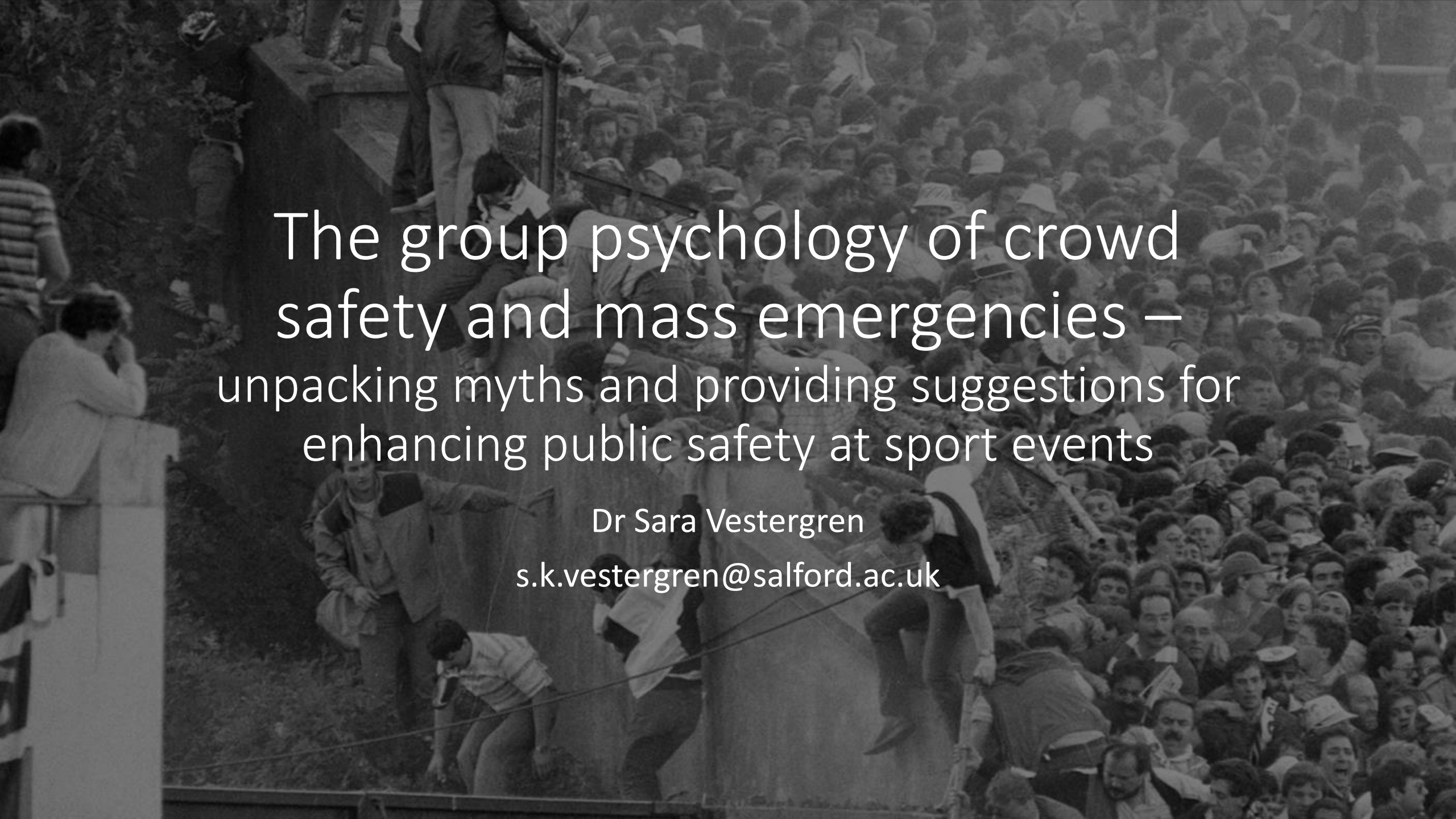




The group psychology of crowd safety and mass emergencies – unpacking myths and providing suggestions for enhancing public safety at sport events

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February 2015 – Air Defence Stadium outside of Cairo



The context

- **Police/government:** Protesters forcing their way into the stadium (subsequently died of asphyxiation). Prevention from damaging property
- **Fans:** Thousands of people forced by police to go through metal cage-like corridor – numbers increased – crushing against metal bars
 - People were suffocating
 - People were trying to get out
 - Military trampling people
 - Military shot tear gas and tanks blocked the exits



Aerial view of Air Defense Stadium, showing the field, seating, and surrounding area. A red dot marks the location of a stampede by fans near the top right seating bowl.

Air Defense
Stadium

Stampede by fans

...crowd management principles

Knowledge

Become informed about the culture of the identities, sensitivities and norms.

Facilitate

Orient the policing toward facilitating the legitimate intentions of those identities.

Communicate

Be sure to communicate with participants throughout

Differentiate

If intervention is necessary be sure that it is correctly targeted



Overview

1. How people behave in emergencies
2. How to use group psychology to enhance safety

1. How people behave in emergencies





How do people behave
in emergencies?

They attempt to flee

- Individually?
- **In group**

How people behave in emergencies

They delay their evacuation

1. Not taking the emergency seriously



Why the delay in our response to danger?

- Denial ('bias')
- Freezing
- **misrecognition** (9-11)?
 - Are they reasonable or unreasonable? (How likely is a fire? How likely is a plane crashing into your building?)
- **If you're alone in your office and the alarm bell sounds, what do you do?**





How people behave in
emergencies

They delay their evacuation

1. Not taking the emergency seriously
2. **To deal with the emergency**



How people behave in
emergencies

They delay their evacuation

1. Not taking the emergency seriously
2. To deal with the emergency
3. **To be with & help each other**



How people behave in
emergencies

Cooperation is common



What is the
basis of
support and
coordination
in crowds in
emergencies?

1. Existing groups:

- Friends and family relationships
- ‘Social capital’

1. But there are also *emergent* groups



How to study behaviour in emergencies

What people **did**
(observations/video, reports)

- Tells us about common patterns, prevalence

The **reasons** for behaviour (same behaviour could have different motives)

- Tells us about mechanism/process

Our methods:

- Interviews, surveys of survivors
- Archive materials (mass media, official reports/inquests)
- Experiments

7th July 2005 London bombings

- 4 bombs (three trains, one bus)
- Rush hour
- 56 people died
- 700+ injuries

Emergency services
didn't reach all
the survivors
immediately – the crowd
left in the dark for
20 minutes or more



‘Helping’ (versus personal ‘selfishness’)

- (Helping = giving reassurance, sharing water, pulling people from the wreckage, supporting people as they evacuated, tying tourniquets)

**Contemporaneous
newspaper
accounts**

**Archive
personal
accounts**

**Primary data:
Interviews and
e-mails**

‘I helped’	57	42	13
‘I was helped’	17	29	10
‘I saw help’	140	50	17+
‘Selfish’ behaviours	3	11	4





Why did people help each other?

	Archive personal accounts	Interviews and e-mails
Possibility of death	68	12
Not going to die	2	1
With affiliates	8	2
With strangers	57	15

Before the bombing:

Int: “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”

(LB 1)



‘Me’ in relation to other individuals

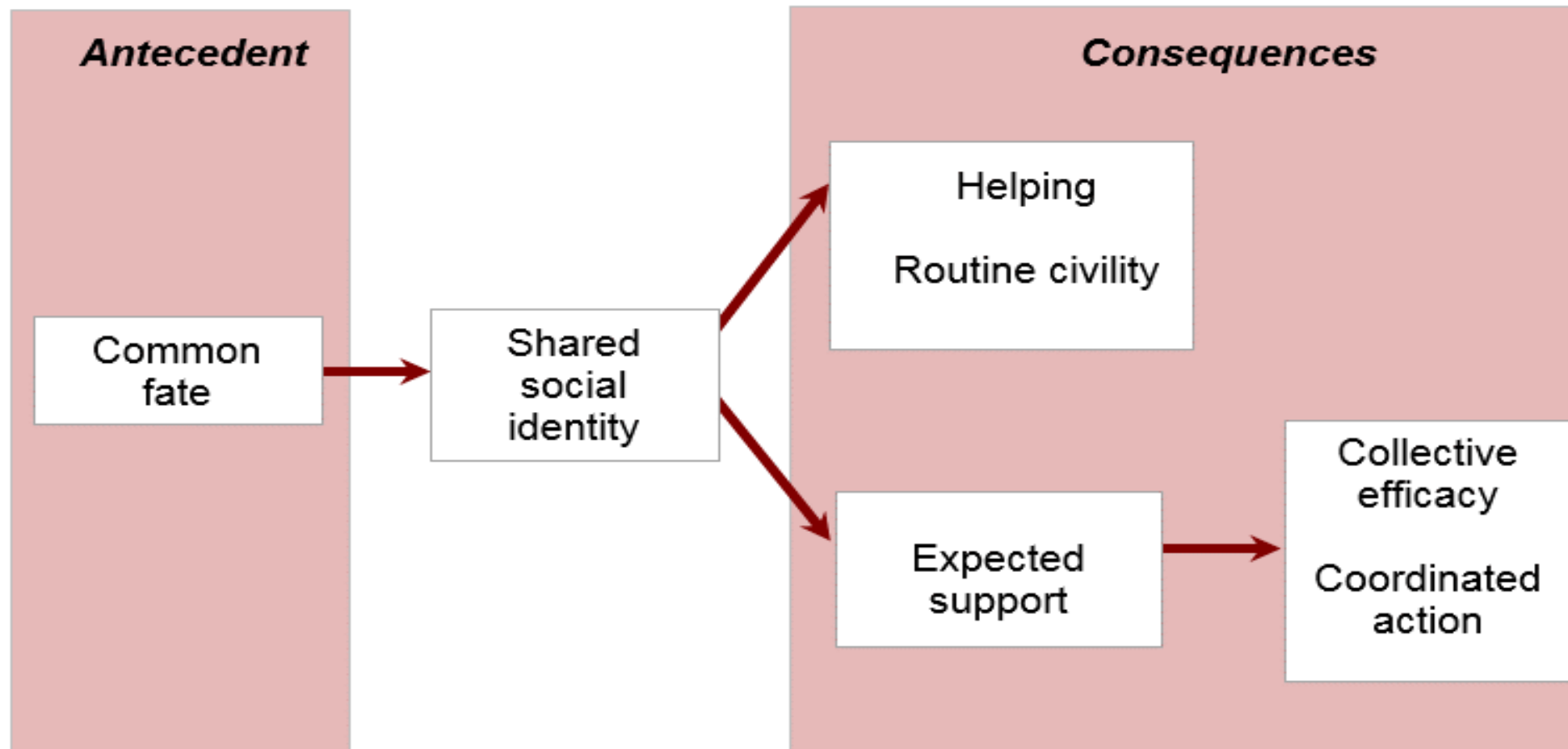
After the bombing...

Interviewees' references to 'we-ness':

- 'unity', 'together', 'similarity', 'affinity', 'part of a group'
- 'everybody, didn't matter what colour or nationality'
- 'you thought these people knew each other'



'Us' in relation to the bomb blast



'Mass panic'?

Panic on US plane as flight attendant warns aircraft may crash

Amateur video taken by a passenger captures the sounds of a struggle on board a US



19 killed in mass panic at Germany's Love Parade

Up to 342 injured after stampede breaks out during techno music festival

A photograph of a crowd of people in a state of panic. In the foreground, a man in a purple jacket and green shirt is screaming with his mouth wide open. Behind him, other people are visible, some looking distressed. The background is slightly blurred, showing more people and what appears to be an indoor setting with some structural elements.

Research suggests panic is rare:

Atomic bombing of Japan
during World War II

Kings Cross Underground
fire of 1987 - 31
died

9/11 World Trade
Center disaster - >2000
died



What about disorderly
evacuations (*pushing*,
competition)?

When does this
occur?

When there is:

1. A narrow exit
2. An unfamiliar exit

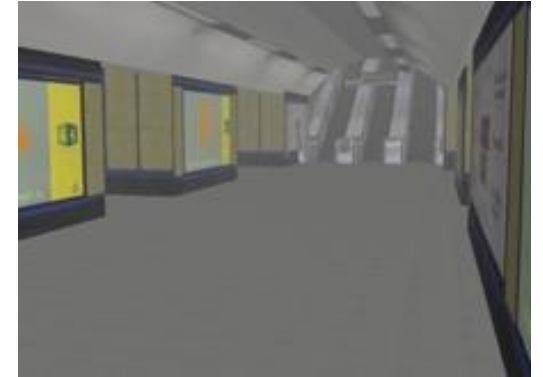
...and (3 & 4)



3. When people in the crowd *don't* develop *shared identity* with each other

Emergency evacuation from underground railway station (virtual reality)

- Two conditions
- **High identification with crowd:**
You are part of a crowd of football fans of the same team
- **Low identification with crowd :**
You are amongst a crowd of shoppers from the sales.



Results

- More **help** offered in **high-**identification (football) condition
- Greater **pushing** in **low-**identification (shopping) condition





What about disorderly
evacuations (pushing,
competition)?

When does this
occur?

4. In the initial phase
- when there has been
a recent history of
terrorist attacks



2. How to use group psychology to enhance public safety at events and in emergencies



Public behaviours WE
WANT for a safe event *and*
emergency evacuation

1. Coordinate with each other in an orderly manner: **cooperate**
2. Listen to, trust and accept information: **comply**
3. Act with urgency, not excessive **anxiety**

- All these 3 public behaviours are **more likely if the public are in *the same group as each other and you (the authorities/responders)***.
- Therefore, how do you get the public *to share identity with you* for safe events?



10 actionable recommendations



Preparedness phase

1. Know the theory

- *panic* (over-reaction) is rare in crowds in emergencies
- *social support* among survivors is common in emergencies
- much of this social support is due to *shared social identity*
- crowd behaviour is a function of the perceived legitimacy of other groups' behaviour. Therefore, responders should understand that *the way in which they manage an incident will impact on public behaviour*



Preparedness phase

2. Work With, Not Against, Group Norms in Emergencies

- be aware of and *recognize group norms* as a source of possible distress, and design the procedure so that responders are seen to do as much as possible to respect privacy
- Cultural competence



Preparedness phase

3. Communication!!!

Everyone agrees...

Develop Evidence-Based, Pre-tested Communication Strategies

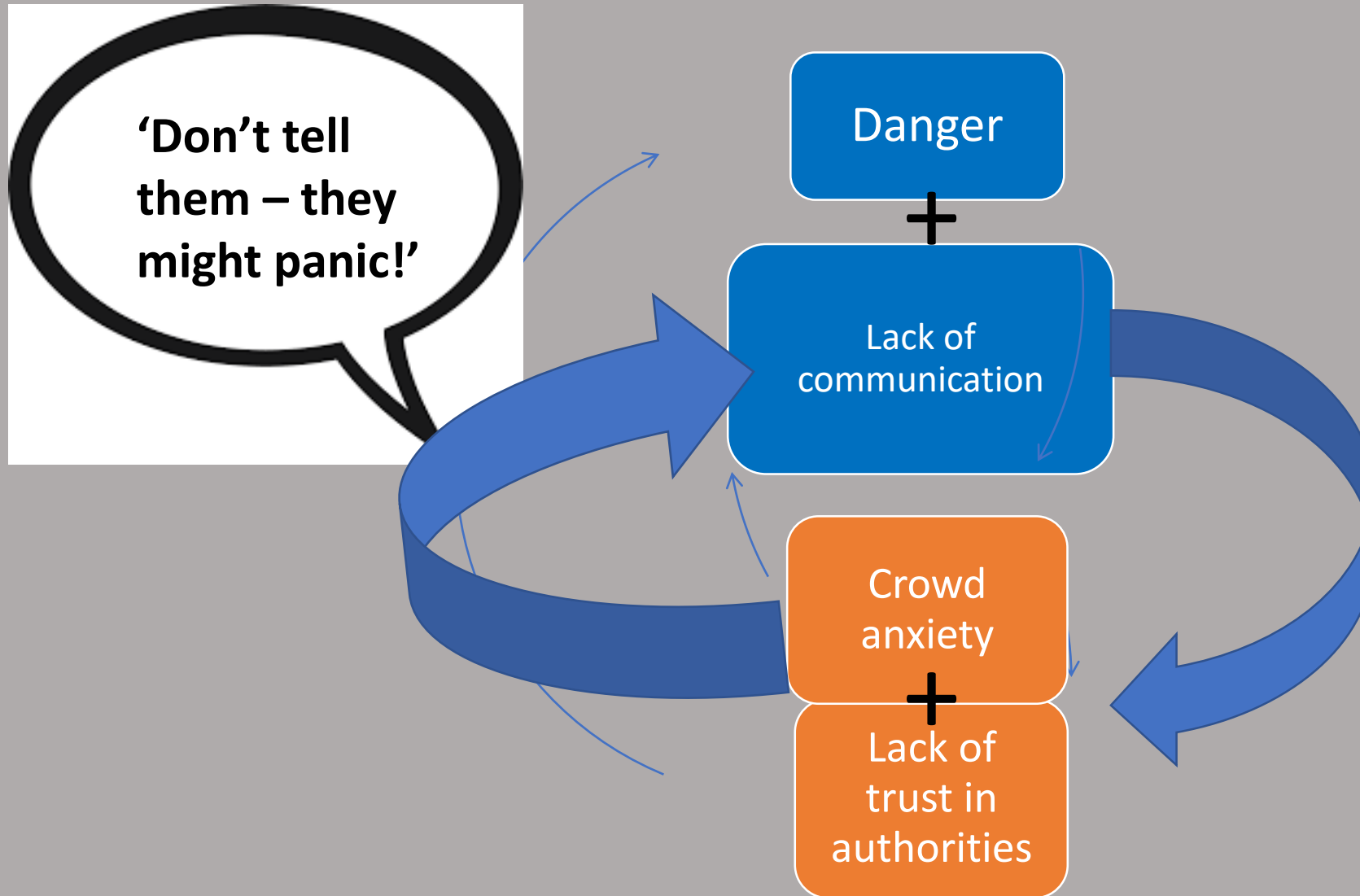
Provide Pre-incident Information
and Identify Trusted Messengers
Listen to and Learn From at-Risk
Communities

Build relationships during
emergency planning: build shared
social identity between
communities and responder

Use communication (language, words, symbols) to build shared identity



A vicious circle of believing in 'crowd panic'





Response phase

4. Prioritize Informative and Actionable Risk and Crisis Communication

- Build Shared Identity Between the Public and Responders Through Providing Information
- Use Human Voices Rather Than Bells and Sirens to Communicate
- Communicate What You Know (and What You Don't Know)

Information works!

Experiment on Newcastle Metro

(Proulx & Sime, 1991)

Condition 1: simple alarm

Condition 2: P.A. (announcement) system
order to evacuate

Condition 3: P.A. system announced location
and nature of threat (fire), and order to
evacuate

Which condition led to the fastest (i.e. most
effective) evacuation?





Response phase

5. Do Not Undermine Shared Identity During the Response

- *Professional groups'* actions might (inadvertently) inhibit the emergence of a shared identity process
- Talk to them *as a group* rather than separate individuals
- Use '*we*' and '*us*' to create a shared identity between crowd members and the professionals

Build shared
identity
through the
way you
provide
information



Novichok poisonings

Damien Gayle and agencies

🐦 @damiengayle

Thu 14 Feb 2019 18.58 GMT



58

Salisbury poisoning: website says it has identified third GRU suspect

Denis Sergeyev named as involved in suspected poisoning in Bulgaria in 2015 by website Bellingcat



▲ Police officers in biohazard suits at the site of the Salisbury poisoning in March 2018. Photograph: Ben Stansall/AFP/Getty Images

A third suspect linked to the poisoning of the former Russian double-agent



CBRN

(Chemical, Biological, Radiological, Nuclear)

Procedure:

(a) quarantine (not dispersal) for

(b) decontamination

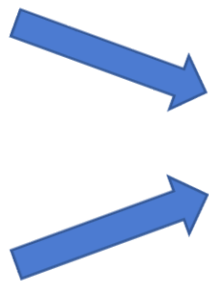
- Quarantine and decontamination:
A stressful emergency response procedure
- Significance: *lack of compliance = risk!*





Communication

Respect for
Privacy
Concerns



- **Legitimacy**
- **Shared identity**
- **Trust**



Compliance





Response phase

6. Accommodate the Public Urge to Help

- Involvement builds unity and trust; and it can makes people feel better.
- Often necessary for the public to respond, given the inability of sufficient responders to reach survivors in time



Response phase

7. Recognize and Work With “Group Prototypes” for Influence During an Incident

- For example, a ‘hooligan’ leader, a DJ, a sports ‘star’





The **identity** of the person or group providing the information matters!

When people are in the same group...
...they are more likely to:

- **trust** each other
- **influence** each other



Recovery phase

8. Maintain Active Communication With Recovering Communities
 - Keep Survivors and Families of Victims Informed
 - Keep Listening to Recovering Communities, and Act on This Information
9. Keep the Disaster Community Alive
10. Mobilize Wider Solidarity

Summary of recommendations

- Know group psychology
- Listen and learn - Get to know the crowd's identities
 - 'recognize' their values, needs, priorities, **norms**
- Build shared identity to communicate effectively – use words, symbols
- Provide information and respect to create shared identity
- Find more details on these recommendations and more at:
<https://www.frontiersin.org/articles/10.3389/fpubh.2019.00141/full>

Crowds & Identities



University of
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MANCHESTER

Thank you for listening!

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