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Social Action and Catastrophe

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"If you can keep your head when all about you
are losing theirs...you'll be a man my son."

(Kipling, "If")

I. INTRODUCTION

This essay addresses the topic of social action in catastrophic situations. The main phenomenon to be explained is how social actors cope and adjust to a sudden and unexpected change in the ecological pressures around them, such as during natural and technological disasters, in warzones, in the aftermath of accidents, and so on.¹ Using interpretative and phenomenological methods (Bentz and Shapiro 1998), this essay builds towards a Weberian kind of "ideal type" model outlining key sociological variables that try to explain differential social responses from human beings as they experience catastrophic circumstances.² Human beings must act very differently during catastrophes

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¹ This essay assumes a certain structural equivalence in these crises where in reality there may be more differences among them. In 1937, Professor Margaret Wood, at a session of the Southern Sociological Society annual meeting, queried, in relation to "the absorbing topic of crisis behavior," whether "people behave differently in crises which are caused by so-called 'Acts of God' as floods, tornadoes, earthquakes, and fires" as they do "in crises which are a result of 'man's inhumanity to man'"? (in Kutak 1938: 72). Social scientists and others are still developing an answer to this question.

² The science of catastrophes spreads out across many disciplines and theoretical schemes (see Jiobou and Lundgren 1978).

than they do during normal life. Just why is it that some people just succumb to the elements, while others struggle to persevere? How do some social actors manage to rely on their intelligence, resources, skill sets and other assets to control an otherwise hostile environment while others fail to do so?

Many sociologists and most social theorists are fundamentally interested in the relationship between individuals and society. In catastrophes, such relationships are severely strained, sometimes to a breaking point. They can involve the “destruction of families, entire villages, and traditional ways of life; the unraveling of preexisting social structures, social roles, social arrangements and rituals; the terrorization and ‘silencing’ of victims and onlookers; the massive disruption of trusting connections with others; and other massive upheavals in human relationships and activities and in culture itself” (Ehrenreich 2003: 19). These are situations where nature prevails over individuals in brutal, terrifying, and unexpected ways, and human culture and activity recedes (if only perhaps just temporarily) into the background.³

This essay focuses on human actions that mitigate the consequences of such events – on the social practices through which culture gets (or fails to get) reestablished as human beings attempt to regain control their immediate environment. In terms of the parameters of this volume, it attempts to delineate some of the more the salient social dynamics and processes that occur in decidedly “dystopian” circumstances.⁴ Catastrophes

³ On the culture/nature distinction, see Hazelrigg (1995).

⁴ Such a statement may seem absurd when so many members of contemporary societies have very comfortable middle class lives and never contemplate dystopia in the abstract, let alone experience anything like it in practice. Although certainly many individuals today live rather “safe” lives in society, the reality is that no one is completely immune from danger. Anyone’s life can become dystopian in an instant and there is also a creeping dystopia (e.g. global warming; agribusiness, water shortages) that operate behind the backs, so to speak, of most social actors, but sooner or later will become more difficult to conceal. Catastrophe becomes a more regular occurrence and more actors will experience (even if this experience is merely punctuated) extreme environments during their lifetime.

signal a definitive break from civilization and some human beings regress into a sort of pre-modern kind of existence.⁵ These scenarios are obviously not voluntarily chosen by participants or willed into being by them. To the contrary, the types of environments discussed in this essay often are a person's worst nightmare and represent a complete "Otherness" of experience impossible for subjects to fathom.

Although it is important to note important differences across catastrophic situations, there are many parallels, such as knocking people off their balance, threatening immediate and lasting harm, and forcing actors to urgently reestablish identity (White 1992) in the face of massive social disorganization. With Lanzara (1983: 71), the analytical focus of this essay "is on the micro-level, exploring the behavior small volunteers' or folk groups that emerge and take action in the aftermath of disasters." It seeks to understand human reactions to extreme events as they are happening. Taking seriously the notion that sociology should provide "a down-to-earth approach to the scientific study of group life and human conduct" (Blumer 2007: 68) that explores and investigates social worlds in their "natural" state, i.e. as people actually live their lives, the central idea of this work is that catastrophes and disasters offer theorists and other observers quasi natural experiments into differential forms of action after conditions of social breakdown; they allow us to consider the social factors influencing why some people manage to behave rationally, even humanely, and others less so. How and why do some human actors fail to cope with their rapidly changed ecological milieu while others manage to improvise, adapt and survive them?⁶

⁵ Remember August Comte's definition: "Sociology is the science of civilization."

⁶ It is hoped that the present work will provide a theoretical scheme which may be empirically tested and elaborated by others (including the present author) in future work.

As our world becomes increasingly dystopian (see Diamond 2006) and crisis ridden, there will be great need for social observers to understand and analyze the social processes through which how humans act in catastrophic circumstances. This essay endeavors to make a contribution to uncover what occurs during experiences of these events, that is, how humans – in their “nature” as *Homo sapiens* – fare amidst catastrophe, and what sorts of insights such social environments may provide when society faces the next disaster.

The following section looks into these ideas about acting in extreme environments in more detail, after which we consider the sociology of anatomical social facts. The preliminary attempt at a model of action in catastrophes appears at the end of this work.

II. ACTION IN EXTREME ENVIRONMENTS

Although not an entirely neglected area of study (See, for example, Prince 1920; Kutak 1938; Wallace 1956; Barton 1969; Janis 1969; Erikson 1976; Lanzara 1983; Sztompka 2000; Hoffman and Oliver-Smith 2002; Clarke 2003; Clarke 2006; Alexander, et. al. 2004; Neal 2005; Rodriguez, Trainor and Quarantelli 2006; Freudenberg, et. al. 2008) traumatic environments and catastrophic situations do not generally receive much intellectual attention by contemporary sociologists and social theorists. Given the increasingly risk-prone nature of contemporary societies, however, including a global recession, ubiquitous environmental calamities, permanent war zones across the world, etc., this seems a bit shortsighted. Indeed, with the persistent ongoing social turbulence in contemporary societies, it could be argued that it will become increasingly important to

understand “how people respond to extreme events...to situations of social breakdown” (Clarke 2003: 125). To better illustrate this mode of reasoning, consider the following vignettes drawn from two recent catastrophic events in American history.

In late August 2005, as New Orleans was still in the midst of coping with Hurricane Katrina, many survivors who could not evacuate the city languished in flooded homes or waited outside the New Orleans Convention Center and Superdome, hoping for aid and assistance. Other actors, however, were not simply passive witnesses to their own helplessness, but managed to engage in positive action to change their situation, and the situation of others, for the better. One such action involved Mr. Jabbar Gibson, a 21 year old man from New Orleans, who in the wake of Katrina’s destruction managed to commandeer an idle school bus, drive it to the Convention Center and then take a load of passengers on “a wild 12-hour ride filled with breakdowns, mishaps and close calls with the law” (Perlstein 2006: 1) to safe haven in the Houston Astrodome. Gibson’s bus was the first to bring evacuees to safety. Sociologically speaking, just how are we to explain the social forces and dynamics that unfolded in this situation?

One could argue that the effort to provide solid explanations of incidents of this sort ought to be an integral part of the cultural narrative that sociologists provide in the 21st century. As another example, take the hijacking of United Flight 93 – the fourth hijacked plane on September 11th, 2001 and the one that presumably was heading for the White House. As we know from the cockpit data recorder and telephone conversations passengers made to family members and friends on the ground, some passengers on board Flight 93 organized what turned out to be a robust (albeit tragic) form of social action. Determining strategy at the back of the plane away from view, the passengers

mobilized against their hijackers. Using a concessions cart and fire extinguishers as battering rams, they stormed the cockpit, subdued the pilots, and forced a crash landing in Shanksville, Pennsylvania. Through their action, the passengers effectively prevented the terrorists from accomplishing their deadly ambitions (Longmon 2003). As social theorists, how are we to make sense of this chain of events? What were the specific social (as opposed to psychological) forces that compelled the passengers to act in such a way? What were the key social dynamics and processes involved? In what ways was the passenger's collective reaction and action socially constructed?

As a final example of the sorts of cases that demonstrate the importance of studying social action in catastrophe, consider the case of six people stuck in an elevator of the World Trade Center on 9/11 just after the first plane hit the north tower at 8:48 a.m. Inside the elevator were Jan Demczur, a window cleaner, and five other men. Using the blade and handle of his window washing tool to pry open the elevator doors, the men took turns scraping at a plasterboard wall across from the shaft. When they struck ceramic tile they surmised they had stopped adjacent to a bathroom and managed to smash a hole through the wall. After working for an hour, they had made a hole big enough for all of them to crawl through and they dropped into the bathroom and then ran for their lives (See Bruinius 2002; Dwyer and Flynn 2005: 154-156, 162). This is one of the most interesting stories to emerge from 9-11. Just what was its sociological basis? How should we explain its constituent features and salient dynamics to students in our classrooms?

When it comes to understanding social action and catastrophe, one must first consider that there will be events that deprive individuals from the opportunity to act with

intent. Obviously some catastrophic situations come on very quickly, such as car accidents, plane crashes, tornadoes, bombings or nuclear attacks, and actors have very little or no time to act. As Rousmaniere (1980: 165) puts it, these “are occasions when men can do little or nothing to help themselves.” Yet other extreme events and catastrophic situations unfold more slowly and actually offer individuals opportunities to adapt or improvise in a “period of recoil” (Rousmaniere 2002: 198) and provide the social transcript (Scott 1995) for analysis and interpretation suggested by this essay.

It should be clear that such a research interest is in many ways quite different from other scholarly work on catastrophe and disaster. First, unlike much literature, the present work is interested mainly in human reactions to catastrophic or extreme environments as they initially occur and in their immediate aftermath, i.e. during the “period of recoil.” Although sociological and other scientific work on the causes and long term consequences of disaster is obviously highly important, that is not the primary focus of this work and is located elsewhere (see, for example, Freudenberg, et. al. 2008). Second, the present essay strives to maintain the analytically necessary distance from narratives of heroism or horror that often emerge in the aftermath of catastrophic events. Rather than providing real insight into the human condition, more often than not such narratives often devolve into benign platitudes about people “doing the right thing” or “stepping up to the plate”. On the other hand, other narratives describe how people turn into anti-social “monsters” or “animals” during the catastrophes.⁷ While such insights may be pertinent with regard to particular instances, they do not facilitate rigorous sociological analysis or understanding. The third distinctive feature of the present

⁷ For examples, references to looting, criminal behavior, widespread rapes, shooting at helicopters, etc. after Hurricane Katrina. Many stories reported as fact were found out later to be unsubstantiated or exaggerated by the media.

research project differs from that of others is its reluctance to rely on the various psychologically maladaptive or “dysfunctional” responses to catastrophes, e.g. depression and other forms of mental illness, alcoholism, drug use, etc., or socially traumatic responses to catastrophe described by researchers such as Erikson (1976). While such research is not only legitimate, but also important and necessary, it does not follow in the sociological current of trying to understand extreme events and catastrophes as I am pursuing it here.

Instead of following these approaches to disasters, the current essay is oriented towards a tentative model of the key sociological variables and social processes at work in catastrophic situations. By employing and adding to the “ideal type” of *catastrophic situations*, comparing it in reference to empirical research of past catastrophes, we might be better able to identify predictive dynamics and the develop action oriented typologies that observers may be able discern in extreme events and catastrophic situations of the future. Before concentrating on the development of this model, however, a few remarks about the relationship of this research to the subject matter of sociology, proper, will be in order.

III. SOCIOLOGY AND THE STUDY OF ANATOMICAL SOCIAL FACTS

Although at first glance it might seem that the main objective of this essay, namely, understanding differential human action in catastrophic situations may be somewhat marginal to the discipline of sociology and social theory, closer inspection should

demonstrate that the former is central to the latter. It is one of the defining purposes of this essay to reclaim for sociological and social theorizing an aspect of their subject matter that has been strangely neglected and largely forgotten.

More than any classical sociologist, Emile Durkheim was adamant that sociology is and must be a true scientific discipline. Yet he argued it could only be a real science, if like other sciences, sociology had its own unique subject matter, one that is distinctive from the other disciplines. Durkheim proposed that the only proper subject matter for sociology was what he called “social facts” (Lukes 1985: 10-12), i.e. social forces external to individuals that constitute constraints on human action. Although Durkheim’s remarks on this concept are not always clear, we do know according to Lukes, that “Durkheim saw social facts as lying on a continuum. At one end are structural, ‘anatomical or morphological’ social facts, making up the ‘substratum of collective life’ (Lukes 1985: 9). As Durkheim puts it: “Social life rests upon a substratum which is determinative both in its extent and its form. It is composed of the mass of individuals who comprise the society, the manner in which they are disposed upon on the earth, and the nature and configuration of objects of all sorts which affect collective relations” (in Emirbayer 2003: 78). Anatomical social facts represent “the tangible, material forms of societies...the nature of their substratum” (in Emirbayer 2003: 78). These facts vary “according to geographical disposition...[and are] the base from which social life arises” (in Giddens 1972: 72). To put it another way, it is clear that in referencing structural, anatomical, or morphological social facts, Durkheim had in mind some concept of the socio-ecological or environmental pressures and constraints that operate upon social organization and human society. Such social facts are foundational because without

coping with them, societies would never be able to remain stable for long, let alone develop the sort of highly differentiated systems of organization that Durkheim thought would bring about organic solidarity. Studying such classes of social facts, then, was one of the primary purposes of sociology according to Durkheim, and he also deemed it significant enough that it could constitute an independent discipline of its own, which he called “social morphology.”⁸ Durkheim writes that “this substratum directly or indirectly affects all social phenomena (in Emirbayer 2003: 77). He goes on to write that “this new field will study, not the forms of the earth, but the forms which effect societies as they establish themselves on the earth” (in Emirbayer 2003: 78).

According to Lukes, the second main category of social facts delineated by Durkheim is what he called institutional social facts, by which he meant social pressures and constraints found in the context of various (i.e. legal, political, religious, familial and economic) institutions. This is the type of sociology that is probably most familiar to contemporary sociologists and social theorists and represents the bulk of sociological teaching and research. Durkheim’s third main category of social facts was the least well defined (Lukes 1985) and involves external social pressures and constraints that are not specific to any particular institutional domain. Durkheim referred to these types of non-institutionalized social facts as “social currents” (Lukes 1985: 10).

The point in discussing this brief intellectual history is to remind readers how much the discipline and subject matter of sociology has become overly delimited and circumscribed in recent years. Many sociologists today would be hard pressed to provide

⁸ Maurice Halbwachs (1960) was the key figure to expound this aspect of Durkheim’s thought. There were some important early parallels between the development of social morphology and the field of human ecology, but with the emergence of these specialized disciplines, it appears sociologists as a whole largely lost interest in this important, socio-environmental, aspect to their discipline.

a definition of the concept of anatomical social fact, and most probably wouldn't use the term "social fact" in reference to the purpose of the discipline of sociology in general. The upshot of all of this is that many sociologists and social theorists are neglecting to adequately reflect upon and theorize a large portion of the social world and a significant portion of their subject matter. Although many sociologists today spend a great deal of time and effort researching and teaching various institutional (e.g. poverty, religion, the media, etc.) and non-institutional social facts (e.g. fads, crazes, rock concerts, gun violence, and so on), there has been a corresponding neglect of the study of anatomical social facts in the discipline as a whole. This is highly problematic because the elucidation of anatomical social facts are no less important in Durkheim's terms for the discipline of sociology, than the other two main classes of social facts, and arguably more so.

On a deeper level, the jettison of the analysis of anatomical social facts from the discipline of sociology⁹ is even more peculiar since anatomical social facts are arguably the most constraining of any social facts facing human beings. As is quite clear to anyone who has had any experience with a car accident, for example, or has been lost in the woods, or even has experienced some sort of traumatic event (such as a fire) in the naturalistic conditions of home, the social impact from anatomical social facts is quite tremendous. Many individuals in Euro-American and other contemporary societies successfully manage to enjoy a relatively high standard of living and through the

⁹ In spite of a general paucity of interest in this subject matter, there are notable exceptions. Seventy years ago in his discussion of the Louisville flood at the Southern Sociological Society meeting of 1938, Robert Kutak expressed the essential idea which I am pursuing. He wrote: "man will not supinely by and let nature do with him what she will. It is because man has fought back at nature that civilization developed." Humans have an "age-old desire to prevent nature from controlling the conditions of his life" (Kutak 1938: 70).

cooperative and competitive workings of society manage to keep nature at bay. Yet in some important respects, societies are having increasing difficulty keeping nature removed from culture (Beck 1984, Hazelrigg 1995) and around the world anatomical social facts continue to exert a huge influence on how human beings live their lives. One need only reflect upon some of the tragedies of the early 21st century such as the 9/11 attacks, Hurricane Katrina, bridge collapses in Minnesota, tornadoes, forest fires in the West, not to mention micro-biological social facts of, for example, the swine flu virus and e-coli bacteria in our food supply, to realize that humans in contemporary societies at times are “overwhelmed by environmental forces [they were] never designed to withstand” (Kamler 2004:13). Given this reality, it is quite ironic, as well as worrying that much of sociology and social theory has seemed to have forgotten or neglected to theorize or think about this subject matter in recent years.¹⁰ It appears that many social researchers and scholars no longer even recognize as legitimate such areas of study within their discipline and would prefer to embark on sterile analyses of global institutions, for example, or remain within the safe confines of established qualitative and quantitative research methodologies, which have little or nothing to do with Durkheim’s conception of sociology. If Durkheim’s delineation of sociology gets lost or forgotten, the whole discipline runs the risk of collapse. On the other hand, if more sociologists would reflect upon the roots of their discipline with its own unique subject matter, and if they strive to be true to this call, perhaps more might become interested in once again understanding the profound impacts of anatomical social facts and human reactions to them. Extreme environments and catastrophic situations create social facts like none

¹⁰ For a parallel argument, on the failure of sociologists to conceptualize environmental facts as social places, see Antonio’s essay in this volume.

other and are arguably much more influential upon identity than many of the categorical variables (race, class, and gender, for example) that get bandied about with so much alleged significance in introduction to sociology classes and to which so many professional sociologists and social theorists unthinkingly devote so much of their time.

IV. TOWARD AN ANATOMICAL SOCIOLOGY OF 9/11 AND HURRICANE KATRINA

Two recent case studies that offer extensive and compelling narratives for analyzing social action in extreme environments and catastrophic situations are the terror attacks of September 11, 2001 on the World Trade Center in New York City, and the devastation wrought on New Orleans, LA and the other parts of the Gulf Coast region after Hurricane Katrina. According to the *New York Times* (2009):

It was the day when the unreal became the unimaginable. Sept. 11, 2001, the crystalline morning when planes dropped from the skies and toppled the World Trade Center and punctured a hole in the Pentagon...shattered the security of the country and introduced a nebulous and virulent enemy previously unfamiliar to most citizens. Nearly 3,000 people died that morning, the vast majority of them in the gnarled rubble of the Lower Manhattan towers, others at the Pentagon and in a rural Pennsylvania field. A numbed country with red-rimmed eyes came to understand the ugly menace of terrorism.

The catastrophe of 9/11 began when an American Airlines Flight struck “1 World Trade Center, the north tower, at 450 miles an hour” (Dwyer and Flynn 2005: 20). Instantly,

“10,000 gallons of jet fuel ignited into giant fireballs, the biggest with a girth of 200 feet, wider than the building itself” (Dwyer and Flynn 2005: 80) and temperatures in parts of the building reached in excess of 1,000 degrees (Dwyer and Flynn 2005: 267). Hundreds of people died instantly, others started jumping from windows to avoid the extreme heat. By the end of the day both towers of the World Trade Center had had collapsed and brought down adjacent buildings in their wake. The remains of the World Trade Center smoldered for a full 100 days (Wright 2006).

Hurricane Katrina slammed into the Gulf Coast during the last week of August in 2005. According to the *New Orleans Times-Picayune* (2009):

Hurricane Katrina struck the New Orleans area early morning August 29, 2005.

The storm surge breached the city's levees at multiple points, leaving 80 percent of the city submerged, tens of thousands of victims clinging to rooftops, and hundreds of thousands scattered to shelters around the country. Three weeks later, Hurricane Rita re-flooded much of the area. The devastation to the Gulf Coast by these two hurricanes has been called the greatest disaster in our nation's history.

According to historian Douglas Brinkley: “Not since Atlanta had been burned to the ground had a swath of Dixie looked so wretchedly barren” (2006: 173). 400,000 people in Louisiana, Mississippi, and Alabama needed immediate assistance (Brinkley 2006: 249). Hurricane Katrina was responsible “for more than 1,600 deaths and tens of billions of dollars in damages” (*Associated Press* 2009). A Slidell, LA police officer, Rob Callahan spoke for many when he said, in reference to the destruction, “Imagine your worst nightmare and quadruple that 100 times” (Brinkley 2006: 357). The nightmare of

Katrina was ubiquitous and many residents have yet to awake now more than four years later.

Although 9/11 and Hurricane Katrina are obviously very different catastrophic events and generated their own unique extreme environments, they also share some important parallels and similarities. In their book detailing the last 102 minutes in the World Trade Center, Dwyer and Flynn describe the dramatic change in the American psyche after the 9/11 attacks: “All across the northeastern United States, people were essentially on their own, stepping into the first minutes of a new epoch without the protections of an old world order whose institutions and functions seemed to have turned instantly decrepit (2005: 247).” Similarly in New Orleans and on the rest of the affected Gulf Coast, people were also abruptly cut off from the rest of the world. Survivors of the hurricane also did not know the “protections of an old world order,” and like their fellow citizens in New York City on 9/11, they also found their social institutions to be “instantly decrepit.”¹¹ In both environments, during and after the catastrophe, things just “didn’t make sense any more” (Brinkley 2006: 321). Irrationality became the new hallmark of our time.

In the immediate aftermath of the terror attacks and the hurricane, survivors found themselves in a profound state of radical autonomy, one of the most salient characteristics of all catastrophic situations. Extreme environments make all the quotidian aspects of daily life that seemed so important a few seconds ago, pointless and absurd as people are unshackled from the normal routines of everyday life. In advanced contemporary societies most of the time, most individuals believe that that they can depend on others to help them meet their needs and in the best of times, a Durkheimian organic solidarity

¹¹ Indeed, four years after the Hurricane many of these social institutions have still not recovered.

pervades the scene. If something goes wrong, one only need pick up the telephone, make a call, and possibly later take out a check book to solve the problem. In extreme environments caused by catastrophic events, however, this structure of mutual dependency vanishes – there is simply no one available for assistance, with the exception of perhaps other social actors who find themselves in the same situation. During both the 9/11 attacks and after Hurricane Katrina, “the expectations of protection, the habits of defense, and [a] sense of safety” (Dwyer and Flynn 2005: 247) disappeared in a heartbeat and people suddenly had to fend for themselves.¹²

In attempting to cope with the awesome and terrifying anatomical social pressures of 9/11 and Hurricane Katrina, people reacted in a multitude of ways. Some people were struck dead instantly. Other responses spanned the range of “human valor and frailty and struggle” (Dwyer and Flynn 2005: xxii). The many comforts and relative affluence of contemporary societies make it difficult for even people unharmed during the initial waves of destruction or shocks of extremity, to cope very readily with *any* change in their

¹² There is obviously “the need for leadership in any crisis” (Brinkley 2006: 91). One would like to think that, in extreme and risky situations, people who are in leadership roles already would continue in that capacity. Sometimes this does happen (Dwyer and Flynn 2005: 22), but many times it does not. Mitch Landrieu, Lieutenant Governor of the State of Louisiana also seems to have been a good leader in the aftermath of Katrina. But in the main, leadership was sorely lacking, especially by the New Orleans Police Department. Many in the force simply abandoned their posts and drove their police cars to safety. As Brinkley writes, “It became sport in Houston [to] see how many NOPD cars you could photograph in town today. High-tailing NOPD officers had lost track of rules and regulations; many just drove their patrol cars straight out of the bowl to Texas” (2006: 203). Heather Allan, a 52-year old producer for NBC, offered this assessment of the New Orleans police during the tragedy. She said: “I saw a ninety-eight-year-old man paralyzed in a wheelchair ask for help and they just scoffed at him. They kicked three little huddled women with nowhere to go out of the Marriot because that was where the NOPD was sleeping . . . just tossed them on the street. . . They wouldn’t even answer questions of people who asked which way the Superdome or the Convention Center was. They basically mocked all the homeless. I have never, ever, seen such a cold, I-don’t-give-a-shit attitude from cops in my life” (Brinkley 2006: 205). Brinkley (2006: 385) sums up the leadership vacuum: “For whatever reason – old tensions or storm-induced confusion – the police were often part of the problem after Katrina, not the solution.” The US Coast Guard was arguably the only federal government agency to do well in the immediate post-Katrina aftermath. “Over the ten-day period following Katrina they evacuated more than 33,500 people using orange helicopters and flat-bottom boats” (Brinkley 2006: 213). The Cajun Navy, comprised of members of the State of Louisiana Wildlife and Fisheries also performed exceptionally after the storm.

social environment. Experiencing a sort of shellshock as their senses are overwhelmed they experience a sort of learned helplessness, a particular tragic form of Max Weber's affective or emotional action (Collins 1981).

John Rousmaniere in his study of shipwrecks notes that some passengers and crew "escape in mad humor, others ... in an equally mad observance of regulations" (Rousmaniere 2002: 199). He writes that, "of every ten people in a crisis, psychologists report, one or two behave heroically, another one or two are helpless, and the rest muddle along, trying to do their decent best. Who will be in those groups is not easy to predict, except that well-trained people who know basic skills and who have been through simulated disasters generally fall into the first group" (2002: 7-8). Kutak (1938: 67) describes a "holiday spirit" which can overcome survivors of a disaster. As he put it: "Immediate needs replace ultimate purposes as the criteria in terms of which behavior is determined. The inhibitions and the formalities of social life disappear...A crisis situation thus produces a state of mind closely approximating intoxication" (Kutak 1938: 67).¹³ More recently, sociologist Lee Clarke (2003) discusses responses to catastrophe in terms of relations of solidarity (e.g. helping or assisting other people) or relations of destruction (e.g. looting, violence).¹⁴ While acknowledging that relations of destruction can be found in catastrophic situations, he argues that "altruism and cohesion, not self-

¹³ Kutak later refers to this using the term "crisis intoxication" (1938: 67). A similar form of intoxication can be seen at "hurricane parties" in Florida, in the melee after the Rodney King verdict, and in people being snowed in for a few days in the Rockies. Sometimes this can lead to forms of hysteria. This is how quartermaster Hank Strauss observed his own ship, the *Pollux*, going down in the waves off the coast of Newfoundland. He wrote: "I went on deck with the other quartermaster signalmen and when we looked up and saw the cliff we started laughing. There we were: forty-foot seas breaking over the ship; the deck smashed into kindling; heavy bunker oil pouring out of the ship everywhere and covering everything; officers telling us that the ship was likely to roll right off the shelf and sink at any moment. All that was happening and all we could do was laugh. It seemed so funny that *those stupid officers* had actually run the ship into a cliff!" (in Rousmaniere 2002: 199).

¹⁴ In some ways, this seems to mirror Mead's discussion of the two movements of human behavior – towards social antagonism or social cooperation, which also is somewhat similar to the Freudian/Marcusian notion of life versus death urges (*eros v. thanatos*).

interest and panic, are the central tendencies in response to extreme events” (2003: 132).¹⁵

In both New York City and in New Orleans after Katrina one finds plenty of examples of such relations of solidarity. The account described above about the men who managed to escape from the elevator on 9/11 is one case in point, there are many others. One of the most memorable accounts in Brinkley’s history of Hurricane Katrina involves his discussion of “citizen first responders” known as the “NOLA Homeboys.” With representatives of the Federal Emergency Management Association not yet on the scene, the New Orleans Police Department missing in action, and the whole city crippled by disaster, New Orleans who remained residents had to take matters into their own hands. Brinkley writes:

The very first responders will never be known by name. When the levees broke, and the bowl started filling, hundreds of residents with recreational vehicles went into high gear. The city had people conducting rescues with yachts, dinghies, ferries, canoes, rafts, sailboats, scows, skiffs, sloops, tubs, catamarans, dories, draggers, baiters, and ketches....They were known at Johnny White’s Bar as the NOLA Homeboys, the oddballs who refused to evacuate, who were saving New Orleans from the ravages of Katrina...They had no official insignia or training. They were bartenders and insurance salespersons and clerks – regular folks. It

¹⁵ We are often surprised by the solidarity we find in catastrophic situations. People who heretofore were considered criminal and deviant banded together for the safety of the emerging population. One witness described what she saw at the New Orleans Convention Center: “These guys were criminals. They were. But somehow these guys got together, figured out who had guns and decided they were going to make sure that no women were getting raped...and that no one was hurting babies...They were the ones getting juice for the babies...They were the ones getting clothes for people who had walked through that water. They were the ones fanning the old people” (Brinkley 2006: 477).

never dawned on them to wait for the FEMA trucks or the Oregon National Guard (Brinkley 2006: 303).

Tales of similar actions and initiatives could be found from throughout the city. Larry Bradshaw and Lori Beth Slonsky, emergency medical workers from San Francisco who happened to be in New Orleans for a conference, observed that the “real heroes and sheroes [sic] of the hurricane relief effort” were not members of FEMA, the National Guard, or state or local government, but rather “the working class of New Orleans” who used various skills at their disposal to help people cope with the tragedy. In their account, they describe:

The maintenance workers who used a fork lift to carry the sick and disabled. The engineers, who rigged, nurtured and the kept the generators running. The electricians who improvised thick extension cords stretching over blocks to share the little electricity we had...Nurses who took over for mechanical ventilators and spent many hours on end manually forcing air into the lungs of unconscious patients to keep them alive. Doormen who rescued folks stuck in elevators. Refinery workers who broke into boat yards, ‘stealing’ boats to rescue their neighbors clinging to their roofs in flood waters. Mechanics who helped hot-wire any car that could be found to ferry people out of the City. And the food service workers who scoured the commercial kitchens improvising communal meals for hundreds of those stranded (Bradshaw and Slonsky 2005: 2).

Bradshaw and Slonsky were also part of the hundreds of people without food, water, or shelter who attempted to cross the New Orleans Bridge and seek save haven in Gretna, LA, but were turned back at gunpoint by the Gretna Police. Retreating after shots were

fired over their heads, they formed an “an encampment in the middle of the Ponchartrain Expressway on the center divide, between the O’Keefe and Tchoupitoulas exits”

(Bradshaw and Slonsky 2005: 4). For a brief period, this encampment flourished as a sort of emerging civic space. Over time, the

little encampment began to blossom. Someone stole a water delivery truck and brought it to us...A mile or so down the freeway, an army truck lost a couple of pallets of C-rations [MREs] on a tight turn. We ferried the food back to our camp in shopping carts...We organized a clean up and hung garbage bags from the rebar poles. We made beds from wood pallets and cardboard. We designated a storm drain as the bathroom and the kids built an elaborate enclosure for privacy out of plastic, broken umbrellas, and other scraps. We even organized a food recycling system where individuals could swap out parts of C-rations (applesauce for babies and candies for kids) (Bradshaw and Slonsky 2005: 5).¹⁶

One important research agenda for contemporary sociologists might be to explain just how such instances of “active agency” (Paine 2002: 67) during 9/11 and Hurricane Katrina emerged and what social dynamics and forces sustained them. It appears that language or communication (Habermas 1989)¹⁷, is a key component to regenerating social organization. People begin to reclaim their environments and reinstitute culture once they start to converse with each other again. In describing how the 1,000 or so people still trapped in the World Trade Center reacted immediately after the initial attack,

¹⁶ Bradshaw and Slonsky’s emergent organization, however, would come to a rather abrupt end. Quickly numerous media organizations were focusing on the camp and “officials were being asked what they were going to do about all those families living up on the freeway” (Bradshaw and Slonsky 2005: 5). Not long after, the Gretna police returned to confront the group again, and after blowing away their structures with a helicopter, the group was, “at gunpoint, forced off the freeway” (Bradshaw and Slonsky: 5).

¹⁷ In Harrison White’s (1992) phrasing, “talk” or “stories.”

Dwyer and Flynn write: “the men and women stranded on the upper floors dialed cell phones, tapped the miniature keyboards on their pagers, and spoke into two-way radios, fashioning a bridge of voices” (Dwyer and Flynn 2005: 40). Similar stories were told from New Orleans; with no telephone and cell-phone service, text messaging for some became the only form of contact with the outside world.

VI. TOWARDS A MODEL OF HUMAN REACTION TO CATASTROPHES

The previous section used the examples of the 9/11 attacks and Hurricane Katrina to illustrate the sorts of social dynamics of interest for a research project that took the responsibility of analyzing anatomical social facts in the context of catastrophes and disasters seriously. There are a great many more examples that could be provided from these momentous events in American history, and plenty of others drawn from around the world. Using additional insights from these and other case studies, the present section attempts to specify in further detail some of the key variables, processes and dynamics that might help to explain differential responses to catastrophic situations and extreme environments. Lanzara’s (1983) work on ephemeral organizations in disaster zones provides fresh insight. From his research, Lanzara argues that in reacting to extreme environments, human beings very often do three things. First, they often “*associate* two differing contexts which on the surface share very little similarity” (e.g. using concessions cart as battering ram; freeway exit as refugee shelter). Second, they “*extend* a private daily life activity into the domain of social services (e.g. using ones professional skills, mechanical, organizational, professional, etc. with the relief effort post Katrina;

using ones private boat to rescue people from rooftops).¹⁸ Third, people demonstrate “*an ability to respond* to the enacted environment” (e.g. actually taking the initiative to act in the period of recoil). Lanzara (1983: 77-78) says that it is through being “able to associate, extend, and respond” that a “concrete intervention” is produced. Although Lanzara’s model provides a solid heuristic account for what happens during a disaster and offers researchers a starting point for what to look for in analyzing catastrophic situations, it can be bolstered by addressing a number of other variables that influence an individual’s ability to act. The outline of the basic model is presented first, which is followed by a discussion of each of its elements.

¹⁸ This can be related to Clarke’s (2003: 131) concept of the “role expansion” that often happens during catastrophes, “in which people assume a wider and more varied degree of responsibility for others. So the teacher becomes a nurse, the doctor becomes a rescue worker, the mayor becomes a counselor.”

A MODEL OF SOCIAL ACTION IN EXTREME ENVIRONMENTS

INTERNAL (Self)	AGENTIC	EXTERNAL (World)
Instinct	Technology/tools	Nature
Cognition	Improvisation	Contingencies
Conditioning	Routinized Progress	Social networks
Socialization	Willpower	
	Attitude	

The model comprises three basic dimensions, internal – corresponding to human variations in psycho-social development intrinsic to individual actors, external – which refers to activities and events in the external world over which an individual has no control, and agentic, having to do with social action or agency. The agentic dimension mediates between self and world. One key aspect to this dimension is the ability of human actors in a catastrophe to make use of *technologies or tools* (however primitive) to better cope with their situation. In extreme environments technologies that, in Martin Heidegger’s parsing, are “ready to-hand” (Rouse 1990) can be instrumental to survival and may make all the difference. As an obvious example, consider the difference of being lost in the wilderness with or without a book of matches or on a river without a life-jacket. After the first plane struck the World Trade Center on 9/11, in “Cantor

Fitzgerald's northwest conference room on the 104th floor... people temporarily managed to ward off the smoke and heat by plugging vents with jackets." One of those struck inside, Andrew Rosenblum, telephoned a colleague telling him, "We smashed the computers into the windows to get some air" (Dwyer and Flynn 2005: 138). A few other examples can illustrate the basic point: If Aron Ralston (2004) did not have access to a pocket knife he would not have managed to self-amputate his arm and hike out to safety when his arm was trapped behind a boulder in the Utah desert. If mountaineer Joe Simpson (1994) had not have been carrying a sleeping mat in his backpack, he would have not been able to fashion a make-shift cast for his broken leg which had been injured while rock climbing in Peru, and nor would he have been able to crawl over frozen tundra and boulder fields to return to his base-camp after being left for dead.

Another central variable to action in extreme environments is *improvisation*. As Brinkley (2006: 250) writes: "improvisation [is] the fundamental *modus operandi* in a disaster, flexibility being the true guiding principle." Harrison White (1992) refers to this as the importance of what he calls "ambage" in social organization. Deconstructionists might refer to the necessity of "play" – in the sense of looseness – in social organization (Lemert 2001). The general idea is that actors who manage to make it through extreme environments are more often than not better at making things up as they go along than people who stick to preset plans and are immobilized by change.

Before attending to the final agentic variable, let us address some of the internal variations responsible for differential human action in catastrophic situations. One important one has to do with *willpower*. Kampler writes: "What all survivors have in common is an energy flow from the top down... a spark in the cerebral cortex known as

motivation” (2004: 118). This spark is what keeps the will burning and may stem from a number of sources, including: defiance, vengeance, sympathy, duty, loyalty, honor, responsibility, religious belief, etc. Obviously the concept of will is an important one for theorists and philosophers and a great deal has been written about it. Extreme environments and catastrophic situations are by definition not easy to cope with. It is reasonable to presume that strong-willed people more than others are more likely to act successfully when coping with them.

Another internal variable has to do with one’s instinctual response. Dwyer and Flynn (2005: 64) suggest that in the wake of the 9/11 attacks, people survivors relied on one or some combination of *instincts*, training, and instructions.¹⁹ Instincts are a human being’s first line of defense when assessing or coping with potentially hazardous conditions or events. As Langewiesche writes, in a vivid description of the downing of the *Estonia*, “Survival that night was a very tight race, and savagely simple. People who started early and moved fast had some chance of winning. People who started late or hesitated for any reason had no chance at all. Action paid. Contemplation did not. The mere act of getting dressed was enough to condemn people to death” (Langewiesche 2005: 148). Experienced hikers can sometimes sense when a particularly bad storm is coming in. Before the Tsunami that devastated much of Indonesia in 2005, survivors witnessed animals and birds suddenly moving very quickly inland away from the ocean, trying to find higher ground. People who followed the lead of the animals were given a head start in trying to survive.

¹⁹ This raises the question of whether instincts are socially constructed or if they are more an innately given part of a human being’s makeup.

In recent years, the role of *cognition* in social life (see, e.g. Turner 2002) has become increasingly apparent to sociologists and other social scientists. Variations in capacity for knowledge, intelligence, and neurological functioning should increasingly be built into our models of social action. Kampler states that humans have “a supreme capacity to learn by observation, to store and transmit information using language, and to integrate and apply their knowledge by turning survival skills into customs” (2004: 147). These skills become even more necessary when negotiating extreme environments and catastrophic situations than they are in normal life. Jonathan Pincus’ book, *Base Instincts* (2002) makes a convincing case for social scientists to think more about the neurological explanations for violence and murder. One can easily extend his argument to non-criminal forms of social action. It may indeed be the case that people who manage to adapt better to extreme environments and catastrophic situations have cognitive structures that are “wired” differently than people or are less successful, i.e. their mental chemistry is configured in a way that makes them easier to cope.

Extreme environments and catastrophic situations are obviously very physically demanding and require much from bodies of the actors involved. It should come as no surprise that people who are physically fit are, *ceteris paribus*, more likely to endure situations of social breakdown compared to those whose bodies are not in such good shape. As Kampler remarks, when facing extreme environments, the body should be “finely tuned, fully adapted, and highly motivated” (2004: 226). *Physical conditioning* and strength are key to survival. Langewiesche (2005: 107) reports from the downing of the *Estonia*, “Of fifteen children under the age of 15, only one survived; and of 167 adults age sixty-five and older, every woman and all but two men had died.” When the

World Trade Center was attacked and its inhabitants had to flee the building, many people had to descend multiple flights of stairs to escape. Many who were ill conditioned or out of shape, simply could not make the journey and died when the towers collapsed. It makes sense that an individual suffering from diabetes, heart palpitations, or who is morbidly obese, is not going to handle an emergency airplane landing as easily as someone who does not suffer from these conditions. Many other examples drawn from the empirical research of catastrophes (e.g. Klinenberg 2003) bear this out and confirm that populations are differentially vulnerable to hazards and disaster.

As was mentioned in the quote by Dwyer and Flynn, above, another variable that can help us better understand action in extreme environments is the concept of *socialization*, in this case, preparatory training (either formal or informal) for coping with disasters and catastrophes. In the case of Hurricane Katrina, for example, many of the people who ended up making the most robust interventions and in some cases taking on more less institutionalized leadership roles in the community had previous training which influenced their propensity to act. New Orleans personality and radio announcer Garland Robinette, who remained on the air almost around the clock during the hurricane, notes that his strength for enduring that catastrophe came from his experience serving in Vietnam. As he stated,

Knowing people were dying and hearing stories and talking to people who were in the process of dying...That reminded me a lot of Vietnam. When the people came out with me from our studio to the flooded cars, they were hysterical or shocked. I felt extremely calm. Vietnam...I think it was thirteen months of combat, and if you lose control, if you get emotional or you get afraid or too brave

or just don't stay calm and think and be relaxed, you're going to die. So Vietnam was a gigantic plus...I have been to a bad place. I had that bad place to go back to, that helped me remain calm enough to get the job done. (Brinkley 2006: 296). Another person for whom socialization with disaster also played a significant role in the Hurricane Katrina tragedy was New Orleans resident Rick Matthieu, leader of a group of rescuers known as the "Soul Patrol" and who "saved at least five hundred New Orleaninians" (Brinkley 2006: 308). Brinkley reports, "What enabled Matthieu to act so efficiently was his childhood experience with Hurricane Betsy. He had been piloting boats since he was seven years old" (Brinkley 2006: 308). As Matthieu put it: "With my dad during Betsy, we saved lots of folks...I prepared on Friday night before Katrina because my dad had prepared in the same way for Betsy" (Brinkley 2008: 308).

As we know from the Thomas Theorem, the way situations are defined can have a dramatic impact on their outcome. Likewise, people's *attitudes* can affect their experiences of different situations. Although there is now a stigma associated with smoking cigarettes, at one point in time they were standard issue in the military partly because they were thought to improve one's attitude or outlook. It seems peculiar to us today, but Rousmaniere (2002: 193) writes that in the 1940s, "smoking was crucial to survival...Smoking was long known to relieve stress and provide boosts of energy. Few events were more comforting and symbolic of human connection than a buddy's offer of a cigarette or a match or the glimpse of a tiny bit of burning ash across a field or ship's deck."²⁰ Beck Weathers, the Texas doctor left to die on Mt. Everest in John Kracauer's

²⁰ It would be interesting to speculate on what, if anything, has taken the cigarette's place as a structurally equivalent aid to psychological recovery during catastrophic situations. What gap does this create in human relationships?

(1999) book *Into thin Air* illustrates very well the importance of having a positive attitude on surviving extreme environments.

An important variable external to individuals facing catastrophic situations are one's *social networks*. This is what Rousmaniere describes as "the power of personal connection to steer people through disaster" (2002: xii). The extent of one's social ties can actually make "the difference between life and death" Clarke (2006: 133). The better developed one's network of social ties, the more people there are to offer assistance, and the more likely it is that one will act effectively. Without Simon Yates being on the mountain in Peru with him, there is no way that Joe Simpson (1994) would have survived his ordeal. When British United Nations Philip Ashby (2003) was trying to escape rebels in Sierra Leone he had to rely upon the kindness of a non-rebel farmer who shuttled him and his men to safety; without this contact, he would have perished. The Underground Railroad from the American context offers another example of social networks aiding people in extreme situations.

One way that social actors can help themselves in extreme environments and catastrophic situations is through what may be described as *routinized action*. As Wiseman writes: "When facing a disaster it is easy to let yourself go, to collapse and be consumed in self-pity. But it is no use giving up or burying your head in the sand, and hoping that this is a bad dream that will soon pass. It won't, and with that kind of attitude it will rapidly become much worse. Only positive action can save you" (Wiseman 2004: 38). Doing something instead of nothing is an important theme in Ghinsberg's 2006 account of being trapped in the Bolivian jungle, on the Shackleton expedition (Alexander 2000: 101) mentioned earlier, and in accounts given by Simpson (1993; 2004), Yates

(2001) and Ralston (2004). To survive is to take things just one step at a time, to focus on small achievable goals which aggregate into larger success. Mitchell (1984: 17), for example, notes that the “joy of mountaineering” is to be found in the “moment-by-moment accomplishments” and “small successes along the way – picking a better route for the next few feet above, completing a difficult move, safely reaching the next ledge.”

Our model of action in extreme environments would not be complete without a discussion of *luck*. As Clarke 2006: 69 puts it, “We owe more to lady luck than we realize.” Luck, also known as contingency (Rorty 1989), serendipity, randomness, and so on, plays a significant role in all aspects of social life, extreme environments and catastrophic situations included. The opening minutes of the film *Magnolia* does well to illustrate just how much of an impact simply being lucky plays in our everyday lives. It is difficult to theorize issues of luck or randomness, in that it often appears as an intervention out of the blue, so to speak, which many attribute to God’s will or acts of fate or fortune. Needless to say, people who have lived through catastrophes know the role of randomness in their survival. If Aron Ralston (2004) was not found by a couple of Dutch hikers after he had repelled down a 100 ft. rock face and jogged two miles in the desert, it is unlikely that he would have lived to tell his tale. Joe Simpson’s (2004) book, *Touching the Void*, is filled with many examples of lucky chances. If Simpson’s had failed him just at one point along the way, the whole social equation responsible for his ultimate survival would have fall to pieces.

The opposite of luck is, of course, bad luck, which in extreme environments takes the form of additional impacts by other contingencies of nature, a cascading chain of events completely outside of the actor’s social control. As Hazelrigg points out (1995),

the experience of domination means precisely domination by nature. Social actors cannot withstand nature's bombardments forever. If conditions continue to deteriorate and some of the other variables in this model are muted or absent, the individuals involved will eventually fade from the scene.

CONCLUSION

Foucault once said, in reference to his investigations of power and knowledge, that it is important to persistently ask, "Who speaks?" This essay considers, in any extreme environment or catastrophic event, "Who acts?" The focus has been on how people manage to successfully respond to sudden, extraordinary changes in the anatomical social facts of their immediate environment. It suggests a model of some of the resources that people draw upon in these situations. As Rousmaniere (2002: 198) puts it, in the face of crisis, "a few people are calm and rational, a few others are irrational and even hysterical, [but] most are simply stunned." This work has tried to provide some insight into how "calm and rational" react to major threats facing their ecological milieu.²¹ To the extent that contemporary society becomes even more dystopian than it is presently (see Gray 2000) and the world becomes even more extreme, catastrophic, and turbulent, this work may help sociologists, social theorists and other social observers to better come to terms with how individuals act under catastrophic conditions. Actors facing such environments

²¹ The more explicitly cultural or meaning-related aspects to this process, has obviously not been the focus of this essay and it is something that other researchers would do well to consider. As Oliver-Smith (2002: 41) notes, extreme events "challenge people's worldviews with profound existential questions for which meanings consistent with circumstances must be elaborated."

can be conceptualized as types of edge workers (Lyng 2005). They have just stepped into a major breach, are no longer in control of their lives, and abruptly come to the realization that they must act (and do so effectively) in order to avoid disaster.

In contemporary society, the gap between normality and chaos, safety and disaster, rationality and irrationality, indeed between life and death itself, is becoming increasingly tenuous and difficult to discern. Under conditions of globalization (Barber 1993; Friedman 2005) the world rapidly coming together and blowing apart at the same time. Due to the nature of risks that are prevalent today, the world is seemingly a much riskier place (Beck 1984) than at any time in recent memory. Natural and social environments are changing in dramatic and peculiar ways and it is impossible to predict the outcome. As Hazelrigg (1989: 41) asks us, rhetorically, amidst all the hazards of our contemporary society and world, “Just where do we find safe territory today?” The answer, of course, is nowhere. The 9/11 attacks and Hurricane Katrina illustrate vividly that no one is immune from disaster and that risk is something with which all of us must be concerned. Avian flu and swine flu outbreaks, ricin in the post offices, not to mention the regular coterie of accidents, toxic spills, gas leaks, floods, tornadoes, wildfires, accidents and so on, constantly remind us that the postmodern world is no tea-party but instead rife with danger. Regardless of where or who you are, one’s life can be ended or upended in a heartbeat. As the French radicals proclaimed during the events of May-June 1968: “Under the pavement: beach!” The wilderness is indeed never too far away, and because of this, as Wiseman points out us, “the need for survival training has never been greater. Not only are we indulging in more exotic holidays, challenging expeditions, and foreign business ventures” (Wiseman 2004: 8), but there is the continuing very real threat

from radical Islamist movements (Sageman 2003) for whom 9/11 marks the beginning of a new struggle against the West. Sociologists and social theorists also must do their part to come to terms with these developments. They need to devote more time and energy to studying individuals who in their engagement with anatomical social facts, as individuals, or as members of social groups, managed to step beyond the roles society had placed upon them and/or had internalized, and engage in robust and positive social action.

Social research on catastrophe needs to focus not just on the structural side of social reality (e.g. the causes and all the utter devastation), but also on issues of human agency.

In a Meadian sense, the analytic attention should be on social actors in catastrophes going beyond the “me” to become an “I.” Through this process identity (White 1992) is developed in situations of conflict and chaos. It is hoped that further empirical attention paid to future catastrophes of this kind and the agentic responses of the actors involved, will elaborate some of these ideas in greater detail.

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