PONTIFICIA
UNIVERSIDAD
CATÓLICA
DE CHILE

CUADERNOS ISUC

RETHINKING DISASTERS AS EVENTS

MAGDALENA GIL

VOL 2

NUM 2

Cuadernos ISUC
Working papers series

Publicado por el Instituto de Sociología de la Pontificia Universidad Católica de Chile, Av. Vicuña Mackenna 4860, Campus San Joaquín, Macul, Santiago 7820436.

Rethinking Disasters as Events

Magdalena Gil, Institute of Sociology P. Universidad Católica de Chile. School of Engineering. P. Universidad Católica de Chile. National Research Center for Integrated Natural Disaster Research, CIGIDEN. CONICYT/FONDAP/15110017.

RESUMEN: Tendencias actuales en la Sociología de Desastres han desafiado nociones clásicas que ven los desastres como eventos extraordinarios, reemplazándola por una que los entiende como algo normal, común, y dependiente de las fuerzas sociales ya existentes. Esta perspectiva constructivista ha enriquecido el campo enormemente, haciéndolo más sociológico. Sin embargo, ha fallado en relacionar los desastres con la posibilidad de cambio social. Este artículo ahonda en esta problemática y se pregunta cómo podemos aproximarnos a ella de una manera fructífera, tomando en cuenta los efectos de los desastres en el largo plazo. Se argumenta que para ello no necesitamos reemplazar la concepción de desastre como evento, sino que en su lugar debemos repensar qué es lo que entendemos por evento. Para lograr esto, este artículo se acerca al campo de la Sociología Histórica y su noción de evento como aquella secuencia de ocurrencias que produce transformaciones sociales. Bajo esta noción, los eventos no son considerados como shocks externos sino, por el contrario, son vistos como "eventuando" del pasado. Sin embargo, se entiende también que pueden tener grandes consecuencias a futuro. A modo de conclusión, se postula que solo considerando los desastres como eventos situados es que podemos analizar sus efectos en el largo plazo y revelarlos como momentos claves para el cambio social.

PALABRAS CLAVE

- Desastres
- Sociología histórica
- Eventos
- Riesgo

ABSTRACT: Recent trends in the Sociology of Disaster have challenged classical notions of disasters as extraordinary events, replacing this view with one that sees disasters as normal, common occurrences that depend on preexisting social forces. In this paper I show that this constructivist perspective has enriched the field enormously, making it more sociological. However, it has also failed to relate disasters with the possibility of social change. Therefore, I ask how we can approach this topic in a fruitful way; one that takes into account disasters´ effects in the long term. For this, I argue, we do not need to replace the notion of disasters as events; instead, we need to change what we understand as an event. To do so, I reach to Historical Sociology and its notion of events as a sequence of occurrences that produces social transformations. Under this view, events are not considered as external shocks but, on the contrary, they are understood as "eventuating" from past conditions. However, this definition also allows us to understand that disasters can have important consequences for the future. I will conclude that it is only by considering disasters as situated events that we can analyze their effects in the long term and reveal them as key moments for social change.

KEY WORDS

- Disasters
- Historical Sociology
- Events
- Risk

ACKNOWLEDGEMENTS

I am most grateful to Karen Barkey and Diane Vaughan for their thoughtful comments during the process of writing of this paper.

I. Introducción

The origin of the term disaster is Greek, literally meaning that an event was 'ill-starred' (pejorative prefix δυσ- (dus-) "bad" + ἀστήρ (aster) "star"). This is, it suggests that when something bad happens it is a punishment of the gods. Modern views of disaster have preserved some of this aura of misfortune, including pioneer research in Disaster Studies. For the first sociologists in the field, disasters were defined as a rapid, unexpected and shocking event that caused widespread destruction (Fritz 1961). In other words, disasters were understood as originating outside of social life, very much like a sentence from the Olympus. But just as sociology has devoted itself to revealing the social roots of those gods, disasters have been unmasked as a socially constructed phenomenon. Today, we understand that catastrophes are "foreseeable manifestations of the larger forces that shape society" (Tierney 2007, p. 509), reflecting the characteristics of the community in which they occur and dependent on decisions made by humans. Even when the onset agent is natural, the scope, depth and character of the disaster in itself will depend on the vulnerability (physical and social) of the communities affected. [1]

These constructivist notions have enriched the field of disaster studies enormously, making it more sociological. However, a drawback of the constructivist approach is that it has failed, for the most part, to relate disasters with the possibility of social change. By focusing in the social roots of disaster, sociology has encouraged an understanding of them as "normal, common occurrences that reflect the characteristics of the societies in which they occur" (Tierney 2007, p. 518). However, for those of us who have witnessed massive catastrophic disasters it is painfully clear that they are, in fact, extraordinary. Sometimes even the end of the world as we knew it. When disasters do include massive physical destruction, it is evident that at least the infrastructure available has changed, as well as the environment for social life to develop normally. And even when disasters do not destroy infrastructure, the sudden death of 3,000 people by a heat wave certainly leaves a mark in the communities that were most affected. Summarizing, I argue that by focusing on disasters as the consequence of certain social circumstances and decisions, the constructivist approach has set aside the question on how circumstances might change because of disaster.

Consequently, in this article I will engage in the discussion of how we can study disasters and their relationship with social change in a fruitful way. I will argue that, even when classical analyses of disasters as events have failed to consider the social conditions and processes that shape disasters, we do not need to reject the idea of events to include this. On the contrary, it is our understanding of *what is an event* that should be reformed and not our characterization of catastrophes as such. To do so, I will suggest following William Sewell's proposition to see events as "sequences of occurrences that result in transformations of structures" (Sewell 2005, p. 227). As I will show next, defining disasters as events in this sense does not mean a retreat from constructivist notions, on the contrary, it recognizes its constructive nature and, at the same time, it emphasizes their "situated" occurrence and their potential for social change.

[1] *In this paper I use the terms "disaster" and "catastrophe" as interchangeable. However, there might be reasons to differentiate them. See: Quarantelli 2006.*

II. What do we study when we study disasters?

Disaster studies became an established field after the 1950s, growing in alignment with the concerns of the American government and military during the Cold War. Consequently, their research questions were in the lines of: what would people do in case of a nuclear attack? How should we respond? (Fritz 1961). In this context, the term disaster itself was taken very much as given. According to Enrico Quarantelli and Richard Dynes (1977) –the founders of the field- by the 1970s the term had gone under a number of reformulation efforts but almost all definitions followed the one given by Charles E. Fritz a decade earlier:

> " [Disaster is] an event concentrated in time and space, in which a society, or a relatively self-sufficient subdivision of a society, undergoes severe danger and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society is prevented" (Fritz 1961, p. 655).[2]

This definition has been highly influential, even when virtually every aspect of it has been questioned. For the most part, it is a definition that captures common views on disasters and does not problematize the issue. It understands disasters as events "concentrated in time and space," and highlights physical losses as an essential aspect of them. Because of this, it is a definition that fails to comprehend the social contexts that shape these events before they happen; in other words, it assumes that disasters originate outside of the social world. Accordingly, pioneer disaster research was focused particularly around the topic of how masses and communities react during and immediately after disasters, with the objective of preventing or alleviating the stress and suffering caused by these crises. In fact, the first annual review of the field was titled *Response to Social Crisis and Disaster* (Quarantelli and Dynes, 1977), and considered the objective of the field to study collective stress situations. Overall, the views and methods developed by the first sociological researchers in disasters focused on human, communitarian and organizational adjustments to external shocks, not addressing the social causes and consequences of such events.

Nonetheless, for sociologists in the field this was identified as problematic early on. The second annual review on the topic, written by G.A Kreps in 1984, argued that disasters originate in society; in other words, that disasters are dependent on decisions made by humans (Kreps 1984). Most research presented by Kreps in his review did not follow this notion; however, the field reacted in favor of emancipating from physical notions of disasters in order to emphasize their social features (See: Quarantelli 1998; Tierney 1999; Kreps 1998; Dombrowsky 1995). In practice, this meant a new approach to disaster research from the perspective of the Sociology of Risk (Clarke and Short 1993). If before disasters were seen as problems where people are the unintended victims of destructive events beyond ordinary human control, under the framework of risk the problem is reshaped into one in which human actions and social, economic and political conditions are responsible for creating disasters (Comfort 2005). In the words of disaster sociologist Kathleen Tierney, "while other disciplines may merely assume that ´risk happens´ sociologists know better than that. Earthquakes are acts of nature, but earthquakes disasters –the death, injuries, economic losses, and social disruption that result when the earth trembles- are social in origin" (Tierney 1999, p. 26).

The advancement of a Sociology of Risk in the field of Disaster Studies was accompanied by the introduction of the idea of vulnerability: although different groups may share a similar exposure to a natural disaster, the consequences for each group may differ because they have diverging capacities to handle the impact. This notion was presented by Hewitt in his influential book *Interpretations of Calamity* (Hewitt 1983). Later, the idea of social vulnerability was developed further by Wisner et al. (1994) who took a truly social perspective on it, arguing that disasters are a kind of negative externality of larger political and economic trends. The topic was further developed by Mileti in his book *Disasters by Design* (1999), where he argued that unsustainable practices in development predict disastrous consequences. Therefore, disasters happen as direct consequences of bad planning and decision making. They can no longer be seen as a punishment of the gods, instead they constitute a crime (Mileti 1999). More currently, one notable example of disaster studies following the constructivist paradigm is Klinenberg's (2002) study of Chicago's heat wave. In his book *Heat*

[2] *In all honesty, this definition is not entirely Fritz's. He adapted it from Robert Endleman´s "An approach to the study of disasters", a paper from the National Opinion Research Center, written in 1952 but never officially published.*

Wave, Klinenberg (2002) brings to our attention an invisible disaster, but also explains how the disaster exposed the disparities, vulnerabilities and effects of isolation in communities. Most likely, classical approaches to disasters would have failed to appreciate the insights these researchers presented. Recently, and particularly in light of Hurricane Katrina, these constructivist notions have taken hold in the research done by sociologists in the field. There is an ample consensus that the hurricane in itself was a natural phenomenon, but it was the neglect of the embankment, the destruction of the surrounding wetlands and bad decisions about evacuation that caused the disaster per se. This is, the catastrophe was not natural at all; rather it was the consequence of the state's poor decisions (See: Brunsma et.all 2007; Squires & Hartman 2006).

Finally, it is important to mention that much of the contemporary research done in disasters has come from the Sociology of Organizations. Early on, Turner (1978) observed the manner in which organizational structures are patterned to cope with unknown events, such as disasters. He concludes that disasters are a collapse of precautions that had hitherto been accepted as adequate, which means that disasters are in the making long before they happen. In his book, *Man-Made Disasters* (1978) he expands on this issue and shows that organizational failure does not arise randomly or by accident, but rather as the expected consequence of certain decisions. Similarly, in *Normal Accidents Perrow* (1984) analyzed the social side of technological risk. He refers to a certain kind of accidents as normal, since the system's characteristics make it inherently vulnerable to such accidents. A normal accident occurs in a system with so many parts (complex) that it is likely that something is wrong with at least one of those parts at any given time. A well-designed complex system will include redundancy. However, unexpected interactions may lead to failure. Diane Vaughan (1997) has discussed this in a more applied manner, studying the Challenger launch decision and presenting disasters as one facet of the "dark side of organizations." She shows how NASA's scientists and engineers failed to catch the high pitch of the serious signals when something was wrong because they were very good at rapidly integrating and acting on huge amounts of information. Many of the aspects of the technological disasters' framework have been useful for the study of disasters in general, especially the ones focused on organizational decisions. We can appreciate the relevance of this in the studies on Katrina that have endeavored to show the institutional, organizational and cognitive factors that produced the catastrophe (Brunsma, et all. 2007).

Overall, it is clear that the risk perspective has enriched the field of Disaster Studies enormously by making it more sociological. In the case of disasters triggered by natural phenomena, this vision has permitted to untangle the analysis of the onset agent from disasters themselves, placing the disaster as the dependent variable. In a more practical manner, it has prompted the development of useful frameworks of vulnerability and hazards; improving the capacity for prevention. Also, disasters that are not marked by a sudden onset, and sometimes not even by physical destruction, (such as epidemics and heat waves) have only been identified as disasters after this new approach has been developed. Finally, constructivist notions have also helped sociology to link the study of disasters with core sociological questions such as gender, class and race (See for example: Peacock 1997; Enearson and Morrow 1998; Bolin et all. 1998; Fothergill 2004). In conclusion, the notion that disasters are socially constructed and dependent on society's decisions is crucial for understanding disasters better. It shows us that catastrophes are not external phenomena but rather the product of society's decisions. In other words, today we understand that nature makes the earth shake, but society makes catastrophes.

Yet, as I mentioned before, the constructivist approach has its own drawbacks. For the most part, it has not engaged in the question of social change after disasters, especially not in the long term. For the Sociology of Disasters, change following catastrophe has usually been taken for granted; it is not a controversial idea at all, but it has not been systematically studied. A focus on the long term consequences of catastrophes has seldom been addressed; in fact, Annual Reviews on disasters have only once included a section on social change. After finding only a few articles that covered the topic, the author, G.A Kreps, concluded that:

> "we know far too little about the process of recovery, but recent studies in developing societies are proving useful leads. They suggest that disasters must be interpreted not only in terms of immediate damage and disruption but also of the degree in which

[3] *A search in Sociological Abstracts for sociological work on disasters since 2007 to 2012 shows that things have not changed very much. Less than 1% of research that it is labeled as "disaster studies" is also labeled under the subject "social change." The same can be said about the labels "state role", "politics", "government agencies" or "markets." Most commonly, research in disaster studies is related with the terms "group interactions" (15%), "risk" (14%), "disaster relief" (9%), "vulnerability" (8%) and "disaster preparedness" (8%).*

they change already existing trends" (Kreps 1984). [3]

Case studies made by historians have shown results in these lines. Two of the most notable examples are L. Perez´s history of hurricanes in Cuba (Perez 2001) and G. Clancey´s account of earthquake history in Japan (Clancey 2006). In *Winds of Change*, Perez argues that hurricanes should be highlighted as a key factor in the development of Cuba. He shows that the storms played a decisive role in shaping the economy, the culture, and the political economy of the island. Among the most relevant changes that he names are land tenure reforms, labor organization, and the modification of systems of production. Similarly, Clancey has approached the case of Japan, focusing on how its seismic history has defined the country´s relationship with the West. In *Earthquake Nation*, he argues that earthquakes have been both Japan´s biggest challenge for nation building and a source for it. This is exemplified by the conflict between "Western" and "Japanese" architecture. There are other cases to learn from. One of the most known cases is the aftermath of the Lisbon 1755 earthquake, where the state's concern with the economic and political consequences of the earthquake became central to the development of modern mentality in Europe. The state assumed for the first time a collective responsibility for the consequences of the earthquake (Dynes 2000). More recently, M.A. Healey shows in *The Ruins of the New Argentina* how it took an earthquake to launch future President Juan Domingo Perón to the national political scene. He argues that Perón was an obscure colonel in a recently installed military regime when he organized the relief campaign and rapidly commissioned plans to rebuild the city of San Juan. Perón would gain exposure thanks to his role in earthquake relief and reconstruction, and soon found a movement, reached the presidency, and transformed the politics and social structure of the country. By exploring the process of rebuilding and the complex social processes underneath, Healey shows how this played a crucial role in forging, testing, and ultimately limiting the Peronist project that transformed Argentina (Healey 2011). Also, the 1985 earthquake in Mexico City has gained lots of attention as an economic and political turning point due to its subsequent social unrest, challenging decades of PRI´s de facto monopoly of the political arena (Olson and Gawronski 2003; Walker 2009). And lately, the sociology of hurricane Katrina has brought new light to Disaster Studies, with several projects studying political and policy change after the event, even if in this case changes are at city or regional level (Brunsma, Overfelt & Picou 2007; Squires and Hartman 2006).

Overall, it is clear that disasters affect society in a variety of levels, even if the mechanisms by which these happen are not completely clear. Because they are "all-encompassing occurrences" (Oliver-Smith and Hoffman 1999), sweeping across every aspect of social life, catastrophes are moments when efforts to "go back to normal" rarely mean exactly that. Instead, catastrophes present themselves as a window of opportunity to social change. In other words, catastrophes are usually true events in the political realm, marking a before and after for many political institutions and sometimes for whole institutional regimes.

III. Catastrophes as Events

As I showed previously, outside of the Sociology of Disasters, there are other areas of discovery that might prove more useful in understanding catastrophes' effects in the long term. To start, we need to position catastrophes in a process, in order to understand continuity and change. To achieve this, I argue that we should reach back to historical notions of structure and events. For historical sociologists it should be obvious that earthquakes or tsunamis constitute 'big events;' however, constructivist notions in the Sociology of Disasters have openly rejected this assessment in full force. Hewitt (1983) criticizes the idea of disasters as events as a "convenient fiction" that operates primarily to bolster institutions concerned with the control of nature and human societies. Dombrowsky (1995) complains that the notion of event freezes a complex social context into a static actor or a "thing" and does not adequately express its dynamic complexity. More recently, Tierney (2007) criticized the "event-based approach" claiming that it separates disasters from their social contexts. In her words:

> "while explicitly acknowledging the societal component of disasters and emphasizing that disasters are social rather than physical occurrences, the classic perspective still

> conveys the notion that disasters are events -and events that are recognizable primarily by virtue of their relatively sudden onset and the casualties, damage and disruption they cause." (Tierney 2007, p. 509)

Disasters, the argument goes, are intrinsic to social life, and the idea of them as unexpected and extraordinary is misleading. Thus, the notion of event has been rejected to highlight that disasters are socially constructed (and events supposedly are not) as well as being the consequence of pre-disaster social structure (again, events are understood as negating this).

Instead of "events," new constructivist notions have encouraged the study of hazards, risks and vulnerability. Accordingly, definitions of disasters have become more diffuse, both in terms of time (*e.g.*, famines) and space (*e.g.*, global warming). I have even encountered the term "permanent disaster" when confronting epidemics (Crimp 1992). Thus, new conceptions of disaster are not quite distinguishable from the notion of "social problem," even if they are accepted as "non-routine social problems" (Kreps and Drabek 1996). From a Sociology of Risk perspective, social problems and disasters have many similar features; mainly that they are both something society wants to avoid. But if we are looking to study disasters themselves, together with their subsequent consequences, these diffuse notions are not helpful at all. For the Sociology of Risk disasters have become epiphenomena, secondary or byproduct to other more important phenomena, this being hazards (Quarantelli 2005). The problem is not what words to use but rather that disasters are different from hazards. Both phenomena deserve research, and unless we manage to completely avoid disasters we are not enriching the field by leaving their study aside.

I will argue that, contrary to recent trends, we need to take disasters seriously as a theoretical category of its own in order to recognize their power over history. To do so we need to rescue the notion of disasters as events. There is a reason why practically all definitions of disasters have assumed they are somehow extra-ordinary; they can be identified as distinct from daily life, even if they reflect the same social conditions than those of daily life. This exceptionality allows us to perceive catastrophes as events and differentiate them from ordinary social problems: they are focused occasions, even if not objectively delimited. This does not mean that catastrophes are unrelated to "the larger forces that shape society." It is true that classical analyses of disasters as events failed to recognize this; but we do not need to reject the idea of event in order to include this aspect. It is our understanding of what is an event that should be revisited, and for this we need to examine Historical Sociology.

Philip Abrams was the first to claim the event as a useful category for sociology. Abrams argued that it is clear that the idea of a process is arrived at only by way of the idea of events, therefore sociologists interested in processes and structure should not leave them aside (Abrams 1982). For him "an event is a portentous outcome; it is a transformation device between past and future. It has eventuated from the past and it signifies for the future" (Abrams 1982, p. 191). Sewell (2005), who is probably the best known defender of the event in sociology, argues that events are not an objective reality, but an observed reality that depends on cultural schemes (he follows anthropologist Sahlins (1976) in this). And finally Abbot, in a recent defense of the event, also argues that events are abstractions, opposing its definition to occurrences, the actual happenings that we use as reference points to indicate that an event has taken place (Abbot 2001, p. 8). In order to recover the notion of events, then, we do not have to go back to classic preconceptions of disasters. On the contrary, events are a notion that considers disasters´ social roots.

To approach catastrophes as events I rely especially on the ideas of historical sociologist William Sewell, who defines events as "sequences of occurrences that result in transformations of structures" (Sewell 2005, p. 227). This means that there is a whole sequence of occurrences that constitutes the *disaster-as-an-event* worthy of social science inquiry. However, not any kind of occurrence may constitute an event, but only those that significantly transform social structures (Sewell 2005, p. 100). Events studied by those who follow this eventful sociology approach have rarely been disasters but, instead, are typically revolutions and political unrest.[4] However, the potential for the study of disasters for this type of research is clear. Interestingly, the very first sociologists to study disasters saw them exactly like this. Samuel Prince's study on the Halifax catastrophe, aptly called *Catastrophe and Social Change*, describes a ship

[4] *I have not found a single study on eventful sociology that specifically deals with a natural or technological disaster, the closest case is Wagner-Pacifici's study on 9/11.*

explosion in the Canadian town of Halifax, but also provides a detailed account of the recovery and changes after the event. He argues that people are intrinsically conservative and reluctant to change, but that disaster creates a "state of fluidity" that opens social life for change. He concludes that catastrophe always means social change, even if there is not always progress (Prince 1920, p. 21). Secondly, Lowell Carr published a pioneer paper entitled "Disaster and the Sequence-Pattern Concept of Social Change" (Carr 1932) where he argued that a disaster "is not a single event or even a single kind of event: it is a series of events, linked one with another (…)", and thus connected disasters directly to social change, arguing that: "social change is not an episode, a protrusion, so to speak; it is a series, a cycle of events no one of which is competent to represent the whole" (Carr 1932, p. 215-216). Unfortunately, although mentioned now and then as pioneers of the field, no one has built on Prince or Carr's ideas on disaster. As usually happens with scientific fields, certain ideas and frameworks fail to develop due to the larger social context, and in this case it was the World Wars and the Cold War that set the direction of the field on a different path.[5]

Going back to Sewell and Sahlins, there are several points of their studies of eventful sociology that are of great importance for understanding catastrophes as events. First, we need to re-think the relationship between events and the recurrent patterned arrangements that sociology calls structure. Sahlins critiques that "for a certain anthropology, as for a certain history, it seemed that 'event' and 'structure' could not occupy the same epistemological space. The event was conceived as anti-structural, the structure as nullifying the event" (Sahlins (1976) in Sewell 2005: 199). This critique could be directed at Disaster Studies without changing a comma; turning from disasters to structure (where the "larger forces that shape society" rest) has made us blind to disasters themselves. But for Sewell, as for Sahlins and Abrams, each category implies and requires the other; events are transformations of structure, therefore they presuppose structure. Because events are not just any occurrences but rather the specific type of occurrence (or sequence of occurrences) that produces change, they can be easily recognized as those occurrences that violate the expectations generated by structure. Moreover, their consequences can only be interpreted within the terms of the structures in place. If this is so, it is true that structures define events, that is, that disasters' causes are within society. But, it is also true that events have the power to re-define and reshape such structures (Sewell 2005, p. 200). In the beautiful words of Phillip Abrams, "an event is a moment of becoming at which action and structure meet. The designation of a happening as an event indicates that the meeting has been judged peculiarly forceful." (Abrams 1982, p. 192).

Second, Sewell's eventful temporality assumes that events are normally path-dependent, that what has happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point in time. However, events must be assumed to be capable of changing not only the balance of causal forces in operation, but also the very logic informing how consequences follow from occurrences; "because the causalities that operate in social relations depend at least in part on the contents and relations of cultural categories, events have the power to transform social causality" (Sewell 2005, p. 101). It is also fruitful to understand the relationship between catastrophic events and path dependence. Because of catastrophe, new options may become cheaper or easier due to destruction of previous infrastructure or sources of power, allowing decisions or negotiations to be made from scratch. Consequently, it has been argued that disasters should be seen as precipitants of critical junctures, loosely defined as a period of significant change that leads to new institutional legacies or sets the entire political system onto a new trajectory (See: Olson & Gawronski 2003).

Third, Sewell points out that one of the key features of events is that they are usually unexpected. Change, says Sewell, tends to be clustered into relatively intense bursts. Events begin with a rupture of some kind, a "surprising break with routine practice" (Sewell 2005, p. 226). Risk sociology and its emphasis on disasters as a kind of social problem has failed to see this. It is precisely the fact that catastrophes violate the expectations of structure that makes disasters so empowered to change it. Most happenings, even if strange, can be absorbed by the existing structure and, rather than change it, they simply reproduce the structure in place. They can be explained as exceptions, repressed or simply disregarded, in which cases they reproduce structure and should not be considered events. When this cannot be done, these

[5] *Sociological research on disasters only took force after the 1950s, when the US Military started to fund it. Prince's argument that suffering was the medium for progress because it was inspired by the suffering of Christ may have also contributed to the lack of interest in his work. In the case of Carr, he was a systemic (System's theory) and we all know what happened to those views in American sociology (they went nowhere).*

happenings (or sequences of happenings) result in durable transformations of structure and become events. In these cases, events are also interpreted in terms of the previous structure, but they are so traumatic that by doing so they change the structure that provided the initial context for the occurrence. Therefore, moments of accelerated change are initiated and carried forward by historical events. Sometimes the events are culminations of processes long under way, but they typically do more than just carry gradual and cumulative social change to its end. They tend to transform social relations in ways that could not fully be predicted from the gradual changes before them. Therefore, if we want to understand a disaster as an event, we need to ask whether the unexpected rupture generated, accelerated or redirected structural change or not (See: Sewell 1996; 2005).

Of course, we must take into account that disasters may effect changes in some spheres of social life and not others. Here Sewell's view on events is also useful because he believes it is important to recognize structures as multiple. All happenings have the potential to reproduce and change structure, even at the same time. Multiple notions of structure allow us to follow the areas in which a disaster is more likely to produce change. Otherwise, it would be difficult to determine when a happening should be regarded as an event, rather than simply as an incident that reproduced existing structure. For example, an earthquake can reaffirm notions of gender, and nonetheless change patterns of class by destroying private property. Studies on eventful sociology have concentrated on tracing changes in symbolic and cultural schemas and modes of power, but we can also use this approach to understand changes in other areas as well, such as the political arena and institutions such as the state.

In fact, assuming that events are normally path-dependent does not mean that causal structures are uniform. Radical contingency seems essential for an eventful view. "Contingent, unexpected, and inherently unpredictable events, this view assumes, can undo or alter the most apparently durable trends of history." (Sewell 2005, p. 102). However, contingency should not be confused with randomness. Contingency simply means that something is neither impossible nor necessary; it means accepting that things could have been different. To assume contingency does not mean that everything is always changing; on the contrary, even the most radical ruptures are interlaced with remarkable continuities. And structures that are transformed by events are always a transformation of previous structures (Sewell 2005, p. 103). But still, research shows that change is contingent on decisions and choices selected during these unexpected events (See: Perez 2001; Clancey 2006).

Closing on this issue, it is by looking to historical sociology that disaster studies can enrich our understanding of catastrophes' relationship with social change. To focus on this aspect of catastrophe we need to recover the concept of disasters as events. Understanding disasters as events means it is necessary to place disasters in time, which can greatly enrich our understanding of how disasters are related to broader social processes.

IV. The Role of Physical Destruction

A final important insight of Sewell's theory for the study of disasters is the importance of the material world. One of the critiques that Sewell offers to Shalins' theory of eventful change is that it does not treat material resources as part of the structure. For Sewell, resources are both human and nonhuman, virtual (symbolic) and non-virtual, even if their condition as resources capable of producing and reproducing structure is not wholly intrinsic in their material existence. "Nonhuman resources have a material existence that is not reducible to rules of schemas, but the activation of material things as resources, the determination of their value and social power is dependent on the cultural schemas that inform their social use" (Sewell 2005, p. 135). Here Sewell is referring to the possibilities of, for example, a rock to become a talisman, therefore becoming an object of power. But I will argue that the same can be said of the environment (both natural and built) in which a community lives. Material things are resources for notions of race, gender, class, and power; including buildings, landmarks, urban spaces, etc. (Gieryn 2000). Sewell argues that the transformation of cultural schemas results from unexpected changes of resources (Sewell 2005, p. 217), which means that

structural change does not appear on a purely cultural level, but rather that it is inextricably wrapped up with the marking, use, and dynamics of resources. Resources are dragged into new constellations of meaning when the course of action does not go as expected. This can be said of a talisman, but also of a whole city.

The spatial reality of disasters appeared to pioneer researchers as something obvious, but it has been ignored by notions that see disasters as socially constructed and allow a more diffuse definition for it. The Sociology of Risk in particular, has repeatedly argued that "nature no longer exists" (Beck 1995; Tierney 1999), implying that modernity means a type of control over nature that is, or could be, total. For sociologists, there is simply no such thing as a natural disaster, since they are seen as *completely* dependent on human decisions (Squires & Hartman 2006). Quarantelli himself has argued that without vulnerable communities "an earthquake is simply a movement of land" and therefore "a disaster is not a physical happening, it is a social occasion" (Quarantelli 2006, p. 343). But there is really nothing simple about an earthquake; it is a sudden, unpredicted and highly destructive "movement of land." Even if population is prepared to face it, it involves a strong recognition of the uncertainty of human relations with nature, technology, and the physical world in general. Only someone who has never gone through one could argue that there is not a physical component to it. Of course, I understand that what radical constructivists want to highlight is that disasters reflect the social characteristics of the communities involved more than the characteristics of the onset agent. But there is no need to completely deny the role of the physical world in order to make such a claim. I will argue that the real issue here is not whether earthquakes are *either* a natural or a social event; neither concept is broad enough to comprehend the whole complexity of the issue. Paraphrasing Abrams (1982) we could say that a disaster is an event in which society and its environments (natural and built) meet; and the designation of a happening as a disaster indicates that the meeting has been judged peculiarly forceful.

Conclusively, it might be a misnomer for sociologists to speak of "natural disasters", but it is also true that a purely sociological (constructed definition) of disaster is unachievable. In practice, a disaster always has a physical (non-social) component (See also: Stallins 1995). This does not mean to return to old ideas about disasters as external shocks, but rather recognizing that the social is embedded in a material world and that physical or non-social factors are sometimes necessary for understanding human action and social processes (even if not sufficient) (See: Goldman & Schurman 2000; Pellow & Nyseth 2013).

Unfortunately, sociology has shown little concern for the physical world, with the notable exception of Environmental Sociology. Most of the body of sociological research is caught up in an anthropocentric ontology that is stubbornly resistant to the possibility that something different than "the social" can shape or influence human societies. However, Thomas Gieryn (2000) in his annual review "A Space for Place in Sociology" has revealed that social studies still show, indivertibly, how materiality matters to social life: stabilizing and giving durability to social categories, arranging patterns of network-formation and collective action, embodying and securing otherwise intangible cultural norms, identities, memories and values, spawning collective action, among other functions. "These consequences" – claims the author – "result uniquely (but incompletely) from material forms assembled at a particular spot" (Gieryn 2000, p. 474). Gieryn does not deal in depth with the destruction of space, but he does explain how important space is to feel security and well-being and adds as a conclusion that "the loss of place, it follows, must have devastating implications for individual and collective identity, memory, and history" (Gieryn 2000, p. 482).

Anthropologists in the field are the most conscious of this aspect of disaster. They see disasters as a "constructed feature of human´s systems," but are more sensitive to the fact that "disasters occur at the interface of society, technology and environment, and are fundamentally the outcomes of the interactions of these features" (Oliver-Smith 1996). And it is this view that has allowed anthropologists to relate disaster with the possibilities for cultural change (Oliver-Smith 1996; Oliver-Smith & Hoffman 1999). In fact, physical destruction should be at the core of any study of catastrophes and social change. When we discuss the longterm effect of disasters the real issue is whether this "forceful meeting" significantly alters the relationships between society and its environments, how people interpret and experience the changes in those environments, and how this change affects social structure. The fact that

catastrophe destroys infrastructure can have a vast impact on networks, culture, psychological health, family relations, etc. The sudden lack of bridges and highways can completely change the economy of a region. Scarcity of basic products can generate strong tension between competing groups. The lack of communications can affect the ability to control parts of the territory. Overall, the sudden destruction of the physical space in which social life develops means either a significant effort to return to the prior status quo or the arrangement of a new normal, at least in certain aspects.

Conclusively, when studying the roots of disaster a purely social definition might be sufficient, but one that examines its consequences must incorporate destruction. The environment (again, physical and built) might be a social construction, but it is one in which the physical world is central. Therefore I will argue that catastrophes should be seen as social occurrences as well as physical occurrences. Or, in other words, a social event in which the environment is crucial. The reality of destruction, debris and rubble is testimony enough of this.

IV. Conclusions

The main contribution of sociology to the study of disasters has been the notion that disasters are rooted in the structure of society. For sociology, there are no natural disasters, all disasters are socially constructed. This means that disasters are the consequence of human decisions (and more often than not these are political decisions). But unfortunately, this perspective has led sociology to almost completely replace the study of disasters with the study of risk. If we are looking to study disasters in the long term, the idea that they should be seen as a kind of social problem is not useful at all. Instead, to study disasters and their consequences we need to recognize them as events that are temporally and spatially situated, even if they are rooted in a broader context. For this we need to reach to contemporary notions in Historical Sociology that defines events as the specific type of occurrence that generates social change. Under this definition, a true disaster is always an event at some level. Otherwise, it would not be recognizable as a disaster even if it constitutes a shock.

Finally, it is worthwhile to say that, under this view, the possibilities for linking sociology and the study of disaster are limitless. Sociology of Health, Urban Sociology, and Economic and Political Sociology, just to name a few, would have something to say about these events. Furthermore, I would argue that disasters should be seen as an exceptional place to test broader sociological theories. Despite frequent characterization of disasters as natural windows into the broader forces that shape societies, there has been little exploration of this by sociology. With this I mean that not only can we enrich the disasters' field by including new theories, but that different areas of sociology could also be further developed if they took disasters into their field. I echo here Rudel's critique of environmental sociologists, claiming that "studies of 'business as usual' conditions do not capture the ways in which single events or aggregations of events transform societies" (Rudel, 2012: 751). Likewise, other fields of sociology could take this advice and pay renewed attention to the challenge of integrating unruly, disordered sequences of historical events into the recurrent social patterns that our training has taught us to emphasize most.

Bibliography

A

Abbot, A. (2001). *Time Matters: On Theory and Method*. Chicago: University of Chicago Press.

Abrams, P. (1982). *Explaining Events: A problem of Method*. Bath: Cornell University Press.

B

Beck, U. (1995). *Ecological Politics in an Age of Risk*. Cambridge: Polity Press.

Bolin, R., Jackson, M & Crist, A. (1998). Gender Inequality, Vulnerability, and Disaster: Issues in Theory and Research. In *The gendered Terrain of Disaster*, by E Enarson and BH Morrow, 28-43. Westport, Conn: Praeger.

Brunsma, D., Overfelt, D. & Picou, S. (2007) *The Sociology of Katrina: Perspectives on a Modern Catastrophe*. Plymouth: Rowman & Littlefield.

C

Carr, L.T. (1932) Disaster and the Sequence-Pattern Concept of Social Change. *American Journal of Sociology* 38, 207-218.

Clancey, G. (2006). *Earthquake Nation: the Cultural Politics of Japanese Seismicity*, 1868-1930. Berkeley, C.A: University of California Press.

Clarke, L. & Short, J.F. (1993). Social Organization and Risk: Some current controversies. *Annual Review of Sociology*, 375-399.

Comfort, L.K (2005). Risk, Security, and Disaster Management. *Annual Review of Political Science:* 335-356.

Crimp, D.(1992). Right on, Girlfriend. *Social Text,* 2-18.

D

Dombrowsky, W.R. (1995). Again and again: is a disaster what we call disaster? Some Conceptual Notes on Conceptualizing the Object of Disaster Sociology. *International Journal of Mass Emergencies and Disasters*, 241-254.

Dynes, R. (2000). The Dialogue between Voltaire and Rousseau on the Lisbon Earthquake: The Emergence of a Social Science View. *International Journal of Mass Emergencies and Disasters*, 241-254.

E

Enearson, E. and Morrow, B. (1998). *The Gendered Terrain of Disaster: Through Women's eyes*. Santa Barbara: Praeger

F

Fothergill, A (2004) *Heads above Water: Gender, Class, and Family in the Grand Forks Flood*. NY: SUNY Press

Fritz, C. E. (1961). Disaster. In *Contemporary Social Problems. An Introduction to the Sociology of Deviant Behavior and Social Disorganization*, by Robert K. Merton and Robert A. Nisbet, New York: Harcourt, Brace & World, Inc, 651-694.

G

Gieryn, T. (2000). A Space for Place in Sociology. *Annual Review of Sociology*, 462-496.

Goldman, M., & Schurman, R.A. (2000) Closing the "Great Divide": New Social Theory on Society and Nature. *Annual Review of Sociology,* 563-584.

H

Healey, M. (2011) *The Ruins of the New Argentina: Peronism and the Remaking of San Juan after the 1944 Earthquake*. Duke University Press.

Hewitt. K (1983) *Interpretations of Calamity: From the Viewpoint of Human Ecology.* Boston: Allen & Unwin.

K

Klinengberg, E. *Heat wave: a Social Autopsy of Disaster in Chicago*. Chicago: University of Chicago Press, 2002.

Kreps, G.A. (1984) Sociological Inquiry and Disaster Research. *Annual Review of Sociology* 10, 309-330.

Kreps, G. A. (1998) Disaster as systemic event and social catalyst. In *What is a disaster? Perspectives on the Question* by E.R Quarantelli, London and New York: Routledge, 31-55.

Kreps, G. A. & Drabek, T.E. (1996). Disasters are non-routine social problems. *International Journal of Mass Emergencies and Disasters* Vol 14, no. 2, 129-153.

M

Mileti, D. (1999) Disasters by design: *A Reassessment of Natural Hazards in the United States.* Washington D.C: Joseph Henry Press.

O

Oliver-Smith, A. (1996). Anthropological Research on Hazards and Disasters. *Annual Review of Anthropology* 25, 303-3028.

Oliver-Smith, A. & Hoffman, S.M. (1999). *The Angry Earth: Disaster in Anthropological Perspective*. London: Routledge.

Olson, R. & Gawronski, V. (2003) Disasters as Critical Junctures? Managua, Nicaragua 1972 and Mexico city 1985. *International Journal of Mass Emergencies and Disasters* 21, no. 1, 5-35.

P

Peacock. W. (1997) Hurricane Andrew: Ethnicity, Gender and the Sociology of Disaster. NY: Routledge.

Pellow, D. N. & Nyseth, H. (2013) An Environmental Sociology for the Twenty-First Century. *Annual Review of Sociology* 39.

Perez, L.A. (2001) *Winds of Change: Hurricanes and the Transformation of Nineteenth-Century Cuba.* N.C: The University of North Carolina Press.

Perrow, C. (1984) *Normal Accidents: Living with High-Risk Technologies.* New York: Basic Books.

Prince, S. (1920) *Catastrophe and social Change. Based upon a Sociological Study of the Halifax Disaster.* New York: PhD Dissertation, Columbia University Department of Political Science.

Q

Quarantelli, E.L. (1987) Disaster Studies: An Analysis of the Social Historical Factors Affecting the Development of Research in the Area. *International Journal of Mass Emergencies and Disasters 5*, no. 3, 285-310.

---. (1998). *What is a Disaster? Perspectives on the Question.* New York, NY: Routledge.

---. (2005) A social Science Research Agenda for the 21st century: Theoretical, Methodological and Empirical Issues and their Professional Implementation. In *What is a Disaster? New Answers to Old Questions* by Ronald Perry and E.L Quarantelli (eds), Xlibris, 325-396.

---.(2006) Catastrophes are Different from Disasters: Some Implications for Crisis Planning and Managing drawn from Katrina." *Understanding Katrina* (Website) Retrieved June 11, 2006. http://understandingkatrina.ssrc.org/Quarantelli/.

Quarantelli, E.L., & Dynes, R. (1977) Response to Social Crisis and Disasters. *Annual Review of Sociology,* 23-49.

S

Sahlins, M (1976). The Return of the Event, Again: With Reflections on the Beginnings of the Great Fijian War of 1843 to 1855 between the Kingdoms of Bau and Rewa. In *Clio in Oceania: Toward a Historical Anthropology,* by Aletta Biersack (ed) Washington D.C: Smithsonian Institution Press, 37-100.

Sewell, W. (1996). Historical Events as Transformations of Structures: Inventing Revolution at the Bastille, *Theory and Society* 25, no. 6, 841–81.

---. (2005) *Logics of History: Social Theory and Social Transformation*. Chicago, ILL: University Of Chicago Press.

Squires, G. & Hartman, C. (2006) *There is No Such a Thing as a Natural Disaster.* New York: Routledge.

Stallins, RA. (1995) *Promoting Risk: Constructing the Earthquake Threat.* New York: Aldine de Gruyter.

T

Tierney, K. (1999) Toward a Critical Sociology of Risk. *Sociological Forum,* 215-242.

---. (2007) From the Margins to the Mainstream? Disaster Research at the Crossroads. *Annual Review of Sociology* 33, 503-525.

Turner, B. (1978). *Man Made Disasters.* The Failure of Foresight. Butterworth-Heinemann

V

Vaughan, D. (1997) T*he Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA*. Chicago: The University of Chicago.

W

Wagner-Pacifici, R. (2010). Theorizing the Restleness of Events. T*he American Journal of Sociology* 115, N° , 1351-1386.

Walker, L.E. (2009). Economic Fault Lines and Middle-Class Fears: Tlatelolco, Mexico City, 1985. In Buchenau, G. & Johnson, L. A*ftershooks: Earthquakes and Popular Politics in Latin America*. University of New Mexico Press.

Wisner, B.; Blaikie, P; Cannon,T, & Davis, I. (1994) At Risk: Natural Hazards, *People's Vulnerability, and Disasters.* New York: Routledge.