

Exploring Disaster Myths by Contrasting Expectations of Different Stakeholders

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Common notions about people's behavior in disaster situations are often not based on empirical data, but rather on disaster myths which overemphasize extreme behaviors, such as panic, disaster shock, looting, etc. (Quarantelli 2008; Wester 2011). The myths share the commonality that they are commonly expected, but only appear very rarely, in the context of a specific prehistory, and only under special conditions (Quarantelli 2008). Disaster myths are not empirically derived, and even though they are widespread, the assumptions can be different in interpretation from person to person (i.e. general populace, media, or actors involved in disaster management) (Drabek 1986). Disaster myths are important because their associated assumptions concerning human behavior guide the actions taken by the different stakeholders before and in disaster situations (the behavior of general populace, actions of disaster management, and the overall organization of disaster management). Furthermore, as Dombrowsky (2005) has pointed out, disaster myths might not be real, but they could become self-fulfilling prophecies.

According to the literature, there are a number of different sources of disaster myths. Myths are expected by media, elites, and the population (Gray/Wilson 1984). Most people have no experience with actual disasters (Drabek 1986) and they might be more informed by media or film narratives that reproduce the belief in myths (Mann/Pass 2011). Expectations formed via other extreme situations (political unrest) are projected onto disaster situations (Quarantelli 1994). Furthermore, everyday behavior is framed differently in disasters, e.g. common petty crime might be interpreted as disaster looting (Scanlon 2003). There are certain discourses of power and elite, racist and classist prejudices that guide disaster myths (Tierney et al. 2006; Stallings 1998).

There are likewise functionalist interpretations of disaster myths: They can have a social function *sensu* Durkheim¹ whereby they indicate those socially dysfunctional behavioral patterns that ought to be prevented in any circumstance. In this sense, myths among professional rescue personnel often take on the function of informing about rare, yet possible behavior that needs to be inhibited. Interestingly enough, disaster myths can only rarely be refuted and as such, one can speak of what Blumberg (1975) terms as "para-theories", which explain why behavior did not occur as myths predicated, e.g. looting was prevented by large numbers of police, curfews, etc. (Tierney et al. 2006).

The research project ENSURE² as the first empirical study of disaster myths in Germany analyzed the expectations of different stakeholders towards disaster behavior. Three surveys were conducted: 1) a document analysis regarding disaster behavior studies (900 scientific articles and research reports); 2) 11 qualitative expert interviews with disaster relief workers as well as; 3) a quantitative representative polling of citizens (N=1.006) in Berlin, Germany, concerning their expectations of one's own behavior in two scenarios (1. Torrential Rain Storm, 2. Major Fire) and their expectations of others' behavior.

¹ Disaster researchers suggest that disaster myths „may serve a useful function for *society at large*. Drawing insights from [...] Emile Durkheim who argued that images of crime [...] are functional for society because they reaffirm the importance of social rules, Quarantelli similarly suggests that perhaps of images of panic, chaos, and social breakdown remind us all of the need to conform to cultural norms, maintain relationships, and preserve social order, even during disaster.“ (Phillips et al 2012: 265)

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By contrasting the status of research with professional narrations as well as with the people's expectations, we attempt to explore the different expectations and their variations in detail.

As mentioned above certain behavioral patterns such as panic, disaster shock, irrational behavior, looting, egoistic and ruthless behavior and the idea that people are solely passive and helpless victims of disasters are considered as disaster myths in the literature. In the literature, panic is spoken of as being an incredibly rare event that requires certain situational conditions (Mawson 2005). Still panic is commonly expected by the populace, the media, as well as from public authorities. Although the experts qualify panic as a rather rarely occurring, it nonetheless acts as a main guiding principle for relief staff's actions. The experts reported that panic should unequivocally be avoided at all costs due to its supposed 'infectious' nature. Para-theories of panic can be found as well as the following passage by a fire-fighter illustrates: *I haven't experienced such panic ... we were always there with enough man power.*

62.3% of the respondents of the poll expect that the majority of people would react in a panic-stricken manner in disaster situations. The myth becomes even more apparent in the data when one looks at the expectations of the respondents concerning their own behavior: depending upon the scenario in question, only 6.1% or 11.0 % of respondents would expect a panic-filled reaction from themselves.

"Disaster shock" (also "freeze" or "disaster syndrome") represents one of the disaster myths (Wenger et al. 1975). Only a few people exhibit "disaster shock", whereby this reaction is limited to suddenly occurring and extremely serious disasters (auf der Heide 2004). Evidence for this myth can also be found among survey data: 48.5% of the respondents expect this shock effect among the general population. At the same time, the respondents assess their own behavior more realistically: here only 5.0% or 6.9% (according to the two scenarios) believe that they themselves would react in a "shocked" manner. On the subject of the "shock frequency" the experts offered diverging opinions: just as many described shock as being an oft-occurring phenomenon as those who described it as being a rare one.

While there is the false impression or overestimation that panic and shock are the expected "irrational" behavioral modes, the actual frequency of "rational" behavior is often underestimated. While 15.7% of those respondents believe that the general population would remain calm and react in a reflective manner, a majority of the respondents (68% or 79.5% depending on the scenario) opined that they themselves would react in a rational manner. Experts frequently describe people as acting irrational according to their knowledge and acting guidelines.

Another common disaster myth is the idea of "looting". "No doubt some looting behavior occurs, but it is minimal at worst and entirely nonexistent, at best" (Drabek 1986). The responses of the interviewed experts reflect this sentiment, where almost every expert described occurrences of looting as either being rather rare, or a completely non-occurring behavior in disaster situations. In spite of these expert opinions, looting behavior is still expected. 42.4% of citizens asked in the Berlin survey believe that apartments and businesses would be looted in disasters.

Egoistic and ruthless behavior plays a minor role in the literature and altruism is viewed the predominant mode of behavior (Levin 1984), even though egoistic and ruthless behavior can be found. The experts interviewed report egoistic behavior as occurring with a moderate frequency or even often, and they likewise perceive it to be a large problem for disaster management. In the poll, 37.1 % of citizens asked believe that in the event of disaster people would act egoistic and ruthless.

The image of the passive and helpless victim has also been proven wrong by disaster research. Authors (Drury/Cocking 2007; auf der Heide 2004) stress that the majority of the initial relief and rescue is carried out by survivors and not by emergency staff. 55.6% of those surveyed, responded that

most people help one another in disaster situations. Even more significant are the results when questioning respondents about their own expected behavior in disaster situations: 67.7% and 83.6% of respondents expected they would help others actively. The expectations of the respondents are not in line with the experts' viewpoint. On the one hand the experts were surprised by the amount of offered help in recent flood events, on the other hand they complained about missing self-help and precaution activities on side of the population.

It has been indicated that prior experience with disaster situations results in more accurate expectations (Drabek 1986). Given our results, prior disaster experience does not significantly influence the expectations of myths, but rather age seems to plays an important role. According to the literature myths are more common among elites (Stallings 2005; Tierney et al. 2006). Depending on how elites are defined, our results concerning this matter are mixed. Educational elites significantly believe more in the myths of irrationality and less in people helping each other. We found a negative correlation between income and the belief looting and passivity in the face of disaster. The older people are the less they believe in panic, but the more they believe in rational behavior, but at the same time the belief in the myths of looting, passivity as well as ruthless behavior correlates positively with age. Gender plays a mixed role in this picture: women believe significantly more in looting, but they also believe significantly more in people helping each other. All in all, future research is needed in this area to find out more about the social distribution of disaster myths.

Disaster myths are well known to disaster researchers. Disaster relief workers partly believe in disaster myths as they report a high occurrence of egoistic behavior and helplessness, but eventough they report a rare occurrence for of panic, disaster shock, and looting they still expect these behaviors Therefore, these myths have a high practical relevance for disaster relief works in terms of preventive measures etc. that are undertaken. "Para-theories" in the case of panic were identified. The populace of Berlin believes in many myths (panic, shock, looting, irrationality, egoistic behavior), but not in the myth of the "helpless victim". As people judge their own behavior more in line with the findings of disaster reserarch, one could say that they judge their own behavior more "realistically" than the behavior of others. Certain person-related variables play a role in the belief in myths, but this did not lead to a conclusive overarching picture.

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