): 36–49.
- National Opinion Research Center. 1954. *Human Reactions in Disaster Situations*. Chicago: Report No. 52, National Opinion Research Center, University of Chicago.
- National Research Council (eds.). 1983. *Changing Climate*. Washington, D.C.: National Academy Press.
- Office of the President. 2005. "President Discusses Hurricane Relief in Address to the Nation." (15 September).
<http://www.whitehouse.gov/news/releases/2005/09/20050915-8.html>.
- Reagan, David R. 2005. "Hurricane Katrina: The Prophetic Significance." *Lamplighter* 26:6 (October): 3–10.

- Sandalow, Marc. 2005. "Natural Disaster's Mark: In Hurricane Katrina's Wake, Some Question Whether Battle against Terrorism Is the Right Fight." *San Francisco Chronicle* (11 September).
- <http://sfgate.com/cgi-bin/article.cgi?file=/c/a/2005/09/11/ANNIVERSARY.TMP>.
- Sartwell, Crispin. 2005. "The Year in Atheism: 2005." (29 December).
- http://eyeofthestorm.blogs.com/eye_of_the_storm/2005/12/this_year_in_at.html.
- Scanlon, T. Joseph. 1988. "Winners and Losers: Some Thoughts about the Political Economy of Disaster." *International Journal of Mass Emergencies and Disasters* 6: 47–63.
- Sims, Nancy Sims. 2005. "Katrina, Rita, Wilma: God's Retribution Upon America?" www.lightfortoday.com.
- Spotts, Peter N. 2005. "Storm Season Ends: Are Potent Hurricanes Linked to Global Warming?" *The Christian Science Monitor* (30 November).
- <http://www.csmonitor.com/2005/1130/p03s02-usgn.html>
- Stallings, Robert A. 1986. "Reaching the Ethnic Minorities: Earthquake Public Education in the Aftermath of Foreign Disasters." *Earthquake Spectra* 2: 695–702.
- Strandberg, Todd. 2006. "The Rapture Index." (6 March). www.raptureindex.com/rap2.com.
- Tapscott, Mark. 2005. "Angry Left Shamefully Exploits Race, Iraq, Kyoto against Bush on Katrina." *Townhall.com* (3 September).
- <http://www.townhall.com/opinion/columns/marktapscott/2005/09/03/155326.html>
- Union of Concerned Scientists. 2005. http://www.ucsusa.org/global_warming/science/heat-wave-2005-and-Global-Warming.html.

Wesley, John. 1730. "The Cause and Cure of Earthquakes." Edited by George Lyons with corrections by Ryan Danker. Nampa, ID: Wesley Center for Applied Theology, Northwest Nazarene University. <http://www.theamericanview.com/index.php?id=501>.