

Far from the maddening crowd

Dr John Drury describes some of the latest ideas in the field of mass emergency psychology, and how they can inform best practice in crowd management.



WHENEVER WE REFER TO MASS EMERGENCIES, disasters, or evacuations a readily-recognisable image often comes to mind: 'mass panic'. The term encompasses a number of psychological features, including exaggerated perceptions of danger, and instincts for personal survival overwhelming civilised behaviours. The behavioural effects of mass panic are said to include disorder and a lack of coordination. So, in an emergency, rather than filing out in an orderly fashion a crowd will jam a limited exit, struggling with each other in their desperation to escape.

Yet, there are also many examples of collective responses to emergencies that are quite the reverse of this negative image. Clichés like the 'spirit of the Blitz' and the 'British Bulldog spirit' evoke an enhanced sense of community, solidarity and strength in adversity – with people taking responsibility for others, and remaining in control of their emotions.

Both representations have quite different implications for practice in all fields of safety and health – whether for the emergency services, event organisers, or those who design public spaces. But which representation is most reflective of reality?

Mass panic or collective resilience?

Despite its common-sense appeal, reviews of the literature on mass emergency events find little support

for the view that, in an emergency, crowd members tend to exaggerate the perceived threat, lose control of their emotions, and behave selfishly.¹ Indeed, an absence of mass panic has been noted at events as diverse as the atomic bombing of Japan in World War II,² the King's Cross Underground fire of 1987,³ and the 2001 World Trade Centre evacuation.⁴

It is, in fact, much more common to find survivors helping the vulnerable, orienting to friends and relatives, drawing upon social rules to guide their behaviour, etc. It has also been pointed out that people are more likely to be killed in an emergency, such as a fire, not through 'panic' but through not taking the emergency seriously enough!

In line with this school of thought, recent studies suggest that mass emergency behaviour is often social, rather than individualistic, and cognitive (i.e. knowledge-driven), rather than irrational. These two ingredients add up to a model not of panic but of collective resilience, which, in practical terms, can be divided into six areas: preparation, information, trust, the wording of warnings, enhancing cohesion, and accommodating the public urge to help.

Preparation

The literature comparing well-managed emergencies with those that have been poorly managed underlines the importance of two standard procedures: fire wardens who know the building, and regular practice drills.⁵ The rationale for these practices is that crowds are cognitive and will be able to make good use of information.

Many organisations are reluctant to carry out practice drills on a regular basis, if at all, because of the 'inconvenience' they cause to the building and other estate users. Yet, what greater 'inconvenience' is there than death?!

Moreover, the difference between life and death could be the few seconds gained through a well-practised drill. When the World Trade Centre was evacuated in 1993, because of a car bomb in the basement, it took people an average of two and a half hours to exit. By contrast, when a hijacked plane hit the North Tower in 2001, people had only one hour and 42 minutes to get out before the building collapsed, yet almost everyone below the floor hit by the plane survived.⁶

Why was the 2001 evacuation so much more

An image from a virtual-reality simulation, carried out by Sussex University, of a crowd escaping a fire in an underground railway station



efficient than in 1993? One reason was that new technologies⁷ had been introduced, such as photo-luminescent signs pointing the way down the fire exits. But, on top of that, after the 1993 incident, six-monthly fire drills were introduced, which meant that people were armed with knowledge about how to evacuate.

Information

There is a common practice among those 'in the know' in emergency situations to try to withhold and restrict information about the nature of the danger. 'Information' that there is an emergency takes the form of a simple alarm, while architectural 'solutions' to the problem of evacuation, e.g. width of exits, are prioritised over enhanced technologies of communication.⁸

All this makes sense if crowds are prone to over-react. But if, as has been argued, under-reaction is more likely, then it is the assumption of 'mass panic' itself that is the real problem! It is crucial, therefore, that survivors are able to recognise immediately an emergency for what it is, which means that *more* rather than *less* information should be conveyed.

An experiment carried out in the Newcastle Metro rail system found that the most efficient emergency egress took place when passengers were told, via a public-address system, not just that there was a fire but where in the complex it was located. The least efficient egress took place when the alarm took the form of a simple siren or bell. Responses to the order simply to "evacuate immediately" fell between these extremes.⁹

Some psychologists argue that we process information less efficiently under stress. However, uncertainty itself is stressful. Hence, evacuees need just the right balance of information both to understand the seriousness of the situation and locate the appropriate and safest exits. Armed with practical information during the event, collective behaviour will be more adaptive and efficient. It is time, therefore, to make use

of new technologies, such as giant LED screens, use of mobile-phone systems, etc.

Trust

Withholding information can also produce a lack of trust on the part of a crowd, creating a 'reverse crying-wolf syndrome'. This is where the authorities obfuscate so many times that, when they actually tell the truth and give out valuable practical advice, it may not be believed by a sceptical public.

The nature of modern hazards means that the need to foster trust between the authorities and the public is greater than ever. One of the greatest man-made threats today is that of chemical, biological, radiological and nuclear (CBRN) attack. In a chemical attack, for example, emergency-services personnel may find themselves stretched to breaking point. Here, instead of the usual strategy of dispersing a crowd away from an emergency area, the crowd may need to be quarantined so that decontamination can take place. Similar issues would arise in the case of an avian-flu pandemic.

Unless there is a relationship of mutual trust, these policies of containment and decontamination could be perceived as infringements of civil liberties rather than public-health measures. Moreover, the authorities need the public to take ownership of their own civil-defence procedures.

The wording of warnings

What do we imagine when someone advises us: 'Don't panic'?¹⁰ When there is already a relationship of mistrust and suspicion, such advice only indicates to us that there probably is something to 'panic' about!

Mass panic, then, is not only an image in popular culture but a discourse with pernicious consequences for what we expect of, and perceive in, other people. If we are told that others are panicking, this undermines our trust in their commitment to act in a socially-responsible way. In leading us to expect selfish, individualised behaviour from others, references to their panic provide a rationale for selfish behaviour on our part. This was well-illustrated when media reports of motorists panic-buying petrol simply fuelled further panic-buying.

Advice simply to 'not panic' would therefore seem to be neither informative nor practical.

Enhancing cohesion

In rejecting 'mass panic' as a model of behaviour in emergencies, social scientists have sought instead to explain the cohesion observed in mass emergency crowds. Indeed, research by Sussex University has sought to explain solidarity and self-sacrifice among strangers, leading it to theorise that shared identity is the basis of widespread cohesion.

In order to test this idea, researchers first developed a method for simulating aspects of mass emergency evacuation in a laboratory.¹¹ Based on computer-game techniques, they produced a virtual-reality simulation of a crowd escaping a fire in an underground railway station. They then looked at the relationship between the shared identity that the research participants felt with other crowd members in the simulation, and their behaviour towards them. Those who felt a greater sense of togetherness with others helped more and pushed

less than participants who felt a low shared identity.

By coincidence, the simulation was being exhibited at the Royal Society in 2005, when the 7 July London bombings took place. The availability of so many accounts of the events encouraged the researchers to move from the laboratory to collecting archive and interview data.¹²

Their studies revealed that cooperation and orderly behaviour were common among survivors of the London bombings, even though few people were with friends and relatives. Most of those interviewed described in detail the sense of unity they felt with other survivors, even though they didn't know them personally. This led the researchers to conclude that the shared fate of the emergency itself can bring people together and create a sense of shared identity.

A further study tested systematically this idea of shared fate and shared identity as the basis of cohesion.¹³ Some 21 survivors were interviewed from 11 different emergency events, including the Hillsborough crush (1989), the Bradford fire (1985), a Canary Wharf evacuation (2001), and the Harrods bomb (1983). On the basis of their interview accounts, people were divided into high-identifiers (i.e. those who felt a greater sense of togetherness with others) and low-identifiers (those who felt a minimal sense of togetherness with others). As expected, high-identifiers were more likely than low-identifiers to perceive shared fate in the crowd; to see, give, and receive help; and to perceive calm, order, social rules, and courtesy.

Based on these findings and existing literature, cohesion and resilience in mass emergencies can be seen in terms of shared identity. Resilience refers to the ability of individuals and groups to resist attack and recover from adverse conditions. Shared identity allows people to see themselves and act as part of a collective – even if they don't know each other. Feeling part of a collective enables survivors to express and expect solidarity, and thereby coordinate and draw upon collective sources of support and other practical resources to deal with adversity.

In practical terms, therefore, cohesion that arises in a mass emergency can be facilitated, rather than inhibited, in the following ways:

- Use of any strategies that promote, build upon, and refer to unity. This could be as subtle as the type of language used.
- Including employees and the public – whether in the planning and preparedness stages, or during the event. Inclusion refers not only to sharing information but also to sharing control. The crowd and the public often need to take greater ownership of their own civil defence.

Accommodating the public urge to help

Whenever there is a major incident, one of the first tasks that the emergency services set out to do is exclude the general public from the scene by throwing a cordon around it. While there are indeed people who just come to stare, many who come to the scene of an emergency do so because they want to offer help.

The same is true of survivors themselves, and this urge to help needs to be harnessed, for several reasons. Firstly, as discussed, enabling survivors to take ownership can serve to build unity and cohesion. Secondly, if people feel that they are doing something



constructive rather than standing idly by, then it can actually make them feel better. The counter-argument to these points is that well-meaning members of the public can get in the way of those who actually know best. Thirdly, however, and most importantly, the emergency services sometimes have no choice but to rely on members of the crowd.

This is well illustrated in the study of the experiences of those on the bombed London Underground trains on 7 July 2005. Many of those involved were not reached by the emergency services for a considerable period of time. In the absence of fire and ambulance crews, it was the passengers themselves who administered first aid, tore up clothing for makeshift bandages, tied tourniquets, and attempted to rescue each other in various ways. In other words, the crowd can be an extra emergency service.

Conclusion

Research shows that the crowd can operate as a psychological resource in times of emergency. This is not to say that crowds do not present problems of various practical kinds for those whose job it is to manage large buildings or public spaces. There are obvious logistical problems – for example, in managing the most effective use of fire-assembly points if large numbers of people evacuate damaged buildings simultaneously.

However, such logistical problems relating to the crowd are quite different to the psychological problems implicit in the notion of mass panic – a concept which rationalises practices that exclude, deny, divide, disenfranchise, and disempower the crowd. By contrast, crowd behaviour in emergencies should be seen as both social and knowledge-driven. Such a view will encourage the use of practices that enhance and facilitate collective resilience, which naturally arises in crowds during emergencies. ■

References

A full list of references can be found online.

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