Dr John Drury, Senior Lecturer in Social Psychology in the Department of Psychology, University of Sussex, explores the social psychology of CBRNe and raises some pressing issues for practitioners

Crowd dispersal

BRN emergencies have mercifully been few and far between, and terrorist attacks using CBRN weapons even fewer. This has meant a lack of direct research on how people react to such emergencies. But by combining current models of crowd psychology with recent studies of public reactions to conventional emergencies and terror attacks, we can draw a number of specific inferences on the nature of mass responses to CBRN emergencies. These in turn have policy and practical implications for those with responsibility for managing such mass responses. In this brief article, I will focus largely on the example of a chemical terror attack, though many of the issues I raise will apply to other forms of emergency.

Starburst versus refusal

A major worry for planners and the emergency services is that those immediately affected by a chemical explosion will spontaneously disperse from the immediate scene – a "starburst" effect. First, this means that contaminants could spread to the wider population. Second, and relatedly, when mass decontamination teams arrive they may find the majority of those they need to treat are no longer in the vicinity, and therefore the process of decontamination is delayed until people refer themselves subsequently.

Findings from our recent research study of crowd reactions to the London bombings of 7 July 2005 are to a large extent consistent with this expectation of starburst. Most survivors gradually moved away from the scene, many without waiting for the medical treatment they needed, or indeed staying to provide the police with witness statements.

This same emergency event, in line with 9/11 and evidence from countless smaller, less dramatic emergencies, also illustrates the tendency of many people to stay behind or at least delay their exit, however. The reasons for this "refusal" can be grouped into three areas. First, and most obviously, there is often an issue over the (delayed) interpretation or underestimation of the seriousness of the event. Often the first signal of an emergency is an alarm and, as is well known, alarms are routinely ignored. People remain in their offices and sit at their desks dismissing what they regard as yet another test or false alarm. But even when faced with obvious danger – in the form of the dramatic visibility, audibility or odour of an explosive attack – there are still people who delay their evacuation from the scene.

Secondly, one of the major findings to come out of crowd research on conventional fires (in theatres, for example) and similar emergencies is the tendency of some people to remain with their friends and relatives. They prefer to try to help their affiliates escape rather than evacuate as an individual. The tragic consequence is sometimes that a small group of friends or family members will die together because they are delayed by their slowest, weakest member.

Third, our research on the London bombings is one of a number of studies suggesting that the "common fate" of an emergency or disaster can create a feeling of togetherness in a crowd of strangers. Most of the victims and survivors of the London bombs were commuters, and were not among friends or family members. Yet levels of help among survivors, both before the emergency services got to them and afterwards, far outweighed acts of personal selfishness. In a situation where no one knew for certain whether or not there were secondary devices, whether the Underground tunnels would collapse and so on, those dozens, if not hundreds, of people who delayed their own exit to offer practical and emotional support to the strangers around them risked their own personal safety. The emergence of a sense of psychological togetherness in a disaster crowd is therefore suggested to be the basis for this willingness to delay exit. There is no reason to assume chemical or other non-conventional explosive attacks would lead to a diminution in this natural human tendency to solidarity.

This issue of many people "refusing" to leave when told or expected is just as serious a consideration for the emergency services as the starburst taking place simultaneously in the rest of the crowd. We perhaps need to think of this "refusal" as an opportunity rather than a further problem in the management of crowds in CBRN emergencies. This argument is developed in the next point.

Mass panic versus collective resilience

There is a dominant, common-sense view of crowd reactions to emergencies and disasters: that of mass panic. This view of crowds over-reacting, behaving instinctively and/or irrationally, becoming disorderly, divided and antisocial, is sometimes replicated in supposedly scholarly accounts of CBRN emergencies. The current consensus in the scientific community in regard to crowd behaviour in general, and mass responses to CBRN in particular, is that mass panic is a notion which mystifies more than it explains, however. Crowd behaviour in emergencies and disasters ranging from Hiroshima to the Kings Cross Underground fire is in fact typically orderly, socially-structured, and co-operative.

Contemporary models of mass behaviour in emergencies therefore stress the maintenance or creation of social bonds. Linking the idea of the "spontaneously social" crowd with the evidence of organisational improvisation during emergencies (such as 9/11), we have proposed a model of collective resilience. In this account, far from being a social problem, the psychological crowd is an adaptive mechanism that enables people to co-ordinate and draw upon collective sources of practical and emotional support to deal with the emergency or disaster. Psychological togetherness in a crowd allows people to express and expect solidarity and cohesion; it engenders mutual trust and support which in turn reduces anxiety and stress and finally promotes a sense of collective ownership of the plans that survivors make together. The psychological crowd gives its members

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the agency to organise the world around them to minimise the risks of being exposed to further trauma. I argue below that this model of collective resilience has important implications for those managing responses to all mass emergencies, but for CBRNe in particular.

Quarantine: A question of legal or health rights?

For the authorities, one of the main differences between managing a CBRNe crowd and many other types of "problematic" crowd event is that, while in the latter case the strategy is one of dispersal, in the former it is containment. The mass of people in the immediate vicinity of a chemical attack need to be decontaminated before they can be allowed to leave the area, not just for their own health and safety but for the sake of that of the wider population. But depending on the precise mode of attack, a CBRN event may be more ambiguous, and the extent of the threat initially less clear, than in a conventional emergency such as a simple bombing or fire. The pathogens or toxins may be invisible, for example. For these reasons, it is incumbent on those in authority to explain to the public why they must be "detained".

From the perspective of the police, the last thing they need is for what is a situation of public safety and health becoming one of public (dis)order. If there is a widespread view in the crowd that their quarantine is an illegitimate attack on their civil liberties, then far from the compliance the authorities require there will be opposition and even mass physical resistance.

Of course the authorities will, one hopes, be trying to communicate with the crowd, to explain what has happened, why people must be detained and how and when the decontamination will take place. Yet communication is a two-way process. For information from the authorities to be believed and complied with, there needs to be trust. In the current climate of widespread public cynicism towards those in authority - when politicians are widely seen as insincere and when the police's action is sometimes perceived as biased or politically motivated - achieving trust in such a delicate situation is a major problem.

Yet if and when trust is achieved then it becomes possible to take advantage of the opportunities afforded by the natural collective resilience of the emergency crowd. In a large CBRN incident, it is possible that for some time the emergency services will be overwhelmed. They will not have the numbers to implement the communication, quarantine and subsequent decontamination necessary. There is again a parallel here with our findings from the London bombings. As they waited for the emergency services to arrive, it was the survivors themselves who tied tourniquets round each others' bleeding limbs, dressed each others' wounds with makeshift bandages and provided other forms of mutual aid for the collective good. In effect the crowd acted as the fourth emergency service.

How do we get to the point of empowering a crowd in a frightening and dangerous CBRN emergency to take ownership of its own health and safety in this way? The innovation I have been recommending is based on the observation that, as already mentioned, a CBRN incident is essentially a matter of health rather than public order. If this is the case, then the established policy of having the police as the public face of all instructions to and management of the public needs to be questioned. The police as the public face of the authorities in a CBRN incident, with their background of reacting to crowds in terms of a public order, rather than community policing, model could easily raise questions in people's minds about the trustworthiness and legitimacy of the whole operation. The police's role and specialism is ultimately and essentially the physical enforcement of law, order or government will. So their attempt to manage a CBRN situation could easily create a situation in which the context is perceived by

crowd members as one of potential conflict between opposing forces rather than one of mutual health and safety.

Therefore, I am suggesting that the public face of the authorities in CBRN incidents should not be the police but the medical profession. Information and instructions that take the form of doctors' orders are far less likely to create antagonism than those from the police. In turn, such orders are more likely to engender compliance in the crowd, who are then more likely to take ownership of, and collective responsibility for, the task of containment and decontamination. Empowered and united in this way, members of the crowd will give and expect support from each other in the consensually shared endeavour of public health protection in an emergency.

Moreover, within this context, those few members of the public who reject the collective will do not need to be arrested or otherwise physically apprehended by the police. The crowd will police itself and ensure conformity to what is perceived to be a matter of both civic duty and collective self-interest.

Conclusion

The discussion points raised here have been developed not only from academic research and theory, but also from dialogue with a number of relevant professional groups. These include: the Joint Royal Colleges Ambulance Liaison Committee; the Police National CBRN Centre (which has now embodied some of the principles outlined here in their training and documentation); the Department of Health and Nato emergencies and disasters consultation; and the Royal United Services Institute seminar on the role of the media in emergencies. It will be of interest to see the response to the issues raised here from other CBRNe professionals.

Dr John Drury's main research interests are in features of crowd behaviour, including crowds as locations of social psychological change and sources of resilience. He has published nearly 40 academic papers, and speaks regularly at international conferences. He also is involved in a number of projects to communicate his work and act as a consultant to end-users, including through his research web-site http://www.sussex.ac.uk/affiliates/panic/ and via a Continued Professional Development course on the "Psychology of Crowd Management". He can be contacted by e-mail at j.drury@sussex.ac.uk.

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