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The Nature of Collective Resilience:  
Survivor Reactions to the 2005 London Bombings

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*Accounts from over 90 survivors and 56 witnesses of the 2005 London bombings were analysed to determine the relative prevalence of mass behaviors associated with either psychosocial vulnerability (e.g. 'selfishness', mass panic) or collective resilience (e.g. help, unity). 'Selfish' behaviors were found to be rare; mutual helping was more common. There is evidence for (a) a perceived continued danger of death after the explosions; (b) a sense of unity amongst at least some survivors, arising from this perceived danger; (c) a link between this sense of unity and helping; and (d) risk-taking to help strangers. We suggest a novel explanation for this evidence of 'collective resilience', based on self-categorization theory, according to which common fate entails a redefinition of self (from 'me' to 'us') and hence enhanced concern for others in the crowd.*

**Keywords:** London bombings, resilience, panic, self-categorization

### **Introduction**

On July 7th 2005, a series of coordinated terrorist bomb blasts hit London's public transport system during the morning rush hour. The London bombings saw the largest mass casualty count in the UK since World War II (Aylwin et al. 2006). The present paper presents an analysis of survivors' behaviors and experiences as collected in contemporaneous newspaper data, personal accounts, and interviews. Patterns in each of these datasets are analysed quantitatively and qualitatively in order to evaluate two

influential explanatory frameworks that are characteristically applied to the mass psychology of emergencies and disasters.

On the one hand, there is the *vulnerability* framework, which emphasises the psychosocial frailties of, and risks to, the public (Durodié and Wessely 2002; Furedi 2007)<sup>1</sup>. This framework suggests that, within an emergency, people are collectively prone to pathological, irrational and maladaptive responses, particularly ‘mass panic’ (Dynes 2003). The notion of ‘mass panic’ shares with classical ‘crowd science’ the assumption that the crowd is less intelligent and more emotional than the lone individual (Le Bon 1895) and hence reactions to an emergency will be disproportionate to the actual danger (Smelser 1962). Simple ideas and sentiments are said to spread quickly through the crowd in a process of ‘contagion’ (McDougall 1920). However, rather than the emergence of ‘mental unity’ (Le Bon 1895) as in the ‘rioting’ crowd, ‘mass panic’ is understood as the *dissolution* of unity and social bonds in the crowd (Freud, 1921). In an emergency, it is suggested, ‘instincts’ for personal survival override socialized responses (Strauss 1944). The result is said to be uncoordinated and competitive behavior, such as individuals pushing and trampling each other to reach personal safety (Schultz 1964).

In the field of mass emergency and disaster research, the notion of mass panic has been largely discredited by the finding of orderly, meaningful mass behavior in disasters (e.g., Sime 1990). However, some influential practitioners, including crowd modellers in the fields of engineering and design, still draw upon the notion (e.g., Helbing, Farkas and Vicsek 2000; see Sime 1995). Its assumptions also still influence social policy (Dynes 2003) and persist in the form of off-the-shelf clichés and popular representations of disasters (Tierney, Bevc and Kuligowski 2006).

On the other hand, however, there is the *resilience* framework. This emphasizes collective self-help, community resources, and survivors’ ability to recover and function in the face of adversity (e.g., Dynes 2003; Furedi 2007; Wessely 2005b). For example, in analyses of the 2001 World Trade Center disaster, resilience was used to conceptualize the endurance of citywide social organization through the planned provision of resources (Kendra and Wachtendorf 2001), and the improvisation of effective cooperation amongst emergency teams through spontaneous use of informal social networks (Tierney 2002). In some form, the concept is embodied in a number of government agencies and organizations in the UK and USA which were set up to deal with the threat of terrorism (e.g. the London Resilience Team, Birmingham Resilience).

Each framework clearly has a number of policy implications. If the public are inherently ‘vulnerable’, one corollary is that they will need to be actively protected from ‘risk’ through the withholding of information which might lead to mass panic (Furedi 2007). The threat of mass panic and social disintegration also serves to justify paternalistic social control policies and the implementation of a mistrustful ‘homeland security’ approach, rather than social policies which might encourage public initiative and independence (Dynes 2003).

If people are naturally collectively resilient, however, rather than being treated as part of ‘the problem’, crowds can be trusted with information during emergencies (Proulx and Sime 1991) and communities should have greater involvement in their own defence and psychological recovery (Jones, Woolven, Durodié and Wessely 2006; Wessely 2005a). For example, some argue that being open over the nature of terrorist threats is the best way to ‘vaccinate’ the public against panic (Glass and Schoch-Spana 2002).

In this paper, we ask which of the two explanatory frameworks—vulnerability or resilience—has more resonance in the reported experiences and behaviors of those caught up in the emergency events of July 7<sup>th</sup> 2005. Thus, based on the previous literature, a first question concerns the extent to which survivors and witnesses describe the events as ‘panic’ rather than referring to calm or orderly evacuation behavior amongst survivors and witnesses.

On the surface, greater reference to ‘panic’ than to ‘calm’ or ‘order’ would suggest support for the vulnerability framework. Such references might therefore lead us to expect extensive evidence of personally selfish behaviors of the type that characterizes mass panic: uncoordinated, competitive acts, such as individuals carelessly neglecting others in need, or pushing and trampling others to reach personal safety (Shultz 1964). Yet, as mentioned, the term ‘panic’ is a commonsense cliché. The term is often used when what is fact is being described is simply flight from the source of danger (Quarantelli 1960). Its use by survivors and witnesses therefore may be a gloss rather than a description of what people actually did. Thus the second question is whether any such observations of personal selfishness were more or less common than observations of mutual helping. If perceived helping outweighed personally selfish acts this would be in line with the resilience framework.

While a finding that resilience prevailed during the London bombings might not appear particularly novel, the present analysis seeks to go further than previous research by exploring its social-psychological basis in crowds of survivors. Understanding the psychological nature of resilience and the conditions that facilitate it will have profound consequences for the planning of emergency evacuation procedures, the response of the emergency services, and aftercare practices.

In the field of disaster research, resilience has a number of features including improvised use of informal relationships to achieve goals and the ability of organizations to provide backup and coordination (Aguirre 2006; Dynes 2003; Kendra and Wachtendorf 2001; Tierney 2002). The question motivating the present research is whether such improvised, adaptive sociality can occur not just in structured institutions and organizations, but also in unstructured ad hoc crowds of survivors in the very midst of an emergency.

There are a number of models of mass emergency behavior that suggest a social-psychological basis for resilience: in particular normative approaches and affiliation. We briefly outline these before describing our own approach, which is based on the principles

of self-categorization theory (Turner 1982; Turner, Hogg, Oakes, Reicher and Wetherell 1987).

### **Approaches to resilience in emergency crowds**

Emergent norm theory (ENT; Turner and Killian 1957, 1972, 1987; Turner 1964) represents one of the earliest attempts to transcend the longstanding and pernicious irrationalist tradition in the general field of crowd psychology (e.g. Le Bon 1895). For ENT, all social and collective behavior is a function of *norms*. But since ‘riots’ or disasters are ‘extraordinary’ events, where everyday rules of conduct do not necessarily apply, new norms have to be developed. These are said to emerge from a process of interpersonal interaction (‘milling’, rumour and ‘keynoting’ by influential individuals), until a shared definition of the situation is agreed (Turner and Killian 1972).

Early versions of ENT suggested that crowd unanimity was an ‘illusion’ and stressed (‘personality’/motivational) variety within the crowd (Turner and Killian 1972). By contrast, R.H. Turner’s most recent formulations (1994a, b, 1996) take into account new developments in sociology (such as framing) to place a greater emphasis on unity in the crowd and the role of shared ‘worldviews’, frames of reference, shared perceptions of risk, and a shared ‘moral sense’, in explaining this unity. However, we agree with McPhail (1991) when he argues that the essence of ENT has remained unchanged. As he says, for ENT it is still interpersonal interaction that makes collective behavior possible. Turner and Killian’s model of shared sociality is grounded in that of Sherif (1936), for whom face-to-face discussion between individuals is the source of ‘groupness’.

Empirically, ENT suggests that the emergence of collective behavior will be a relatively drawn out process: the larger the group, the longer the discussion to reach agreement, and hence the greater the delay in acting during an emergency (Aguirre, Wenger and Vigo 1998). Yet even some supporters of ENT admit that crowds can sometimes remain united but shift norms very quickly in relation to changing contexts (Wright 1978). As Reicher (1984) argues, extended milling and discussion is not always necessary for the acceptance of new norms even in a novel situation.

From the 1970s onwards, ENT came to place more stress on the (constraining, enabling) role of the (existing) normative order and social structure in shaping collective behavior (though, as Weller and Quarantelli 1973 argue, Turner and Killian still saw emergent norms as more important). This was still not enough for Johnson (1988), however, who criticized their account in which ‘panics’ result from an emergent definition of the situation in which norms of cooperation no longer apply and in which selfish pursuit of individual ends are viewed as legitimate (Turner and Killian 1987). Johnson’s is perhaps the dominant normative model today (Aguirre 2005). He abandons the notion of emergence and instead posits a simple continuity between mundane social situations and emergencies; both are said to be structured by pre-existing norms and roles which guide and constrain behavior, ensuring sociality and delimiting individualized

panic in a crowd. Johnson's normative approach would therefore seem to explain some of the evidence of routine social behaviors identified in emergencies, such as queuing, men helping women more than vice versa (i.e., gender role conformity), and the greater assistance offered to the elderly and infirm than the able bodied (Feinberg and Johnson 2001; Johnson 1987, 1988).

While there is now an accumulated mass of evidence to support the predicted continuity between mundane and disaster behavior suggested by Johnson's normative model, there are still some behavioral discontinuities which need to be explained. For example, while it might be normative to help someone in distress in everyday circumstances, it is surely stretching the concept of 'normative' to explain the risks survivors take to help strangers, as has been found to happen in some emergencies (Clarke 2002).

A more recent development is the affiliation approach, which is based on principles from attachment theory (Mawson 2005). This suggests that: (i) in the face of threat, we are motivated to seek the familiar rather than simply exit; and (ii) the presence of familiar others (i.e. affiliates) has a calming effect, working against a 'fight or flight' reaction. This theory would explain why people often prefer to remain with loved ones even at risk of death rather than escape alone (Sime 1983).

While the affiliation approach explains the patterns of behavior when the crowd is made up of small groups of families or friends (as in the Beverly Hills Supper Club fire; Cornwell 2003; Johnson 1988), emergencies often involve large numbers of people who do not know each other or become separated from their associates. Yet in these events too there is often evidence of mutual helping and even self-sacrifice (Ripley 2005). Further, a corollary of the affiliation approach is that where there is extreme danger and people are amongst strangers, there will be mass panic (Mawson 2005). The research evidence that mass panic is rare if not 'mythical' (Dynes 2003; Sime 1990) seems to highlight a flaw in an otherwise well respected theory (see Aguirre 2005).

While each of these approaches to sociality in mass emergency behaviour has its strengths, when we measure them against some features of the review evidence, we are directed to a crucial absence. The emergent togetherness, solidarity or 'community spirit' observed in emergencies and disasters is surely one of the most important and striking forms of resilience. An emergency or disaster, far from dividing people into instinct-driven competitive individuals, can serve to create a powerful sense of unity and hence mutual support amongst survivors both during the immediate crisis (Aguirre 2005; Clarke 2002) and in the recovery period afterwards (Fritz 1968; Fritz and Williams 1957). ENT at least had the advantage of suggesting that there was some 'new' or emergent sociality that comes out of the emergency itself. Johnson's (1988) normative model and the affiliation approach (Mawson 2005) have both lost this.

We suggest that a fuller explanation of togetherness and hence crowd resilience in emergencies and disasters requires going beyond a reliance on pre-existing norms and

interpersonal relationships. Put differently, what is needed to complement the strengths of existing approaches is a model of *mass emergent* sociality or *collective* resilience, i.e. coordination and cooperation within a crowd of *strangers*. While the vulnerability framework emphasizes the *dissolution* of social bonds, and recent normative and affiliation models stress their *maintenance*, we also need to look at the possibility of the *creation* of such bonds—yet without relying on empirically untenable and conceptually individualistic notions of interpersonal interaction<sup>2</sup>.

A new model of mass emergency behavior to be explored here is derived from self-categorization theory (SCT; Turner 1982; Turner, Hogg, Oakes, Reicher and Wetherell 1987). SCT suggests that feeling and acting with others as part of a group, crowd, organization or even a nation, operates through *self-categorizations*, which may range from personal self-categorizations (definitions of what makes us unique) to shared, collective self-categorizations (definitions that classify us with others). Cognitively categorizing oneself with others on some context relevant dimension (e.g. ‘we are all men in contrast to women’) tends to heighten perceptions of similarity and unity with these others. It also has emotional consequences; the shift from ‘me’ to ‘we’ means a greater commitment and loyalty to the group, who are now seen more like ‘self’ than as ‘other’. This, in turn, can mean acting in their interests in various ways, even where they are not known personally (Drury and Reicher 1999; Levine, Prosser, Evans and Reicher 2005).

In this account, one of the bases for seeing oneself as a member of group with others is the perception of a common fate (Campbell 1958; Turner et al. 1987). In line with this, research on collective conflict has shown that the perception of an external threat, which is perceived to affect everyone present indiscriminately, can transform an aggregate of disparate individuals into a psychologically unified crowd (Reicher 1996; Stott and Reicher 1998). This in turn would be expected to produce some of the solidarity effects suggested by SCT outlined above.

If the SCT-based approach being suggested here is right, we would expect to find that, even where people were mostly amongst strangers during the London bombings, if there was a common perceived danger of death it would create a sense of shared identity. Thus we would expect a positive association between such shared identity (as reflected in references to enhanced ‘unity’, ‘togetherness’ and so on) and helping. Hence, finally, rather than being concerned only with affiliates, we would expect at least some people to help strangers even at risk to themselves personally.

### **Background: The London bombings of July 7<sup>th</sup> 2005**

The London bombings of July 7<sup>th</sup> 2005 consisted of four explosions (three on the London Underground and one on a London bus) which killed 56 people (including the four bombers) and injured over 700. Those in the bombed underground trains were not reached by the emergency services immediately, and were left in the dark, with few announcements, and with no way of knowing whether they would be rescued, or whether

the rail lines were live. There were fears by both those in the trains and the emergency services of further explosions. Triages were set up close to the explosions. Some, though not all, those injured were ferried to various London hospitals; others made their own way to work or home—though with some difficulty as transport in London was massively disrupted and didn't return to near-normal till the evening. Subsequent research established that the events led to substantial stress in around 30 per cent of Londoners, though most did not desire professional help (Rubin, Brewin, Greenberg, Simpson and Wessely 2005).

## Method

### Data and sample characteristics

In the months following the bombings, we sought to gather as much data as possible on people's experiences, perceptions, behaviors, and feelings. These can be grouped into three main orders of data: contemporaneous newspaper material, archive personal accounts, and primary data.

**Contemporaneous newspaper accounts.** One hundred and forty one accounts from 18 newspapers were collected. These data comprise the news items produced in the days immediately after the events, which include short statements from eye witnesses and survivors, as well as from commentators (such as journalists and public figures). Given the limited information provided in the newspapers, there is no way of verifying how many of the accounts are from the same people quoted more than once.

**Personal (archive) accounts.** Accounts from one hundred and twenty seven witnesses and survivors were collected: 26 (transcripts and written evidence) came from the London Assembly review hearing report (June 2006); 68 came from news websites (mostly BBC); 22 were blogs or message board contributions; nine came from features in newspapers; one was from an autobiographical book; and one was from a BBC radio documentary programme.

Accounts from the London Assembly data (which was read-only) varied in length from 1500 to 15,000 words, the mean average account being around 3500 words long. Barring the autobiography, the other accounts (which were editable) totalled approximately 44,000 words, and ranged from 2 lines to 3 pages with the mean length being 380 words. One hundred and four of these personal accounts were recorded on the day or in the immediate aftermath of the bombings, whereas the other 50 were produced in the 12 months after the event.

Eighty one were survivors who were on one of trains or the bus that was bombed; the rest were firsthand witnesses: 26 saw or heard one or more of the bombs, 19 were in the area of the blast, and one was from the emergency services. Divided by location of the explosions, 56 were at Kings Cross, 26 were at Aldgate, 27 were at Edgware Road, 13

were present at the bus bombing (Tavistock Square), and four more gave accounts from more than one location.

Twelve survivors were classified as having only slight injuries ('walking wounded'), 11 had severe injuries requiring hospitalization, 13 reported as having PTSD, and another six had both physical and psychological trauma. There were insufficient data on the remaining survivors. Including both witnesses and survivors, 70 of those who provided information on their gender were male and 47 were female. All except six provided names, and most of these provided surnames as well as first names. We were therefore able to confirm that only one person appeared in both these data and our primary data (discussed below).

Accounts from an additional twenty seven people who were not direct witnesses or survivors but were people simply in London at the time were also gathered (26 from websites and one from a newspaper). They are therefore excluded from the foregoing analysis, except where indicated.

**Primary data respondents.** Advertisements were carried in newspapers and a website<sup>3</sup> we set up asking those caught up in the explosions to send us their personal accounts. Links to our request were provided in the websites of both London Resilience<sup>4</sup> and the 'Kings Cross United' survivors' support group. The website contained a set of questions, including the following:

Tell us if you were scared, how scared you felt.

Tell us how much danger you felt you were in.

Tell us if others were present and what sort of crowd it was.

Tell us whether you felt any sort of bond or any sort of unity with others who were there.

Tell us about the reactions of others: from what you could tell, how did they feel and how did they behave?

Tell us if you saw any examples of people helping others or else simply looking out for themselves and ignoring others.

Tell us if you saw any examples of cowardice or heroism.

Tell us if your feelings or perceptions towards other people around you changed over the course of the event. If so in what way?

Fifteen email accounts were received, averaging about 1410 words each. Such email responses were necessarily brief. Respondents were therefore asked to be interviewed so that their responses could be probed in detail. Eight agreed to this request. Four further interviewees were recruited via advertisements in the press, approaching support organizations and official bodies, and through snowballing personal contacts.

Both the website questionnaire and the interview schedule were structured through standard interview techniques to try to identify processes of interest yet to avoid



interviewer bias. Thus each new interview theme began with open questions (e.g., ‘How did people respond?’) before being followed up with closed questions about specific behaviors (e.g. ‘Did you see anybody helping? Did you see any selfish behavior?’)

There was a potential hazard of causing distress through the interview as speakers relived the trauma. The interviews took place at least two months after the events, which is when clinicians screen for PTSD; survivors would have had a diagnosis by then and therefore could be warned that the interview could be distressing. We also took steps to minimize the risk by ensuring that (a) the interviewer had a clear and graded set of steps of take if there were any signs of distress during the interview; and (b) the nature of the interview (i.e., research not therapy) was clear throughout the session. Ethical approval was granted to the project by the University of Sussex School of Life Sciences Ethics Committee in September 2005. Each interviewee provided informed consent for their interview responses to be analysed and published anonymously.

The twelve interviews each lasted between 45 minutes and an hour, and produced a mean of 6875 words per verbatim transcript. Six of the interviewees were men and six women. Of the seven email-only respondents, six were women. Ages were not recorded. Five of the interviewees and four of the email-only respondents were survivors; the rest were witnesses. Of the survivors, three suffered minor injuries, one of these requiring hospital treatment; one of them was also diagnosed as suffering from PTSD.

In summary, excluding the contemporaneous newspaper accounts and allowing for some unverified overlap between the personal accounts and the primary data, the data comprise accounts from over 146 survivors and witnesses, most of whom (90) were actually caught up in the explosions. Based on the London Assembly Report (2006, p. 73) estimate that 4000 people were ‘directly affected’ by the four explosions, this means the sample was around five per cent of this total population.<sup>5</sup>

### **Data analysis principles**

**Triangulation.** A first methodological principle was that of triangulation. Widespread agreement between accounts and across different sources would give us some confidence in any claims about the main contours of behavior and perception amongst those caught up in the explosions—for example, that mutual aid was or was not widespread.

**Hierarchical quality of data.** A second methodological principle was that the different sources of data were each of different value and quality. While each could contribute to the analysis, they would not do so equally.

The newspaper report dataset was the largest and had the advantage of being contemporaneous. At the same time, however, it was both the most superficial and the most partial. Media agendas circumscribe the questions that witnesses and survivors are asked, and determine which features of such accounts finally end up on the printed page. For example, the common sense image of ‘mass panic’ could operate as a frame through

which the media filters information on the events, excluding some elements and emphasizing or adding others. Thus, while these data provided some evidence of the types of behaviors, emotions and perceptions observed during the events, there was little indication of the processes behind these observations.

The corpus of 127 archive personal accounts went beyond these snippets of observations and included more reflections on and reasons for behavior. (Some accounts were also contemporaneous, and so cannot be criticized for being simply post hoc reconstructions.) However, in the production of these accounts, the agenda and aims are again different than ours as researchers. For example, people were not asked and tended not to volunteer whether or not their behavior during the events was motivated by affiliation, and whether there was a strong sense of common identity (or a sense of disunity).

Hence there was a need for primary data—in other words, to ask systematically not only what people saw and did, but about their various possible motivations. This dataset, then, while the smallest, is the most informative, detailed and elaborate.

### **Coding and thematic analysis**

The data were subject to content and thematic analyses, each of which entailed coding material in relation questions of interest. For example, for each source we checked for and grouped all references to the term ‘panic’. For the contemporaneous newspaper material, this comprised a count of positive or negative references per article, whereas for the archive personal accounts and primary data this comprised a ‘yes’ or ‘no’ as to whether each person used the term.

Personally ‘selfish’ or competitive behaviors were operationalized as any behaviors in which someone acted at the expense of another when they had a choice to do otherwise. Examples included someone elbowing another out of the way in order to get out, or someone ignoring another’s request for help when they had a choice to do otherwise. The same procedure was carried out for ‘helping behavior’, which was defined as anything done or said with the purpose of assisting another. This included comforting others, offering them bottles of water, physically helping people up or along, giving people information or directions, giving first aid, tying tourniquets, and applying makeshift bandages. (Where possible, ‘help’ was broken down into three categories: ‘number I helped’, ‘number who helped me’, ‘number I saw being helped by others’.)

The other categories coded and counted included perceived threat (i.e. references to how much danger people felt they were in); fear (own and others); ability to help (references to physical or other limits to the help people could give each other); references to calm and orderliness; concern for others (friends and family versus strangers). Common identity was operationalized in terms of references to unity (e.g., solidarity, togetherness).

In each case, the size of a piece of coded text within this scheme varied from a sentence to a multisentence chunk. Sentences or chunks were coded according to the rule of thumb: assign the single most appropriate code in the scheme (Miles and Huberman 1994: 65).

## Results

### Are the events characterized as ‘panic’?

In the contemporaneous *newspaper* data, 57 eyewitness and survivor accounts used the term ‘panic’. (See Table 1, below, for summaries of data on all measures.) However, there were 20 such accounts that explicitly denied there was panic, while 37 referred to ‘calm’ amongst those affected by the bombs, and 58 described the response as an ‘orderly evacuation’.

In the archive *personal accounts*, 46 people described the events as ‘panic’ or referred to people ‘panicking’; but 53 of them (and indeed 17 of the same people) also characterized the evacuation as ‘orderly’<sup>6</sup>.

Interviewees and email *respondents* were much less ready than those in the newspapers and personal accounts to use the term ‘panic’. In describing the behavior of the rest of the crowd, only two respondents endorsed the term ‘panic’. But even here, when asked what she meant, one of these respondents replied simply that people were screaming:

Int: Do you think anybody panicked?

LB12: In our carriage no, or if they did they panicked inwardly, they didn’t express their panic. I mean there was no screaming in our carriage I mean people were trying to get out the door but they weren’t trying to get out of the door stupidly.

The same respondent also described others’ behavior as overwhelmingly ‘calm’. Five other respondents straightforwardly denied that people panicked, said that people ‘started to panic’ but were ultimately calm or controlled (two), said that they didn’t see any panic (two), or reserved the term for one individual or a small minority in the crowd ‘hyperventilating’, ‘screaming’ or becoming ‘hysterical’ (four).

**Table 1. Summary statistics for all measures**

	Contemporaneous newspaper accounts	Archive personal accounts	Primary data: Interviews and emails respondents
Total	141	127	19
'Crowd panic'	57	33	2
'No panic'	20	-	5
'Crowd calm'	37	-	13
'Crowd orderly'	58	52	3
'I helped'	57	42	13
'I was helped'	17	29	7
'I saw help'	140	50	17
'Selfish' behaviors	3	11	4
With strangers	-	57	15
With affiliates	-	8	4
Fear	31	89	6
Possibility of death	70	68	12
Not going to die	-	2	1
Common fate	0	11	5
Unity	7	19	11
Disunity	0	0	1
Unity / 'I helped'	7 / 3	19 / 11	11 / 10
Unity / 'I was helped'	7 / 2	19 / 8	11 / 6
Unity / 'I saw help'	7 / 5	19 / 12	11 / 10
Unity / total 'selfish behaviors'	7 / 2	19 / 0	11 / 2
Concern for affiliates	12	24	3
Concern for strangers	21	24	9
No concern for affiliates	-	7	4
Risks to help strangers	-	12	5

In describing their own behavior, only one said s/he 'panicked', and four others said they 'felt' panicky. However, these were again references to feelings (of fear) rather than overt behavior. The rest of our respondents were either explicit that they did not panic (2) or simply did not refer to panic in describing their own behavior. Thirteen respondents explicitly said that people in the crowd were mostly calm:

It took about twenty twenty five minutes before we got out ... and some people were really itching to get off the train so more people the more agitated people were not being shaken up they felt they were, even though they wanted to get off at the same time so it was quite a calm calm evenly dispersed evacuation there wasn't people running down the train screaming their heads [off]. It was very calm and obviously there was people crying [ ]<sup>7</sup> but generally most sort of people were really calm in that situation, which I found amazing. (LB 1)

Seven said that they themselves felt calm, and three described the crowd as orderly.

### **Helping versus personal 'selfishness'**

In the contemporaneous *newspaper articles*, there were 57 reports from people who said they helped others, 17 accounts from people who were helped by others, and 140 further witness observations of help between survivors. This help included people reassuring each other (by hugging or talking), pulling people from the wreckage, and holding people up as they evacuated. There were only three eyewitness reports of personally selfish behaviors in the newspapers. An example is at the bus bombing where a witness described people elbowing each other aside in their efforts to get away.

Forty two of those providing archive *personal accounts* reported helping others (most of them helping more than one person), 29 reported being helped by others, and 50 reported witnessing others affected by the explosions helping others (most of these again, including the train drivers, helping more than one person).<sup>8</sup>

There were only 11 personal accounts of observed behavior that could be described as personally selfish (such as the case of someone described as 'selfish' for phoning work to cancel his meetings rather than call the emergency services); six of these were cases where the speaker suggested that another survivor behaved 'selfishly' to them or to someone else. Four people glossed their own behavior as 'selfish'. However three of these were coded as being unable to help others, usually because of some physical impediment, even where they wanted to (cf. Cornwell, Harmon, Mason, Merz and Lampe 2001). Therefore we might suggest that such self-reports of 'selfishness' could be cases of survivor guilt (Titcher and Frederick 1976).<sup>9</sup>

Of our 19 *respondents*, 13 reported at least one instance of themselves helping another—ranging from comforting them to giving them water. Those that didn't report helping were not themselves in a position to help: two were not near any survivors, one was in plaster, and the other attributed his behavior to shock. Seven of our eight survivors reported being helped by others; the eighth didn't give enough information. All of our respondents (except two who didn't give enough information) reported witnessing people helping others, and in most cases this helping was described as widespread, despite difficult conditions (such as darkness, injury and pain):

I remember walking towards the stairs and at the top of the stairs there was a guy coming from the other direction. I remember him kind of gesturing; kind of politely that I should go in front—‘you first’ that. And I was struck I thought God even in a situation like this someone has kind of got manners really. Little thing but I remember it. (LB 11)

Seven of our respondents said they *felt* ‘selfish’ or guilty for being overly concerned for their own personal safety. However, again in line with the suggestion that this may be no more than survivor guilt, only one of these described actually neglecting someone when in a position to help. Seven respondents were explicit that they had witnessed no selfish, competitive, or similarly morally reprehensible behavior from other people:

I didn’t see any uncooperative activity, I just saw some people who were so caught up in their own feelings that they were kind of more focused on themselves but I didn’t see anyone who was uncooperative. I didn’t see any bad behavior” (LB 4)

However, two respondents described one individual being concerned with his mobile phone when they thought he could have been helping, and one described people ‘ignoring others, walking past’. This makes a total of four selfish acts witnessed or carried out by three of our respondents.

Thus, while, as we noted earlier, some people used the language of panic, their account of their actual behavior did not match the classic description. The most that could be said is that some people expressed the fear, but not the behavioral responses, usually associated with ‘panic’.

### **Were people amongst strangers?**

The affiliation model would suggest that the widespread helping noted above occurred because people were amongst family members or other people they knew. The model also predicts panic if people are with strangers in a situation of extreme danger. Therefore, to the extent that the helping noted above occurred even though people were in fact with strangers rather than affiliates, affiliation cannot be the major explanation, and self-categorization is a possible antecedent of the collective resilience observed.

In the contemporaneous *newspaper material*, there are no figures on the number of survivors who were with people they knew, although many of the reports describe those affected as ‘commuters’, with the implication that most people were with strangers.

Of those providing archive *personal accounts* who gave information on who they were with, only eight people reported being with friends or family when the bombs

exploded, while 57 reported being amongst strangers. This includes 48 people who were actually on the trains or bus that exploded.

Among our 19 *respondents*, only four people (one interviewee and three email respondents) were with friends or family.

### **Was there a perceived danger of death?**

Conceivably, the evidence shown here of people helping strangers could be explicable simply in terms of the danger being (perceived to be) passed. In other words, once the bombs had exploded, perhaps people felt that there was no longer a threat of death; hence the help they gave was personally risk- or cost-free. If this is the case, the present evidence could easily be accommodated by the ‘mass panic’ model. If on the other hand there was still a perceived danger after the explosion, the widespread helping behavior noted above is more consistent with a resilience approach to mass emergency behavior, and with self-categorization theory in particular.

In the contemporaneous *newspaper accounts*, 31 eyewitnesses reported experiencing fear or observing it in others; and 70 of them reported thinking they might die.<sup>10</sup> This figure of around 50% perceiving a threat of death is noteworthy *prima facie* evidence that people close to the explosions still felt in danger even after the bombs had gone off. Indeed this makes sense; for an unexpected explosion is likely to make people feel less safe immediately afterwards as it renders the world much more dangerous and unpredictable.

In the archive *personal accounts*, there were 89 total reports of fear: 39 self-reports of own fear (and only four denials of fear), and 50 reports of observed fear in others (and only one denial). There were in addition a total of 68 reports of anticipations of death: 44 said (and only one denied) they thought they might die; and 24 said (and only one denied) that they could see others thought they might die. The personal accounts are also useful for the details they provide of why people felt in danger even after the bombs had gone off. Possible sources of death mentioned by survivors included the tunnels collapsing, collision with an oncoming train, smoke and fire, electrocution on live rails, and secondary explosions.

Among our *respondents*, there were six reports of fear (five of own fear, and one an observation of others), though it seems that this fear was not constant, and that other concerns may have been greater:

My initial feelings of anxiety did turn to being scared early on but when it became obvious that I would have to ensure my colleague got home the challenge of that overtook and feelings of worry or fear I had. (LB 16)

Twelve of our respondents were explicit that they thought they might die, and nine of these (plus one who didn’t feel in danger himself, LB 6) said that others appeared to think

they might die. Again, possible sources of death cited included smoke (two respondents), more bombs going off (six), suffocation (one) and fire (two). It is also interesting and important to note that there was little difference in proportions between survivors (seven out of nine thought they might die) and witnesses (five out of ten thought they might die) in the expectation of death, making the point that objective proximity to the bombings wasn't necessarily the best predictor of subjective danger.

### **Common fate and unity**

Evidence that there were feelings of common fate (reflecting the shared danger) and hence of unity in the crowd would be consistent with the self-categorization approach proposed here, according to which survivors helped strangers due to a common identity.

In the contemporaneous *newspaper accounts*, there were seven references to unity from witnesses and survivors. However, while some witnesses described isolated individuals who behaved in ways apart from the rest of the crowd (e.g., ignoring others), there were no statements from survivors or witnesses referring to crowd disunity, individualism or fragmentation.<sup>11</sup>

In the archive *personal accounts*, eleven people (ten survivors and one witness) describe feeling a common fate with others caught up in the bombing. Nineteen (five 'common fate' people plus 15 others) said they felt a sense of unity with others during the event. (There were also a number of references to the 'Blitz spirit', a cliché referring to unity and resilience among those surviving the air attacks on Britain by German bombers during the Second World War.) However, while these numbers are again small, it is important to note that no survivors or witnesses contradicted them by describing disunity, conflict or individualism in the crowd, or otherwise denied that there was a common fate or sense of unity.

It was only in the primary data of *respondents' accounts* that survivors and witnesses were actually asked about feelings of unity; this was not a topic on the agenda of those gathering the other data. Among respondents, references to unity in the crowd were not only typical but also highly elaborate.

Thus eleven respondents (nine of our twelve interviewees plus two of our additional seven email-only respondents) were explicit that there was a strong sense of unity in the crowd; i.e. that they felt it themselves (nine of them) and/or saw it in others (nine of them). Indeed respondents sometimes mentioned this before the topic was introduced by the interviewer. They also used a variety of their own terms to describe the experience—'unity', 'together', 'similarity', 'affinity', 'part of a group', 'everybody, didn't matter what colour or nationality', 'you thought these people knew each other', 'teamness'[sic]. These were in turn associated with emotional references to others in the group, e.g. 'warmness', 'vague solidity', 'empathy'. Such rich descriptions were sometimes complemented by numerical ratings that some of them were able to provide for the strength of this feeling of common identity (8/10, 9/10, 100%, 10/10). Moreover, some



speakers explicitly contrasted this positive feeling of unity in the emergency with the unpleasant sense of competition and atomization in relation to other individual public transport users they experienced ordinarily:

Int: Can you say how much unity there was on a scale of one to ten?

LB 1: I'd say it was very high I'd say it was seven or eight out of ten.

Int: Ok and comparing to before the blast happened what do you think the unity was like before?

LB 1: I'd say very low—three out of ten, I mean you don't really think about unity in a normal train journey, it just doesn't happen you just want to get from A to B, get a seat maybe.

Where respondents offered an explanation for the feeling of unity, they attributed it to their shared experience of threat and danger. Thus five of the interviewees who described unity linked this to the common experience of the bombing, as illustrated in the following extract:

I felt that we're all in the same boat together [ ] and then for the feelings that I was feeling could well have been felt by them as well 'cos I don't think any normal human being could just calmly sat there going oh yeah this is great [ ] it was a stressful situation and we were all in it together and the best way to get out of it was to help each other ... yeah so I felt exactly I felt quite close to the people near me. (LB 1)

Only one interviewee described not feeling unity with others.

### **Is unity associated with helping (or personal selfishness)?**

The self-categorization approach predicts that evidence of unity should at least to some extent be associated with helping behavior. In the contemporaneous *newspaper accounts*, three of the seven eyewitnesses who reported feeling unity also reported helping (each more than once), two reported being helped and five reported seeing others help. Only one who reported unity did not report help given, received or observed. Moreover, of the seven reporting unity, only two also reported receiving, participating in or witnessing personally selfish acts.

In the archive *personal accounts*, eleven of the 19 survivors or witnesses who described feeling unity with others said they helped someone else; eight of the 19 were helped by others; and twelve of the 19 observed help. While there are more reports of help than this (i.e. more people reported help than reported unity), the pattern is important. In short, where there was unity there tended to be help (but help didn't

necessarily predict unity). None of those 19 who reported seeing or experiencing unity reported any personally selfish acts.

Of our eleven *respondents* who described unity (felt or observed), ten described helping others, six described being helped, and ten described seeing others help each other:

Int: And was there this kind of sense of unity generally with people there who were walking as opposed to just...

LB 2: Yeah I think people were yeah I think people were just helping each other out giving directions and stuff.

Only two of the 11 who saw or felt unity described seeing others engage in selfish acts (the person who used his phone apparently rather than help others). Thus, for all three datasets, those who reported unity reported fewer total personally selfish acts than acts of help seen, given or received (see Table 1).

### **Concern for affiliates versus taking risks to help strangers**

We have seen (i) that helping was commonplace among survivors, (ii) that most survivors were amongst strangers and, (iii) that the perceived threat of death was present even after the bombs had exploded. Hence we can infer that, rather than panicking when faced with danger and the unfamiliar, at least some survivors helped strangers. This is more in line with the suggestion of SCT that the emergency brought people together rather than with the predictions of the other models.

However, the case for SCT against the affiliation model in particular would be further strengthened by (i) evidence that affiliates were not survivors' only or overriding concern; and (ii) any explicit examples of people putting themselves at further risk to help strangers.

In the contemporaneous *newspaper data* there were 12 reports of people showing concern for their friends and loved ones, but 21 reports of concern for others (strangers).

In the archive *personal accounts*, 24 people could be classed as expressing concern for affiliates: 22 reported trying to contact their family members as soon as possible and a further two reported emotional concern for family who were not in danger. Seven explicitly reported no such concern for affiliates. Twenty four expressed concern for strangers.

There were 12 examples of people being observed or reporting risking their own safety to help strangers. An example is people staying to help others when they were themselves were able to move away from what they perceived as a likely site of a further explosion or tunnel collapse.

Among both our witness and survivor *respondents*, there were three expressions of concern for family members not present – although two of there were cases of the

survivor wanting to reassure others that he was okay rather than reassuring himself that they were okay. Four more were explicit that they were not concerned for their families. Nine respondents expressed concern for strangers:

LB 7: I felt a lot of concern really, I felt really sorry for this poor guy that I saw sitting on the seats, this guy that had just lost his leg, I don't know it's hard to put it on a scale, I guess probably 10 cos that's the worst, you know that's the most sorry I have ever felt for anyone, so yeah.

Int: Ok and also did you feel concern for people who weren't there, like family and loved ones, thinking, 'oh what's happened to them I hope they are all right?'

LB 7: Um don't think so no.

Three of our respondents referred to the helping behavior of other survivors as 'brave' or 'risky':

This woman that came and talked to me, I think she was quite brave, she had been on the platform when it happened and they were just evacuating the tube station and she said she started seeing people walk out and she stayed in the tube station that I was there, for ages, and she was first aid trained so she was kind of running around trying to do what she could.  
(LB 7)

One witness described himself carrying on helping others despite his awareness of the possibility of secondary explosions. Another witness gave examples of where he had helped other people despite his perceived danger of death. (None of this includes accounts of the behavior of the emergency services which was also described as 'heroic' because of the risk of death—usually attributed to possible secondary devices.)

### **Discussion**

In describing the London bombings of July 2005, the term 'panic' was used by a number of witnesses and survivors—and, indeed, more so by commentators who did not witness events directly. Yet the concrete and detailed descriptions of survivors' behaviors tell the opposite story. Rather than personal selfishness and competition prevailing, mutual helping and concern was predominant amongst survivors, despite the fact that most people were amongst strangers rather than affiliates. There is also evidence that this helping behavior took place in spite of perceived danger rather than because people felt that they were now out of danger.

In many ways what has been described here reflects a familiar pattern. Comparisons with the World Trade Centre disaster of September 11<sup>th</sup> 2001 are obvious, not least because, like the London bombs of 2005, this was a terrorist attack with a large civilian casualty count. Analyses of 9-11 refer to the relative absence of panic (Blake, Galea, Westeng and Dixon 2004), the calm and orderliness of the evacuation (Proulx and Fahy 2003), and the frequency of helping and acts of ‘mundane heroism’ amongst strangers (Connell 2001; Tierney 2002).

### **Resilience in individuals, organizations and crowds**

In psychology, there is a long established developmental, clinical and psychiatric literature on resilience, individual differences in which are explained in terms of a combination of both genetic and acquired characteristics, including early experiences and attachments, repertoires of knowledge, as well as ongoing family, peer, school and work relationships (Williams 2008). This kind of framework has also been employed in organizational studies to explain how people adapt to stress (Haslam 2004).

In relation to disasters and terrorist attacks, there has until now been no group-level model of resilience to fill the gap between, on the one hand, accounts of individual resilience (e.g. Noppe, Noppe and Bartell 2006) and, on the other, accounts of the ability of organizations to improvise and function in the face of attack (e.g., Dynes 2003; Tierney 2002; Tierney and Trainor 2004). The analysis presented here thus offers a *prima facie* case for a new conceptualization of resilience in unstructured crowds in emergencies, which we have termed *collective resilience*. In the London bombings, survivor behavior was characterized by adaptive features, such as order, solidarity and mutual aid rather than the dysfunctional individualism and panic that characterizes psychosocial vulnerability. Importantly, it was the crowd itself that was the basis of the resilience displayed by survivors. In this account, then, the crowd is a psychosocial *resource*: a sense of psychological unity with others during emergencies is the basis of being able to give and accept support, act together with a shared understanding of what is practically and morally necessary, and see others’ plight as linked to our own rather than counterposed.

The concept of collective resilience also offers a new way of thinking about aspects of personal resilience and recovery in mass emergencies. Being part of a psychological crowd increases individuals’ chances of physical survival and psychological recovery, since the crowd enables them practically to realise goals they cannot achieve alone, including organizing the world around them to minimize the risks of being exposed to further trauma (see Williams and Drury 2009).

Collective resilience can be derived from the principles of self-categorization theory, and at least some of the data fits very well with the theory, and none actually contradicts it. While positive evidence for a common identity (in the form of references to unity in the crowd) is weak in the secondary data, there is no counterevidence (e.g. statements

about disunity, conflict or individualism). Moreover, here people were not asked about unity or for their reasons for helping others (or, at least, they are not reported). In the primary data, by contrast, there is clear evidence that the perception of common danger or fate created a strong sense of unity, at least for some people. The suggestion that a shared social identity arose from the common experience threat makes sense of the evidence of inclusive solidarity, including the risks that some people took to help strangers. The analysis of these data thus turns around one of the basic tenets of the mass panic approach—i.e. that threat of death in an emergency serves to divide people against each other.

The foregoing explanation for resilience amongst survivors of the London bombs is not meant to suggest that there will be equally enhanced unity and high levels of mutual aid amongst all participants in every emergency (Drury, Cocking, and Reicher 2009). But where there *is* mutual aid and other indicators of resilience in the crowd, we would argue that self-categorization processes are part of the explanation. In suggesting that self-categorization processes explained collective behavior following the London bombings, it is also necessary to consider the contribution of other possible psychological bases for mutual aid and resilience. It might be argued that there is some evidence here, albeit weak, for other models of crowd functionality, sociality and adaptive behavior in emergencies.

First, then, could the collective resilience displayed be explicable in terms of emergent norm theory? While survivors obviously communicated with each other, there is no evidence that extended milling was necessary before collective action could take place. Many people seemed to know what to do (‘morally’ and practically) without debate: help others and try to get out. Moreover, the data suggests the importance specifically of ‘feeling part of a group’ rather than ‘shared vision’ per se (cf. Turner 1996) in the subjective sense of unity.

Second, it seems at least some of the data on helping behavior described in the present paper might be explicable in terms of everyday societal norms. Yet in everyday circumstances it is perhaps more ‘normative’ in fact to compete with one’s fellow passengers for space on the London Underground rather than to help them (cf. Johnson 1987); indeed, as we have seen, this was the comment of some of our interviewees. On its own, the concept of norm merely redescribes behaviors rather than explains them, since it does not suggest when and how such normative behaviors might be instantiated in particular contexts.

Relatedly, there is also some evidence here consistent with the suggestion that people in emergencies act in terms of their given social roles (cf. Donald and Canter 1992; Johnson 1988). For example, male survivors and witnesses helped others more than women did. Arguably the actions of the train drivers in taking a lead in the evacuation is also evidence for the maintenance of social roles. However, the social role of most survivors of the bombs is unclear. Most were ‘commuters’; but what does this mean for

practice in these circumstances? Like the concept of norms, the notion of social roles may describe some behaviors but does not explain why one set of rules for behavior and not another will be operating at a given time.

Finally, data in support of the affiliation approach is patchy at most. Most people were amongst strangers; hence preexisting relationships could not have been the motivation behind most of the helping behavior. The evidence that people displayed at least as much concern for the strangers around them as they did about affiliates, and the lack of panic that people displayed despite being amongst strangers in a situation of extreme fear, both suggest that Mawson's (2005) account is incomplete.

### **Limitations of the data**

Part of the value of the present study is that it is to our knowledge the first social scientific attempt to analyse collective behavior, perceptions and motivations among survivors in the July 7<sup>th</sup> 2005 London bombings, the most serious bombing attack on mainland Britain since the Second World War. Yet the nature of the event—the impossibility of gathering contemporaneous data and the obvious sensitivity of the topic afterwards—means that the data are less than ideal. A more systematic examination of the ideas proposed here could be the subject of a further study, such as a comparison in solidarity (versus 'selfishness') between different crowd events varying in shared fate and unity (Drury, Cocking and Reicher 2009). Any such further research would need to address the particular methodological limitations of the present study, however. These fall into three areas.

A first set of problems has to do with self-selection in the sample. With such a painful topic as a terrorist attack, there is inevitably selectivity in who speaks and gets reported in the media and the courts, and in who comes forward to be interviewed for the research. Obviously, it is impossible to control for this, and it is possible that other stories of the event could be told if different people were interviewed.

Second, and relatedly, broader social pressures may have led to certain biases in the dataset as a whole. For example it could be argued that, in the context of a terrorist attack, there is a political imperative to tell a positive story of unity and heroism, and that other voices and versions of events have been marginalized. Yet it is clearly not the case that one homogenous version of events prevailed in the data set. There were numerous examples of the pathologizing discourse of 'mass panic' in the accounts of both survivors and witnesses, which contradicted their own accounts of their behavior. Common sense discourse, as has been observed, is a repository of contradictory ready-made explanations (Billig 1987).

A third possible limitation of the present analysis is that the reliance on self-reports means the data may reflect the operation of self-presentational biases. Clearly behavior in an emergency is a highly charged topic. To ask survivors whether they helped others or simply looked after themselves when others were in need is perhaps to invite them to

defend themselves. What tells against an explanation of this data solely in terms of survivors' desires to present themselves favourably, however, is that the analysis does not rely on self-reports of own behavior alone: witnesses' observations of *others'* behavior are consistent with the story that mutual aid was more prevalent than personal selfishness. On top of this, the fact that, in each of the different datasets analysed, people reported more instances of helping by others than helping by themselves tells against the idea that this data is simply an artefact of a self-presentational bias.

There is a final, general, point to be made on the quality of these data and the plausibility of the theoretical claims we have made. It is obvious to researchers of real world collective behavior such as mass emergencies that data in this field, which excel in ecological validity, will never achieve the 'completeness' and reliability of studies using controlled designs and measures, such as laboratory experiments or 'attitude' surveys with student samples. Yet what tells in favour of the present analysis is that this pattern of findings and its interpretation is fully in line with a growing body of well controlled laboratory and survey studies that likewise link group formation, identity, support and responses to stress (e.g. Haslam, Jetten and Waghorn 2009).

### **Implications**

The high levels of mutual aid amongst survivors and witnesses of the bombings supports the view that the public in general and crowds specifically are more resilient than they are given credit in the influential 'vulnerability' framework with its emphasis on 'risk' prevention and inevitable mental health problems (Wessely 2005a, b). The present study suggests that resilience within an emergency is not restricted to spontaneous coordination amongst the emergency services (cf. Rodriguez, Trainor and Quarantelli 2006; Tierney 2002), and that what has been called a 'therapeutic' or 'altruistic' community (Barton 1969; Fritz 1968; see Furedi, 2007, for a more recent discussion) can develop very quickly and without existing social ties beyond the common human capacity to categorize others with self (Turner et al. 1987). As such, these data make the case (i) for those in authority to encourage a common identity amongst the public in emergencies (instead of promoting a message of 'stranger danger') and (ii) for the inclusion of the public in the policymaking and practice of their own defence—not least through keeping them properly and practically informed, rather than excluded for fear of 'mass panic' (Dynes 2003; Wessely 2005a, b).

If informal collective resources are the basis of resilience within an emergency, it is possible they may operate in the clinical aftermath too. A number of survivors in this study mentioned that their membership of the group of 'survivors' continued to be psychologically important to them: 'I've been left most of all with this huge sense of solidarity' (Personal account 12)

Some of these survivors therefore reported seeking out other survivors; they suggested that sharing their feelings with each other in support groups helped in their

recovery. The finding that mutual support groups have some subjective wellbeing function for survivors is in line with recent studies demonstrating the reduction of stress through social identification-based social support (Haslam, O'Brien, Jetten, Vormedal and Penna 2005; Haslam and Reicher 2006). What is needed in future research is some test of the objective effects of such mutual support groups. The implications for aftercare, where, at the moment, there is an exclusive but controversial reliance on professional experts (Wessely 2005a, b), could be significant.

Taken to an extreme, it needs to be acknowledged that the rhetoric of 'resilience' can be used politically not only to boost (e.g., national) morale but also to minimize government and corporate responsibility by downplaying real hardships (Furedi 2007). The data analysed in this paper do not suggest an absence of distress, suffering or symptoms; nor do these findings serve to reify the collective resilience of the survivors as peculiar to Londoners or the British, as has been suggested in populist accounts (e.g. Elms 2005). (For example, the fact that Tierney (2002) found that New Yorkers also demonstrated such resilience is in line with the implication of SCT that the processes of mutual aid in adversity identified here are to some extent universal.) However, despite its potential dangers, it is argued here that a notion of resilience in unstructured crowds is necessary to counter the currently dominant vulnerability framework which not only neglects the human capacity for collective survival in the face of disasters but threatens to undermine it.

### Notes

- 1 The term 'vulnerability' is also used in the field of disaster research to refer to the structural or geographical (i.e., physical) susceptibility of some populations to such disastrous events as floods, hurricanes and earthquakes (e.g., Comfort 1990). In the present analysis, however, we are concerned with the *psychosocial* conception of vulnerability—as used in US based disaster research (Dynes 2003), UK disaster mental health strategy (Wessely 2005a, b), and critical sociology (Furedi 2007).
2. Given the timeframe of community (re)construction in the postdisaster recovery period (i.e., days and months rather than the minutes or hours it takes for the occurrence of the disaster itself), it might be thought that research on unity and support in this field would find evidence for the role of extended interaction in the development of such sociality. Yet, so far as we are aware, there is little reference in this literature to ENT or its principles (e.g. Comfort, 1990; Kaniesty and Norris 1997; Paez, Basabe, Ubillos and Gonzalez-Castro 2007; see Drury and Winter 2004 for a review).
3. <http://www.sussex.ac.uk/affiliates/panic/lb/index.htm>
4. <http://www.londonprepared.gov.uk/index.jsp>



5. As mentioned, there is undoubtedly duplication within the newspaper data. There is probably some overlap between survivors and witnesses in the contemporaneous newspaper accounts and the other data. However, the newspaper data are likely to include accounts from people not captured in the other datasets. Thus we can plausibly conclude that 146 is an underestimate of the number of people giving accounts in this study.
6. The category 'no panic' was not coded in this dataset, and 'orderly' was coded instead of 'calm'.
7. [ ] denotes material edited from the transcript for reasons of space.
8. Helping given to others was the only variable in the personal accounts for which a statistically significant gender difference was identified: men were more likely to report instances where they had helped others ( $M = 3.50$  people helped) than were women ( $M = 1.95$ ),  $t_{38} = 2.57$ ,  $p = 0.01$ .
9. See also National Institute for Clinical Excellence *NICE Guidelines on PTSD*. (2006) Available at <http://www.7julyassistance.org.uk/downloads/Affected%20by%20the%20London%20bombings.pdf>, last accessed 6<sup>th</sup> September 2007.
10. Fear and expectation of death are coded separately, since it was clear that some people thought they might die yet were not actually afraid (or, at least, did not report fear).
11. In the accounts of journalists, politicians and other commentators, on the other hand, there were 83 references to unity as well as numerous references to the resilience of the UK or London identity. Given the political context, such talk might be understood as a call to unity rather than a description of observed unity, however.

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