# Review Article The Psychology of Crowd Behaviour

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This review describes the social identity approach to crowd behavior. Research based on the social identity approach to crowds has grown significantly in the last 20 years, both quantitatively and qualitatively. I organize the new research into three sections. Under 'crowd situations, events, and experiences', I consider the recent findings on crowd density behaviors, heightened emotion in crowds, mass gatherings health, and crowd events that function to strengthen group identity. The second section covers research on behavior in emergencies and how models of crowd behavior have shaped policy and practice in emergency response. The third section, 'contentious crowds', describes the recent research on psychological change in collective action, 'public order' policing, and social influence. The increased number of practical applications demonstrates that the social identity research on the psychology of crowd behavior has value in addition to the advances it has made in terms of theory.

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# Introduction

This article reviews current thinking and theorizing on the psychology of crowd behavior. The fundamental question addressed in this topic area is: how is collective behavior possible? How does a mass of individuals act as one? This question was first answered convincingly over 40 years ago with the concept of social identity. According to the social identity approach, sharing a definition of identity allows people to act in terms of common group norms. In the last 20 years, however, the social identity approach has enabled the development of explanations of a wide range of crowd phenomena, beyond collective behavior per se. The same period has seen the number of publications on crowd behavior and related topics multiply. Moreover, although this review is concerned with psychology, it's important to recognize that there has been some cross-fertilization, including an interest in the social identity

approach from scholars of crowds in pedestrian modelling and engineering. Alongside this growth in research and theory are a growing number of practical applications of the social identity approach to crowds.

## Scope of the review

The review focuses on developments over the last 20 years. However, since the topic of crowd behavior has not previously featured in this series, I will contextualise these relatively recent developments by briefly covering the older research for each topic area. A second reason for referring to older work is that, despite the success of the social identity approach, the topic of crowd psychology is one plagued by 'zombie ideas' – that is, ideas that have been refuted by extensive empirical evidence but still refuse to die, as they are continually reanimated by deeply-held assumptions, prejudices, or both<sup>[1]</sup>. Because of this, the new research has had to do battle repeatedly with old ideas – whether versions of 'mob mentality', mass panic, or contagion – that keep cropping up in academic, and policy/ practitioner contexts, as well as in public discourse.

The review begins with a section covering the social identity approach as applied to crowd behavior. The central sections of the review present three broad areas where the social identity approach has been developed: crowd situations, events, and experiences; behavior in mass emergencies; and then a return to the topic of contentious crowds, with which the subdiscipline first began. The first of these three areas concentrates on behavior and experiences within the crowd itself. In the two other topic areas, and in particular in the explanation of crowd conflict, we apply a crucial insight made with the development of the social identity approach in the 1980s and 1990s: many crowd events are *intergroup relationships*, between the crowd itself and another group (typically those policing or managing the crowd). This relationship between groups is just as important as the crowd's identity and norms in the explanation of what people experience and how they behave in crowds.

# **Crowds: The Social Identity Approach**

Theoretical approaches to the psychology of crowd behavior might be divided into three phases. The first phase is that of classical crowd psychology. This approach arose in late nineteenth century France in response to the 'social problem' of the crowd. It stressed the malign influence of the crowd on the intelligence and self-control of the individual. On the one hand, so-called 'group mind' approaches suggested that crowds transformed individuals into 'barbarians', through a loss of self or individual personality, which was replaced by a primitive 'racial unconscious' (e.g., Le Bon<sup>[2]</sup>). On the other hand were approaches that emphasized how the crowd merely accentuated basic drives in the individual<sup>[3]</sup>. Both types of approach emphasized a primitive psychology, therefore, and assumed that crowd behavior tends towards indiscriminate violence.

The second phase of crowd psychology, beginning in the 1950s, emphasized interaction and meaning exchange between people, drawing on interactionist group psychology<sup>[4]</sup>. This approach made significant progress in explaining the meaningful patterns of behavior observed in even violent crowds, and the variety of crowd behaviors (including non-violent crowds), which were conceptualized as a function of new norms. But the approach could not explain why some behaviors and not others became norms or how these new norms came to be quickly shared across a crowd<sup>[5]</sup>. Moreover, the interactionist approach to crowd behavior while influential in sociology was largely ignored in social psychology. Instead, until the late 1990s, the dominant model of crowd behavior in psychology was de-individuation theory<sup>[6]</sup>, itself little different from its ancestor classical crowd psychology.

# Social identity theory, self-categorization theory, and the social identity model of crowd behavior

The social identity approach to crowd behavior represents the third phase of theory. The social identity concept was first developed in Tajfel & Turner's<sup>[7]</sup> social identity theory as a central construct in an explanation of behavior between groups. A key idea was that as well as personal identities, individuals have multiple social identities based on their group memberships, and that these drive cognition, affect, and behavior. The social identity concept was further developed into the basis of a theory of groups, in the form of self-categorization theory<sup>[8]</sup>. According to self-categorization theory, identities comprise categorizations of self and others that can become salient in different group contexts. For this approach, 'social identity is the cognitive mechanism which makes group behavior possible'<sup>[9]</sup>, since each social identity has a set of group norms which characterize it. Conforming to these common norms, people behave as a group.

The key idea in the social identity approach, that we each have multiple identities that each provide a basis for normative conduct, was central to the model of crowd behavior developed by Reicher<sup>[5][10]</sup>. The model was developed through Reicher's study of the St Pauls riot, still perhaps the most important and influential study of crowd behavior in psychology. Thus, against Le Bon, Reicher found evidence that

people do not *lose* their sense of self in the crowd; rather they *shift* from personal identity to the identity they share with others in the crowd. This means, therefore, not loss of behavioral control, but rather a shift to collective definitions of appropriate conduct – group norms. Thus, in the St Pauls riot, the targets of the crowd were not arbitrary but rather reflected the definition of social identity shared by the crowd.

Crowds are types of groups, but differ from small groups in certain crucial respects. In a novel situation like a riot, for example, what it means to be a member of the social category – and how to act – cannot always be straightforwardly applied from participants' existing knowledge of the category (referent informational influence<sup>[8]</sup>). Instead, situation-specific norms are inferred from the behavior of any fellow group member, insofar as the behaviors are consistent with their common identity<sup>[5]</sup>. This selective influence process helps explain not just the selectivity of targets and limits to behavior found in even the most violent riot, as discussed, but specifically which behaviors generalize and which are suppressed by the crowd. Thus in the St Pauls riot, throwing stones against police was a new behavior which was quickly taken up by others following an initial instance, but throwing a stone at a bus was criticized and did not spread.

# The 'three transformations' of crowd psychology

Reicher<sup>[11]</sup> consolidated much of the existing thinking on social identity and crowds with the more recent research through an overarching framework, called the 'three transformations'. This provides a conceptual framing for most of the topics, models and research findings in this review.

The first 'transformation' is the *cognitive* shift from personal to group identity, as described in the earliest statements of self-categorization theory. This shift therefore entails applying the stereotypical features of the group to oneself and therefore adopting the group's norms, values, and interests as one's own<sup>[8]</sup>. When group identity is salient, group members are more likely to be see others in ingroup-outgroup terms, to be influenced by messages that are consistent with ingroup norms, and to experience the success of the group as 'our' success, even if there are personal costs to achieving it. More than these social perceptions, however, the cognitive transformation has been found to condition all experience. Thus, even physical experiences that we would normally experience as unpleasant (such as extreme cold and noise) are evaluated more positively to the extent that they are seen as affirming group identity (e.g., Pandey et al.<sup>[12]</sup>, Shankar et al.<sup>[13]</sup>).

The second transformation is *relational*. Here, it is not just that the individual categorizes themselves in a particular way, but also that this is shared amongst those co-present and the individual therefore believes

that these others see him/her as a fellow group member<sup>[14]</sup>. When there is such *shared social identity* in a crowd, others present are seen as part of a common extended self. Under these conditions, there will be greater intimacy between people, trust, expectations of support, desire to provide support, interaction, expectations of shared goals, felt safety, confidence/efficacy, and reduced disgust (Hopkins et al.<sup>[15]</sup>, Neville & Reicher<sup>[14]</sup>, Reicher et al.<sup>[16]</sup>). Trust, expected support, shared goals and other effects of the relational transformation mean there will be greater capacity for coordination (acting as one) between people in a crowd who share identity than when there is no or low shared identity.

Shared social identity forms the basis of a useful distinction between *psychological and physical crowds*<sup>[11]</sup>, that cuts through the different crowd typologies that have been offered in the past (e.g., Brown<sup>[17]</sup>). A *physical* crowd simply refers to people gathered in the same space. A *psychological* crowd is where people in a physical crowd share social identity. A physical crowd might comprise no psychological crowds, one psychological crowd, two psychological crowds (e.g., two groups of football supporters in the same stadium), three psychological crowds (e.g., a multi-genre festival), or more. This simple distinction helps make sense of the level of spontaneous coordination across a very wide variety of crowd phenomena – from Mexican waves to riots and mass evacuations – that are not observed in, for example, the crowds typical of shopping centres or large railway stations.

The third and final transformation is called *affective* This is a consequence of processes entailed by the two other transformations. Support from fellow ingroup members *empowers* participants in a crowd to enact their identities in ways that they can't normally do – a process in non-contentious crowds called collective self-realization – which feels intensely positive (Hopkins et al.<sup>[18]</sup>). There is more to say on crowds and emotions, which I cover below.

#### The elaborated social identity model

The three transformations framework largely focuses on psychological processes and relations within crowds. However, a key insight of the social identity approach is that many crowd events involve relationships between the crowd and another group – often the police<sup>[5][10]</sup>. In the 1990s and early 2000s, Reicher's social identity model, which explained the determination of collective behavior, was developed into the *elaborated* social identity model (ESIM)<sup>[19][20][21]</sup>, which explained the intergroup dynamics of crowd behavior – that is, how conflict happens through identity *change* in crowd events.

According to the ESIM, conditions necessary for the emergence and escalation of conflict between a crowd and another group (such as the police) are two-fold. First, there is an asymmetry of categorical representations between crowd participants and this other group; for example, crowd participants might see their protest actions as legitimate expression of traditional rights, but police might see it as a threat to 'public order'. Second, there is also an asymmetry of power, such that the police outgroup is able to physically impose its definition of legitimate conduct on the ingroup of crowd participants (for example, by dispersal). If these conditions are in place, then there is a dynamic. If the outgroup action is experienced by crowd participants as illegitimate (e.g., 'an attack on our rights to protest'), it legitimizes crowd action against it (e.g., retaliation). Where that outgroup action is also experienced as indiscriminate (i.e., as an action against 'everyone' in the crowd), then the sense of common fate leads to a common identity in a previously heterogenous crowd, superseding any prior internal divisions. Feelings of consensus and expectations of mutual support for ingroup normative action thereby engendered by this new common identity empowers members of the crowd actively to oppose the police outgroup. Such crowd action against the police may confirm police fears of the inherent threat of the crowd, leading to an escalation of riot-control behaviors.

The action of the crowd when in this empowered position may embody the subordinate group's definition of legitimate practice, a definition which they are not normally able to express in everyday life – whether fighting back against the police or occupying some land as part of a campaign. This enactment against normally powerful outgroups is further empowering and is therefore a positive emotional experience. In the context of contentious crowds in conflict with other groups, this identity-realization process is referred to as collective self-objectification<sup>[22]</sup>. Outcomes for participants may be a more radical world-view and subsequent opposition to the authorities, through the re-positioning they experienced ('being treated as oppositional')<sup>[19]</sup>.

The ESIM conditions are relatively rare, and by far the majority of crowd events, including protest crowds, do not involve conflict and change. However, this pattern of intergroup dynamics has been important in helping us to understand the very nature of identity. Social identity is not just a description of our characteristics, but is also a definition of their social position in relation to others, alongside the actions that flow from that position<sup>[23]</sup>. The ESIM has also afforded hypotheses about how conflict might be avoided, described below under 'Public order policing'.

# **Crowd Situations, Events, and Experiences**

The focus of the early body of social identity research on crowds (1994–2005) was largely on contentious events and conflict (urban riots, football crowd 'disorder', and violent or confrontational protest events), in part reflecting the concern to counter influential irrationalist theories and narratives of crowds, and also reflecting the topic areas and debates that had predominated till that point. This work served to position the crowd coherently within the broader area of group processes (and indeed intergroup relations) in social psychology, as well as to advance the idea that some violent crowd events (such as riots) could be considered as cases of collective action – i.e. purposive. Perhaps the most striking development in crowd behavior research in the last 20 years, however, has been the expansion of the social identity approach to non-crisis crowds. While some of the research described below focuses on the experience of being part of such crowds – (dis)comfort and positive emotion – other work has examined the after-effects – on wellbeing and on strengthening identity – of experiences and activities in some types of crowds.

# From personal space to shared social identity space

For decades, in part motivated by societal concerns about a 'population explosion', research focused on the aversive and negative effects of density. However, some studies also identified positive experiences of crowding<sup>[24]</sup> which therefore made it difficult to posit generic effects of density. The 'personal space' concept<sup>[25]</sup>, focusing on interpersonal situations, was able to account for some of the variability across demographics for levels of comfort (vs discomfort) in proximity. However, it still did not fully explain variability within the same individual. For example, the same person might enjoy or avoid equal levels of density, depending whether it's a music event or on public transport and depending on who else is in the crowd.

Based on self-categorization theory, Novelli et al.<sup>[26]</sup> hypothesized that variations in the inclusiveness of self-categorization could account for within-person variations in the aversiveness or otherwise of different levels of proximity, since the proximity of fellow ingroup members would comprise a sharing of social identity space, rather than an intrusion into personal space. The hypotheses were supported across two experiments. In each case, participants expected to have a conversation with someone they were told was in the same (arbitrary) category as themselves or someone not in their category. In each case, participants placed their chair closer to the expected ingroup member than the other. These findings

were reproduced in a correlational study in which participants were asked to imagine being in a crowded train carriage with football fans. Here, greater shared social identity with the football fans correlated negatively with a greater desire for distance from others in the crowd<sup>[27]</sup>.

Novelli et al.<sup>[28]</sup> complemented the lab studies with two field studies of crowd events where a shared social identity was expected. On a protest march, identification with the crowd predicted central (and most dense) location in the crowd. At a crowded outdoor music event, people who felt psychologically part of the crowd tended to report being comfortable even when they judged the event to be very densely crowded, whereas people who felt less psychologically a part of the crowd reported feeling more uncomfortable with greater self-estimated density.

Dense crowds can also be dangerous – some sources say anything above five people per m<sup>2</sup> is unsafe<sup>[29]</sup>. The social identity approach would predict that where there is shared identity, this will mitigate the feeling of being unsafe that occurs as density increases. This was the finding in a survey of pilgrims at one of the most crowded locations on the annual Hajj at Mecca, at the Grand Mosque, in a study by Alnabulsi and Drury<sup>[30]</sup>. Morton and Power<sup>[31]</sup> found a similar result for music events. A mechanism identified in the Hajj study was expected support – people felt safe even in high levels of density because they believed that others around them, as fellow group members, would help them if needed. This pattern can help explain part of the reason why audience members gravitate to the most crowded parts of many events – not only for the atmosphere, but also because they don't feel as unsafe as objectively they should do.

This evidence on the role of shared identity in spatial experience and behavior matters for how we understand, and plan for, pedestrian flow. Specifically, the theory and evidence above suggests that crowd flow would be different in physical versus psychological crowds. This was tested in field experiments by Templeton et al.<sup>[32][33]</sup>. In the studies, people in a walking crowd with a salient common identity stayed in greater proximity to each other than people in a similar crowd without a salient common identity. In addition, subgroups or clusters of people within the first crowd were larger than the clusters within the second crowd. The crowd with a salient common identity was also slower, which was partly explicable in terms of people trying to stay together and interact in their subgroups.

In the past, modellers of pedestrian movement have assumed either a crowd as a homogeneous mass or as mass of individual agents<sup>[34]</sup>. Today, however, there is increased recognition in disciplines concerned with modelling pedestrian behavior – engineering, scientific computing, physics – of the need to take

into account contemporary social psychology (e.g., Adrian et al.<sup>[35]</sup>; Sieben et al.<sup>[36]</sup>), and the extent of shared social identity in particular, for more realistic computer simulations. Templeton et al.<sup>[34]</sup> <sup>[37]</sup> suggest some of the properties that agent-based models should have if they are to more accurately model the systematic variability in pedestrian flow in crowds that comes from variations in shared social identity. Thus first each agent should have capacity for both a personal identity and a social identity that is shared with other agents. Second, agents should be able to recognize when other agents in the crowd have the same identity as them or not.

# Emotions can be heightened in crowds

Crowds are often associated with strong positive emotional experiences – of joy or exhilaration. A long standing view in psychology (and common-sense discourse) is that the emotionality associated with crowds is linked with the supposed irrationality and loss of behavioral control inherent in crowds (e.g., Neville & Reicher<sup>[14]</sup>). This view reproduces a wider assumption in psychology that emotion competes with cognition (an assumption also found in the interactionist approaches to crowd behavior; Berk<sup>[38]</sup>; Turner & Killian<sup>[4]</sup>). Modern psychology rejects the rigid distinction between affect and cognition, noting that affect involves beliefs and reasoning (e.g., Lazarus & Folkman<sup>[32]</sup>). Hence emotions spread between people not through primitive, pre-cognitive contagion<sup>[40]</sup>, but through appraisal processes involving cognitions regarding the other's identity and source of their emotion<sup>[41]</sup>, including in crowds<sup>[42]</sup>.

The affective transformation, described earlier, helps make sense of the evidence that experientially people often report more intense and powerful emotions in crowd events than when alone. In rendering these experiences understandable and meaningful, the social identity approach offers a refreshing new way of thinking about the relationship between crowds and emotions.

There is good support for the key aspects of the hypothesized affective transformation. First, people commonly report solidarity and support in crowds where they share identity with others, such as religious mass gatherings<sup>[30][15]</sup> and music festivals<sup>[14]</sup>. Such support feels good<sup>[18]</sup>. Second, the process of collective self-realization/objectification, whether in the form of successes at collective action events<sup>[22]</sup> or sacred practices at religious mass gatherings<sup>[18]</sup>, has been found to be associated with emotions such as exhilaration and joy. People feel stronger together, and that feels good<sup>[43]</sup>. Indeed, they

*are* stronger together, and their capacity and agency is reflected back to them through objective changes to the world taking place through their own actions, which feels good.

Further, one of the features of being in a crowd where everyone feels the same, especially for groups who are normally isolated or subordinate, is the validation it can provide. Emotional validation occurs through shared social identity, and makes an emotion more intense, confirming and augmenting it<sup>[15][14]</sup>. Hence, it is not only joy that can be heightened in crowds, but also anger, hatred, fear, disgust, sadness, and grief. While the work on spatial behavior and emotion focuses on experiences within the crowd, other work has looked at how these crowd processes can have impacts on participants subsequent to the crowd event.

## Mass gatherings health

The World Health Organization characterizes 'mass gatherings' as events where 'the number of people attending is sufficient to strain the planning and response resources of the community, state or nation hosting the event'<sup>[44]</sup>. The new discipline of mass gatherings medicine was prompted by a desire to mitigate the health threats – principally infectious diseases but also risks like heat exhaustion and crowd crushes – associated with international mega-events, such as the Hajj, the Olympics, football World Cup, and Glastonbury music festival<sup>[45]</sup>. Studies of mass pilgrimages from a social identity perspective (see Hopkins & Reicher<sup>[46]</sup>) prompted a shift towards a new mass gatherings health<sup>[47]</sup>, which was aligned with the 'social cure' approach (see Haslam et al.<sup>[48]</sup>), which provides a framework to explain how groups (including crowds) could be good for you: Perceived support, meaning, connection, and efficacy all predict health and wellbeing, and all are functions of shared social identity<sup>[48]</sup>.

The Magh Mela is an annual Hindu festival in Northern India. Millions of people gather in a densely populated 'tent city'; sanitary conditions and facilities are limited; there is no heating; people have to sleep on the ground; and there is constant loud noise. Tewari et al.<sup>[49]</sup> carried out a panel study surveying attendees and a matched sample before and after the pilgrimage. Pilgrims reported a longitudinal increase in wellbeing relative to the matched sample who did not participate. What could explain this effect? Religious practices can have wellbeing benefits<sup>[50]</sup>, but research on attendance at music events also documents some self-reported wellbeing benefits. Some of these suggest the importance of the social connections made with others at such events as the basis of this wellbeing effect (e.g., Packer & Ballantyne<sup>[51]</sup>; Weinberg & Joseph<sup>[52]</sup>). Therefore there appears to be something about being part of the

group or crowd at these events, over and above any beneficial effects of religion or music itself, that contributes<sup>[53]</sup>.

In a review paper synthesising findings from their programme of work on the crowd psychology of the Mela, Hopkins and Reicher<sup>[46]</sup> suggest that the potential health benefits of mass gatherings can be conceptualized in terms of the three transformations. First, for the cognitive transformation, there may be group norms associated with the event that people adhere to (such as the exercise involved in walking to the ritual bathing at the Mela). Second, for the relational transformation, shared social identity at such an event means perceived and received social support. Thus Khan et al.<sup>[54]</sup> found that shared identity amongst pilgrims had an indirect effect on changes in reported wellbeing, through perceived support. Finally, in relation to the affective transformation, we have already seen (above) that crowds events can be associated with strong emotions like joy, and we also know that such positive emotions can contribute to well-being<sup>[55]</sup>. Koefler et al.<sup>[56]</sup> found that perceived shared positive emotion was strongly highly related to continued happiness a week after attending live music events.

Hopkins and Reicher<sup>[46]</sup> also argue that the same transformations can help explain the health risks documented at mass gatherings. At the cognitive level, there could be group norms around the acceptability of risk-taking behaviors (such as drinking alcohol)<sup>[57]</sup>. At the relational level, reduced disgust at ingroup members' bodily fluids could lead people to share drinks, for example. At the affective level, positive emotional experiences could lead people to ignore signs of their own ill-health and exhaustion.

This work also has practical implications for health communication at mass gatherings<sup>[46]</sup>. First, health advice should be congruent with group norms and values. For example, instead of advising people not to share drinks (which might go against communal norms) stress the need to care for others' health and wellbeing. Second, the advice should come from sources perceived as ingroup to the crowd, in order to be more persuasive.

# Crowd events that function to strengthen group identity

In his studies of traditional societies, Durkheim<sup>[58]</sup> suggested that certain kinds of gathering involving coordinated ritual could bring about an intense emotional state among participants ('collective effervescence') that strengthened participants' commitment to the collective and indeed to the society itself. Broadly in line with this idea, Páez et al.<sup>[59]</sup> found that folkloric marches and protest

demonstrations were associated with strengthened sense of identity in the relevant group, and that perceived emotional synchrony with others accounted for this. A meta-analysis of 34 studies, including of community celebrations, protest demonstrations, religious events, sports gatherings, and music festivals found that collective emotions correlated (including longitudinally) with participants' self-reported investment in the group (i.e., ingroup commitment), as well as with the identification with an extended ingroup<sup>[60]</sup>.

Clingingsmith et al.<sup>[61]</sup> tested the idea, suggested in a number of places – including the autobiography of Malcolm  $X^{[62]}$  – that attending the annual Hajj strengthens a feeling of unity with fellow Muslims. In an ingenious natural experiment, they sampled applicants to Pakistan's lottery to attend the Hajj. Afterwards, compared to non-attendees, attendees were more likely to observe global Islamic practices (such as prayer and fasting) but less likely to engage in local practices and beliefs (such as the use of amulets and dowry); more likely to believe in equality and harmony among ethnic groups and Islamic minorities; more likely to have favourable attitudes toward women (including greater support for female education and employment). Clingingsmith et al.<sup>[61]</sup> suggested that the opportunity for interaction with different nationalities and cultural groups would explain this effect of the Hajj on attendees – in line with the contact hypothesis<sup>[63]</sup> – but their study did not test this explanation.

In a study of the Mela, Khan et al.<sup>[64]</sup> investigated the role of the relational and affective transformations in explaining some of the identity changes documented by Clingingsmith et al.<sup>[61]</sup> and others. They again compared attendees and non-attendees, but in a panel design, and found that the former (but not the latter) reported strengthened social identification as a Hindu and increased frequency of prayer rituals. Based on measures taken during the pilgrimage, perceptions of shared social identity (relational transformation) with other pilgrims and being supported to carry out sacred rituals (collective selfrealization) helped predict the changes in participants' identification and behavior.

A cross-sectional survey of attendees of the Hajj by Alnabulsi et al.<sup>[65]</sup> found that, in line with contact theory, perceived cooperation among pilgrims indirectly predicted more positive attitudes to other groups (as well as enhanced Muslim identification), via identification with the crowd. In line with 'collective effervescence' and social identity explanations, positive emotional experience and the perception that the crowd embodied the Muslim value of unity predicted both self-change measures via identification with the crowd.

While many of the studies on the strengthening of group identities have examined religious crowd events, there is evidence that secular mass gatherings can have similar effects. Thus in a panel across secular mass gatherings, Yudkin et al.<sup>[66]</sup> found a strong transformative effect for feeling more socially connected to one's community, culture, or history.

# **Behavior in Mass Emergencies**

Across psychology, policy, and popular opinion, a longstanding and still widespread view about typical behavior in emergencies is for excessive fear to overcome normal self-control, leading to disorderly, impulsive and/or competitive behavior<sup>[67]</sup>. Crowds are said to be particularly prone to such 'panic', which spreads through 'contagion'. However, numerous case studies (e.g., Donald & Canter<sup>[68]</sup>, Gershon et al.<sup>[69]</sup>) and reviews of incidents (e.g., Fritz & Williams<sup>[70]</sup>, Sheppard et al.<sup>[71]</sup>) conclude that there is little evidence that uncontrolled or competitive behaviors spreading across crowds during emergencies. In fact, there is now consistent evidence, across a variety of kinds of emergencies and disasters, that help and cooperation is common among those caught up in emergencies (e.g., Drury<sup>[72]</sup>; Grimm et al.<sup>[73]</sup>).

Some of the evidence of help and cooperation in emergencies can be explained by existing social ties – of family, friendship, or social capital (e.g., Johnson<sup>[74]</sup>). But cooperation and helping among strangers in emergencies has also been documented (e.g., Clarke<sup>[75]</sup>). Given that assisting others may delay one's own escape, the rational choice might seem to be to focus on one's own exit. Therefore, the evidence of help and cooperation – and coordinated behavior more broadly – among strangers requires a social psychological explanation. In other words, in mass emergencies, how is collective behavior possible? The social identity approach offers an answer to this question.

# A social identity model of collective resilience in emergent groups

A study of survivor experiences and behavior during the 2005 London underground bombings<sup>[76]</sup> provides the basis of a social identity account of collective behavior in emergencies. In the study, survivors commonly described seeing, receiving, and giving various forms of social support (such as sharing bottles of water and applying first aid), as well as examples of coordination (such as allowing others to go first as they filed out) which saved lives and contributed to an effective evacuation. Most of those who described witnessing or participating in supportive actions were among strangers, as they were commuters on their way to work. Turner<sup>[77]</sup> suggests that common fate (operating as comparative

fit) could be the basis of self-categorization as a group. This appears to be what happened in the London bombings. A sense of 'we-ness' was evident in accounts referring to that period after the bomb had exploded; and interviewees contrasted it sharply with the period before the explosions, where there was no sense of unity. Some interviewees used expressions such as 'all in the same boat', and several comments could be coded as 'shared threat'. This pattern of evidence indeed suggested that the shared situation operated as a criterion for categorizing other people in the bombed carriage as a group with self (rather than seeing them just as other individuals distinct from self). Defining self at the group level means self-interest and the boundaries of concern become extended to that level<sup>[78]</sup>. Thus, as expected, people reporting the sense of unity with others tended to report engaging in supportive and cooperative behavior.

By contrast to the notion of personal resilience as a capacity of individuals, the social identity model is of *collective* resilience as an emergent *process* located in the emergency or disaster itself<sup>[79][80][81]</sup>. In this account, collective resilience is defined as the way a shared identity arising from the emergency allows groups of survivors to express solidarity and cohesion, and thereby to coordinate and draw upon collective sources of support and other practical resources, to deal with adversity<sup>[82]</sup>.

This basic social identity explanation for emergent group behavior – that common fate leads to a new shared social identity and therefore to motivations to provide support to fellow group members – was further tested and supported in a comparative study of multiple emergency events<sup>[82]</sup> and with experiments using virtual reality technology<sup>[83]</sup>. Convergent evidence for the hypothesised process comes from survey studies of different populations affected by the earthquakes which took place in Emilia-Romagna, Italy, in 2012<sup>[84][85]</sup>.

The evidence on the existence and importance of cooperation and support among those caught up in an emergency is by no means to suggest that everyone involved cooperates or that all emergencies display equal degrees of help. Some emergency evacuations are characterized by a greater degree of individualistic behavior<sup>[86]</sup>; some stages of an evacuation may be characterised by competition (e.g., <sup>[87]</sup>).The social identity model of collective resilience suggests that there is little sense of common fate, an emergent shared social identity will not develop and therefore there will be less cooperative and helpful behavior and correspondingly more competition. The experiment using virtual reality technology found that participants with low social identity were more likely than those with high social identity to push others as they tried to evacuate<sup>[83]</sup>. The comparative study found that people who reported low or

vague levels of shared social identity with others in the crowd were less likely to report engagement in solidarity behaviors than those who reported high levels of shared social identity with the crowd<sup>[82]</sup>. More recently, in a case study of an incident when hundreds of people thought they were under attack from terrorists found that there was little shared understanding of the threat. Rather than a common fate, therefore, there was a highly fragmented perspective across the crowd. Emergent shared social identity was sporadic instead of widespread. The behavioral response was similarly fragmented, with competition and lack of support in evidence, as well as instances of cooperation<sup>[42]</sup>.

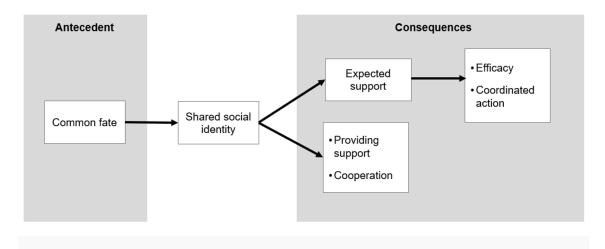


Figure 1. A social identity model of collective resilience in emergent groups

Based on the relational transformation, further cognitive, as well as behavioral, consequences of shared social identity in an emergency, beyond motivations to give support, can be predicted – see Figure 1. A questionnaire survey of survivors' responses to the 2010 Maule earthquake in Chile, using a large representative sample, predicted and found evidence for the pivotal role of expected support, which mediated between shared identity with other survivors on the one hand and, on the other, group efficacy and participation in coordinated support<sup>[88]</sup>. Expected support enables survivors to act as one in the group interest: they feel they will be backed up if they take action for fellow group members, and they can anticipate others' actions<sup>[72]</sup>. Ntontis et al.<sup>[81]</sup> and Alfadhli et al.<sup>[89]</sup> provide convergent evidence – from a flood and from experiences of Syrian refugees – that emergent identity can enhance group efficacy via expected support, as predicted.

## Models of crowd behavior in disaster prevention and emergency management

'Mass panic' and other representations of pathological public behavior in emergencies and disasters can operate as blaming devices employed after the event which serve to detract from other explanations – 'people died because they panicked and caused a crowd crush'. In fact, mismanagement of events or venues, not collective psychology has been shown to be a major cause of avoidable fatalities in many emergencies, including fires and crushes<sup>[90]</sup>.

The 'panic' account also provides a rationale for certain kinds of (in)actions as part of emergency preparedness and response. Specifically, if the public are assumed to be prone to 'panic', then the authorities or responders should restrict information about the emergency (the authorities themselves are supposedly immune from panic, perhaps because they are not in a crowd)<sup>[91]</sup>. One of the dangers of restricting information in an emergency for fear of public 'panic' is that people will not prepare or evacuate promptly enough. In fact, the main risk in many emergencies is not people trampling each other in their haste to leave, but the opposite. People often discount signs of an emergency<sup>[92]</sup>. Reasonably, perhaps, they believe that the threat isn't likely to happen to them (a calculation that only seems to reverse after recent experience of genuine self-relevant threats)<sup>[42][93]</sup>. Therefore, far from restricting information, it's important to inform the public about the threat in order to get them to evacuate in a timely manner<sup>[94]</sup>.

A second problem with restricting information in an emergency for fear of public 'panic' is that it risks damaging the public's relationship with the authorities and responders. Where the public believes that information is being withheld, they could lose trust in the authorities or responders, which means they will be less likely to listen or respond to information in the future.

A series of studies on the management of response to chemical, biological, radiological and nuclear (CBRN) incidents provides evidence for these points. Response to CBRN incidents involves mass casualty decontamination – including disrobing and showering. Carter and colleagues demonstrated the existence of assumptions about crowd panic in official guidance, incidents, and interview statements by responders<sup>[95][96][97]</sup>. The analysis also demonstrated that practices based on these assumptions (i.e., lack of information, shouting, threats) led to ineffective outcomes: anxiety and anger in the crowd, and refusal to engage with the emergency procedure.

Carter and colleagues' work also demonstrates the effectiveness of a more cooperative way of managing emergencies, that takes into account the earlier evidence on the psychology of collective resilience, as well as other lessons from the social identity approach to crowd behaviour. The revised procedure begins with the assumption that members of the public will typically want to cooperate. Second, based on the earlier work on policing and football<sup>[98]</sup>, the responders used communication to not simply provide information but also to create a relationship with the public. Field and online experiments and a field survey<sup>[99][100][101]</sup> found that, when responders provided practical information and support, the public were more likely to see them as part of their ingroup ('our professional responders'). Effective communication (perceived as empathic, informative, supportive, and open) helped create this superordinate ingroup which then motivated group-based action, including offering support to other members of the public. Using these procedures, the time taken for decontamination were significantly closer to the optimum than when using standard procedure. These ideas are now embedded in the training received by UK fire service personnel and part of the guidance of authorities around the world<sup>[35]</sup>.

# **Contentious Crowds**

The final section on new research returns us to the topic area that first prompted theories of crowd behavior, contentious crowds,<sup>[1]</sup> covering not only crowd conflict and violence but also crowds involved in campaigns and protests.

# Collective action and psychological change

The intergroup dynamics specified in the elaborated social identity model (see above) were first observed at protest and direct action events in the  $UK^{[19][22][20][102]}$  and football crowd conflict in mainland Europe<sup>[103][102]</sup> in the 1990s. In more recent years, evidence of dynamics consistent with the ESIM has been found in Hong Kong<sup>[104]</sup>, Chile<sup>[105]</sup>, and North America<sup>[106]</sup>, as well as further evidence for the same pattern in mainland Europe<sup>[107]</sup> and the  $UK^{[108]}$ .

Research in the last 10 years or so has provided more details of the identity change process specified by the ESIM and how new identities are sustained. Thus, Acar and Uluğ<sup>[109]</sup> showed that after a violent police intervention against the Gezi Park protests in Turkey, groups that had previously been in conflict with each other (Kurds and nationalist Turks, religious groups and LGBT activists) had positive contact. Newly united in opposition to the common police outgroup, through their discussion

participants reclaimed as positive and empowering a term (*capulcu*, meaning 'looter') that had been used against them by the Turkish President<sup>[110]</sup>.

In an 18-month longitudinal ethnographic study, Vestergren and colleagues<sup>[111][112]</sup> examined the role of both intergroup dynamics and intra-group interaction in identity change among environmental campaigners. Participants experienced a forcible eviction by police as illegitimate and indiscriminate, and a new more inclusive common identity emerged among locals and activists, who prior this had seen each other as very different groups. This change towards a common identity was associated with psychological and behavioral changes, including greater self-confidence and new environmental consumption patterns, for some participants. Over the following months, where participants attended group activities and perceived themselves to still be part of the group of environmental protesters, their psychological and behavioral changes endured. However, for those participants who disengaged and reduced involvement with the group, the attitude and behavior changes declined. These examples suggest that new behaviors, values, and norms associated with the new social identity are more likely to be sustained if the identity is reinforced and supported in social settings where the identity is made salient<sup>[111]</sup>.

# 'Public order' policing

By specifying conditions under which conflict between crowd and police could occur, the ESIM could be used to infer the kinds of actions police should avoid if they wanted to avoid contributing to conflict: that is, avoid actions that the crowd will experience as both illegitimate and indiscriminate. However, the model said nothing about what the police should do in the place of these actions. Reicher et al. <sup>[113]</sup> therefore suggested four principles for a proactive approach to avoiding conflict at crowd events. These are education (i.e., understand your crowd's identity and norms), facilitation (support the crowd's legitimate aims), communication (talk to people in the crowd, provide information), and differentiation (distinguish between groups within the crowd). Stott's research on football crowd policing in the UK and mainland Europe showed that policing based on these principles – not 'soft' policing but policing perceived by fans as 'proportionate' – could lead to fans self-regulating each other around a non-conflictual norm (e.g., to enjoy watching the game) and (therefore) lower levels of conflict (as measured for example by the number of arrests)<sup>[114][98][115][116]</sup>.

Recent work by Stott and colleagues proposes further elements that provide a framework for police to adopt in football crowd management<sup>[<u>117</u>]</sup>. These include applying the European Convention on Human

Rights – specifically, the right to assemble – which is intended to reduce conflict between fans and police and to improve the legitimacy of police in the eyes of fans. In addition, as part of adopting the principles outlined above, police forces are encouraged to engage in a participant action research framework<sup>[116]</sup> so that officers can evaluate their own practice.

The innovations based on the ESIM have now been taken up by some police services in the UK as well as internationally in Denmark, Sweden and Ohio, USA. Some police officers and services have been critical of the new approach<sup>[116]</sup>. Amongst those being policed, it is in relation to protest, rather than football, that most criticism has been voiced. On the one hand, some critics argue that by police defining some kinds of protest as legitimate (and 'facilitating' these), the approach delegitimizes other forms of protest and therefore provides a stronger rationale for repressive policing of these<sup>[118]</sup>. Likely, the forms of protest most acceptable to the police are the least challenging to the status quo and to the police's understanding of 'public order'. On the other hand, other critics point out that the police actually use the new 'relationship building' principles of 'liaison', 'dialogue' and 'education' as further tools for traditional intelligence-gathering against protesters<sup>[119][120]</sup>.

#### Social influence and collective action events

Accounts of collective behavior in crowds include or entail models of social influence – from Le Bon's<sup>[2]</sup> contagion to Reicher's<sup>[5]</sup> inductive aspect of categorization. In recent years, there have been two significant developments in research on social influence in collective action events: work on crowd leadership and that on the spread of leaderless collective action events.

#### Crowd leadership

One view of the influence of political leaders over audiences is that it is essentially a matter of charismatic individuals, simple and repetitive rhetoric, and gullible masses (e.g., Le Bon<sup>[2]</sup>). Thus, in the case of Donald Trump, some commentators put his appeal down to public stupidity and even irrationality<sup>[121]</sup>. Complementing this, some of those apprehended after the 2021 crowd assault on the US Capitol building in support of Trump claimed to have been 'caught up' in 'mob mentality'<sup>[122]</sup>.

Recent research on leadership of crowds builds on the broader social identity model of leadership<sup>[123]</sup>. This has shown how leadership is based on the match between the leader's identity leadership strategies

(which can be seen in the content of the leader's speeches; e.g., Reicher<sup>[124]</sup>) and the audience's identity and active followership.

In addition, a crowd event can be organized to embody and reinforce a particular leader vision<sup>[124]</sup>. Reicher and Haslam<sup>[121]</sup> showed that not only the content of speeches but also the choreography of Trump's (first) election campaign rallies functioned as a dramatic enactment of the identity he and his followers wanted for America: a community threatened by various outgroups whose future could be saved (made 'great again') by Trump.

Far-right groups took encouragement both from what Trump said and from his success in the 2016 election, and this was a factor in their mass rallies in the early part of his first presidency<sup>[125]</sup>. This raises the question of how much Trump's speech influenced the crowd to attack the Capitol in the notorious event of January 6<sup>th</sup> 2021. In an analysis of both Trump's speech ahead of the attack and utterances in and reactions in the rally crowd, Haslam et al.<sup>[126]</sup> argue that what happened fits an integrated social identity model of identity leadership and engaged followership. The model suggests that leaders can exert influence by defining parameters of action in ways that leave opportunity for follower agency in how collective goals are achieved. Followers express their loyalty and support for the leader by trying to be effective in advancing these goals, in this way conferring agency to the leader. Thus although Trump exhorted his supporters to 'fight' to 'stop the steal', Haslam et al. argue that it was Trump's willing participation in the mutual process of identity enactment with his supporters, rather than any specific instructions contained in his speech, that should be the basis for assessing his influence on the assault on the Capitol. By the same token, the crowd involved in the assault were neither mindless nor entirely independent. Rather, they consciously embodied a group identity the content and goals of which Trump had helped to specify<sup>[127]</sup>.

#### Spontaneous spread of leaderless collective action events

Some of the most well-known collective action events of the past 20 years took place in waves. Examples include the Arab Spring in 2011 and the Black Lives Matter protests of 2020. Urban riots too often happen in such waves. In each case, it is the example of others on the street – not just the grievance itself – that influences some people in other locations also to come out onto the street. This diffusion phenomenon has been demonstrated statistically by  $Myers^{[128]}$  in data on the US urban 'race' riots 1961 to 1968.

In the last forty years, social psychology has succeeded in explaining spontaneous sociality *within* such crowd events<sup>[5][10]</sup>. What had received less attention is this spontaneous sociality *between* events. Simply invoking 'contagion' or even 'communication'<sup>[129]</sup> is not sufficient. Most people 'exposed' to information about the distal events do not do something similar in their own location.

A modern version of the 'communication' explanation is recent work on the role of social media in the spread of collective action events. There is now a significant body of work showing that social media engagement can influence collective action participation<sup>[130]</sup>. In studies of social movements, the argument is that social media makes coordination possible without the usual structures, formal organization, and leadership<sup>[131]</sup>. It facilitates and hence speeds up the spread of leaderless collective action events, rather than fundamentally changing what people do<sup>[132]</sup>. For example, the 2011 English urban riots were over in just five days; the 1981 wave, which relied much more on word of mouth, extended from  $3^{rd}$  to  $27^{th}$  July<sup>[133]</sup>.

How do social media posts about crowd events encourage participation in subsequent events? In their study of a much-shared YouTube video of an influential crowd event in Tunisia at the start of the Arab Spring, McGarty et al.<sup>[132]</sup> suggest that the images served to promote a sense of efficacy and empowerment among those who viewed them (since in this case the crowd was not hindered by police), as well as an inclusive national identity, making such efficacy and the norms of protest relevant to a wide audience. In a study of how social media may have facilitated the first Black Lives Matter (#BLM) wave, Reinka and Leach<sup>[134]</sup> ran an experiment exposing Black and white people to images of police racism and Black protest, some from #BLM. For Black participants, the images prompted re-appraisal, anger and empowerment – shown elsewhere to predict collective action intentions<sup>[135]</sup>. While these studies show how social media posts about crowd events can prompt cognitions and emotions which are established predictors of collective action intentions, they do not show how this translates into a local collective action event. What is still needed is a model of social influence that shows how crowd events in one location can lead to further such events in other locations.

A recent series of studies of urban and historical riots suggests that collective action events can spread via multiple psychological processes<sup>[136][137][138]</sup>. First, after the rioting elsewhere, some participants were motivated to confront the authorities in their own location through a sense of common identity with rioters in the distal location – for retaliation or to hinder the authorities – a 'cognitive' process of influence. Second, other participants became empowered when a common outgroup – the police – was

seen to be weakened by the previous rioting elsewhere, and took advantage of this in their own location – a 'strategic' influence process. In these cases and others, a common mechanism appeared to be local social influence, partly driven by meta-perceptions. The occurrence of the distal rioting set off inferences, communications in local networks, and expectations about the intentions of self-relevant others locally. This was the proximal cause of people coming onto the streets. Thus the influence of the rioting in one location on other locations was largely indirect, rather than direct.

What is the basis or origin of participants' beliefs and meta-perceptions that others locally intended to gather following the riots elsewhere? On the one hand, participants drew upon long standing beliefs about their community: knowing that our local network is resentful to police, what would we infer about their feelings and intentions when we hear that anti-police rioting is taking place in a nearby location? On the other hand, of course, people don't infer alone, but discuss and hear rumours with friends, family, and networks, over their phones or in person<sup>[139]</sup>.

Together, these processes are crucial in helping us explain why some people and places join in with a wave of collective action events and others don't (something contagion/communication alone can't explain). The greater the shared identity (for example around hostility to police) within the local community, the more that meta-perceptions (of anger, solidarity, empowerment, or simply intentions) are influential in encouraging people to come onto the streets.

Finally, meta-perceptions can be intergroup as well as intragroup, and this can have significant consequences when one of the groups is the police. In one of the case studies from 2011, police beliefs (based on local historical hostility) that local people would be susceptible to influence from the growing wave of riots led police to mobilize into a community in a way that drew a crowd<sup>[137]</sup>. The police's intervention against this large crowd initiated a dynamic that could be explained by the ESIM, with the result being widespread collective violence.

While this model of spread with meta-perceptions at its heart has been applied to riots, aspects of it can in principle be applied to other forms of spontaneous leaderless collective action spread. An example would be the spread of Palestine solidarity student encampments across university campuses in Spring 2024 – hearing of the growing wave would likely increase expectations that fellow students would do something similar at other campuses, thereby increasing intentions among those who wanted to express solidarity.

# **Future Directions**

There are a number of areas where crowd behavior research and theory has the potential for exciting future directions. Here I consider three.

#### Research on crowd psychology can enhance safety and experience at live music events.

The recent findings on shared social identity space, mass gatherings health, and behavior in mass emergencies are directly relevant for those involved in planning crowd safety at live music events, and can be integrated into both the training and the guidance used in this industry. Moreover, since similar social identity processes underlie both safety-related behavior and positive emotions (i.e., shared social identity, expected support), event organizers can use the findings to enhance the positive experience that comes from enjoying music with others. Specifically, event organizers and crowd safety professionals can facilitate shared identity in the crowd, and build shared identity between the audience and staff, through forms of language and communication. In addition to these practical applications of existing research, the live events industry is a domain with multiple needs for which one can easily imagine social psychology research being applied to identity novel solutions – including for show-pauses, the overuse of mobile phones in audiences, and disruptive behavior.

# Integration of collective action research and crowd theory

Collective action events are often crowd events – including marches, rallies, occupations, riots. Collective action research has grown rapidly in the last 15 years<sup>[140]</sup>. Perhaps surprisingly, much of this growth has not connected with the developments in crowd psychology theory, despite the common origins in the social identity approach. There has been more concern with the (cognitive) predictors of collective action than behavior in collective action events. One development in terms of 'what people do' in protests has been work using the distinction between 'normative' and 'non-normative' collective action<sup>[141]</sup>, but here again most of this work focuses on the predictors of each (or consequences for support from non-participants)<sup>[142]</sup>.

I would argue that collective action research can better understand processes and develop theory by looking closely at what people actually do in those collective actions that take the form of crowd events. The reason is that crowd events involve different groups where (unexpected) change is possible, in perceptions/ beliefs, meta-perceptions, group boundaries, motivations, and subjective power. Examples of such theory development include, in the past, the ESIM, and more recently some of the work cited in this review on identity change and social influence.

Taking this argument seriously has methodological implications, and would mean greater use of interviews, ethnography, archive analysis, video analysis, and observations, to complement the use of questionnaires, experiments, and sophisticated statistical techniques that collective action researchers have become so proficient at.

## The role of meta-perceptions in subjective crowd unanimity

In 1957, Turner & Killian<sup>[4]</sup> referred to the 'illusion of unanimity': looking closely at a crowd that seems to be acting as one, one can detect multiple motives and intentions. Ongoing work on the role of metaperceptions in people's experiences in crowds helps explain how this can occur within a coordinating crowd. Vestergren et al.<sup>[143]</sup> observed and interviewed participants in the huge queue for Queen Elizabeth's lying-in-state in 2022. Participants attended the collective mourning events for diverse reasons, including to be part of history, experience the unique event, to honour family members, and to express grief. However, participants also perceived a common motive across the crowd of expressing respect to the monarch and a shared notion that 'we' are all the same (i.e., loyal, British) and that therefore everyone was therefore doing the same thing. This perception of commonality was used by the media to project a homogeneous British identity, unified in grief and respect, creating an illusion of hegemony, with implications for the legitimacy of the succession<sup>[144]</sup>. This kind of analysis therefore also takes us beyond the crowd to what the meaning of the event can achieve for the wider society (for both good and ill).

# Conclusions

It is perhaps understandable that research on the psychology of crowd behavior has grown rapidly in the last 20 years. Crowds are often at the centre of our lives; from national and international events to major incidents as well as mundane or routine occasions, crowds constitute both the context and the focus of so much of our lives. More than this, the value of the recent research and theorizing goes beyond the topic of crowd behavior itself. As crowd psychologists have argued, crowds are a privileged arena in which to study social psychological processes<sup>[145]</sup>. The recent research has addressed, and it helps us to think about, important concepts and phenomena across social psychology, including the very nature of the self and social identity, identity enactment, shared emotion, wellbeing, social support and cooperation, group

norms, empowerment, leadership, and social influence. Crowd behavior research has been shaped by, but has also has re-shaped in turn, the social identity approach, the dominant approach to understanding group processes and intergroup relations in social psychology. In addition, the increased number of practical applications demonstrates that the social identity research on the psychology of crowd behavior has value beyond academia.

# Footnotes

<sup>[1]</sup> The term used here is based on that used by Tilly (e.g., behavior that involves 'demands, attacks, petitions, supplications, affirmations of support or opposition'<sup>[146]</sup>).

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