

Group processes and interoperability: A longitudinal case study analysis of the UK's civil contingency response to Covid-19

Abstract

Our case study explored a Local Resilience Forum's (LRF) civil contingency response to COVID-19 in the UK. We undertook 19 semi-structured ethnographic longitudinal interviews, between 25th March 2020 and 17th February 2021, with a Director of a Civil Contingencies Unit and a Chief Fire Officer who both played key roles within their LRF. Within these interviews, we focused on their strategic level decision-making and how their relationship with national government impacted on local processes and outcomes. Using a form of grounded theory, our data describes the chronological evolution of an increasingly effective localised approach toward outbreak control and a growing resilience in dealing with concurrent emergency incidents. However, we also highlight how national government organisations imposed central control on aspects of the response in ways that undermined or misaligned with local preparedness. Thus, during emergencies central governments can undermine the principle of subsidiarity and damage the ways in which LRFs can help scaffold local resilience. Our work contributes to the theoretical understanding of the social psychological factors that can shape the behaviour of responder agencies during a prolonged crisis. In particular, the implications of our analysis for advancing our conceptual understanding of strategic decision-making during emergencies are discussed.

Keywords: Interoperability, group processes, strategic decision-making, emergency management, COVID-19, intergroup relations, civil contingency response, social identity

Introduction

The UK's civil contingency response to Covid-19 has involved a vast network of national and local response agencies. Therefore, a central issue has been interoperability: the extent to which Category 1 (e.g., the emergency services and local authorities) and Category 2 (e.g., public utility companies) organisations can work together effectively in evolving and complex circumstances¹. To explore this key issue, we first outline the multi-agency structures that are central to an understanding of the UK's response to major incidents, before then turning to the literature on interoperability and decision-making during emergencies. We argue that an empirically driven theoretical model of intergroup relations is needed and therefore advance the utility of the Social Identity Approach, before presenting an analysis of the group-level factors that may have (re)shaped the relationships between local responder agencies and the government during the first year of the pandemic.

The UK's multi-agency response to major incidents.

The Civil Contingencies Act (herein 'CCA', 2004) is the major legislative framework underpinning the UK's national response to major incidents². The CCA places statutory duties on Category 1 and Category 2 responders to make sure that partner agencies work collaboratively and collectively to respond effectively to emergency situations through their involvement in Local Resilience Forums (LRFs). LRFs are defined by police boundary areas throughout England and Wales, and they are mandated by the CCA to be the "...*principal mechanism for multi-agency co-operation*" in emergency situations (Cabinet Office, 2003, p. 11). Correspondingly, there is a requirement that LRFs meet at least once every six months so that the forums can act as the vehicle through which a range of CCA mandated duties can be fulfilled. According to the Cabinet Office (2003), these duties relate to a) assessing the risk of an emergency occurring and planning and preparing accordingly (through the development and maintenance of a Community Risk Register), b) maintaining and updating emergency and business continuity planning arrangements, c)

¹ See: <https://www.ukfrs.com/sites/default/files/2017-09/JESIP%20Joint%20Doctrine%20-%20The%20Interoperability%20Framework.pdf>

² A major incident is defined in the UK by the Joint Emergency Services Interoperability Programme (2016) as "An event or situation with a range of serious consequences which requires special arrangements to be implemented by one or more emergency responder agency" (p. 8).

communicating with the public, d) promoting business continuity, e) sharing information and f) multi-agency cooperation.

In response to a major incident, an LRF stands up a Strategic Coordinating Group (or 'Gold Command Group'). The SCG membership is determined by the Chair of the LRF and the SCG depending on the type and location of an incident. However, it usually comprises representation from the same Category 1 and 2 organisations as the LRF, as well as other invited senior officers who hold specialist expertise that will contribute to the response. The purpose of the SCG is to provide the overall strategic vision and leadership throughout the duration of the emergency. As such, membership is usually restricted to those who hold the most senior positions within a given organisation (e.g., the Chief Constable or Deputy Chief Constable usually represents the police on the SCG).

In addition to SCGs it is normative to have a separate Tactical Coordinating Group (TCG) or ('Silver Command Group'). TCGs are "*...tasked with interpreting strategic direction, developing tactical plans, and coordinating actions and resources*" (Waring et al., 2020, p. 633). Furthermore, there are several Operational thematically organised sub-groups that are mobilised to deliver the strategic objectives identified at SCG level (e.g., communications). Thus, a key distinction between the LRF as opposed to the SCG/TCG is that LRFs are engaged in resilience planning and therefore draw on emergency preparedness guidance. Whereas SCGs/TCGs are established to deal with the response to an emergency/incident and are consequently steered by the Cabinet Office's 'Emergency Response and Recovery' non-statutory guidance that sits alongside the CCA³.

Additionally, some localities in the UK have chosen to make strategic multi-agency investments in a Civil Contingencies Unit. These comprise teams of specialist planners who support the LRF in preparing for local and/or national emergency

³ See:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/253488/Emergency_Response_and_Recovery_5th_edition_October_2013.pdf

incidents. CCUs work to support all responder agencies to meet their statutory duties defined by the CCA, to develop and maintain multi-agency plans for Category 1 responders, to provide multi-agency training for the LRF, to provide 24-hour call out capacity should an emergency event occur and to deliver underlying administrative support to the LRF⁴. Thus, there is a complex myriad multi-agency groups involved in a response to an emergency incident and it is this framework through which local authorities across the UK responded to Covid-19. Accordingly, interoperability is a key concept to which we now turn.

Interoperability and decision-making during emergencies.

Power (2018) describes that researchers' who are focused on inter-agency collaboration during emergencies draw on a body of psychological research that explores teams and groups in other contexts, most notably work organisations (e.g., Salas et al., 2005, 2008, 2018). This body of work carries important assumptions about the psychological formation of social groups and intergroup cooperation that can be defined as the interdependence perspective (see Turner, 1985). As Salas et al. (2005) outlines, there are two important aspects to this theoretical outlook: 1) that shared cognition or situational awareness is fundamental to effective interoperability but that 2) this shared cognition is defined as an aggregate of individual knowledge (Cooke et al., 2000). Consequently, as Turner (1985, p. 246) argues, from this interdependence perspective, "*a 'group' is merely the product of interpersonal relations and processes...*". Thus, whilst there is a recognition that 'team' or group-level processes and relations are crucial to an understanding of interoperability during emergencies (Power, 2018), existing research tends to focus on *individual* cognition and in particular 'biases' such as 'decision-inertia' (e.g., Alison et al., 2015; Power, 2015; Shortland et al., 2018) and the impact that these cognitive 'defects' have on intergroup cooperation, coordination, and communication.

For example, Power & Alison (2017) interviewed 31 senior commanders (from the ambulance, fire and rescue and police services) in the UK to explore the decision-making challenges that they have faced in the context of managing emergency

⁴ E.g., <https://www.dorsetprepared.org.uk/about-the-lrf/the-dorset-civil-contingencies-unit/>

situations. Their analysis depicted two forms of cognitive ‘uncertainty’: endogenous factors which related to uncontrollable characteristics of the situation such as time pressure and emotional demands, including fear. They also identified a series of exogenous uncertainties which related to the commanders’ perceptions of their team(s) capacity to respond effectively including levels of communication, trust and inter-agency competition and conflict. Power and Alison (2017) go on to argue that these challenges can create a form of cognitive dissonance whereby commanders ‘redundantly’ oscillate between the negative consequences that might arise from both acting (to potentially save lives) or not acting (to prevent further harm).

From this interdependence perspective, a key cognitive ‘bias’ inhibiting effective judgements is what Alison et al. (2011) term ‘accountogenic decisions’. Correspondingly, accountability is defined as “...*the process of having performance assessed by an audience or audiences with the power to reward or punish based on their appraisals*” (CREST, 2020, p. 4). Thus, the positive function of accountability is that it will encourage decision-makers to make improved judgements and outcomes. However, the negative consequences of accountability on decision-making arise from people trying to consider too much information in such high-risk circumstances as emergency situations (CREST, 2020). Due to limited cognitive capacity and load this leads to a failure to discriminate between relevant and irrelevant information (Waring et al., 2013). Additionally, accountability can motivate decision-makers to protect themselves, with limited cognitive resources being “...*directed away from focusing on the incident to focusing on how other people might view actions in the future and how related punishment can be avoided*” (CREST, 2020, p. 4).

Van Den Heuvel, Alison and Crego (2012) argue that these cognitive biases can lead to a form of implementation avoidance where actions are not taken due to responders being stuck in the information gathering and planning phase. Accordingly, the potential impact can be mitigated if decision-makers effectively implement the stages outlined in the iterative SAFE-T model of emergency decision making (i.e., Situation Assessment, Plan Formulation, Plan Execution and Team Learning). Strategies to facilitate this are outlined by CREST (2020), that include: a) the importance of training to build up decision-maker experience in maximising limited cognitive resources, b) ‘awareness raising’ of the problems of decision inertia and the corresponding need for

decision-makers to “...*accept the concept of non-optimality*” (p. 5), c) to encourage goal-focused thinking, and d) frequent practise and feedback to encourage efficiency and creative decision-making.

Thus, in summary, existing research on interoperability and decision-making in emergency situations emphasise the importance of ‘team processes’ and accountability dynamics, yet this work often focuses on individual-level cognitive processes and solutions. To explore the complex intra and intergroup relations involved in a multi-agency emergency response there is a need for a theoretical model that recognises the reality of groups as an analytical unit, to explore the group-level processes and accountability dynamics that impact on strategic decision-making during emergencies.

The importance of (inter)group processes and relations.

Davidson et al. (2020a, 2020b, 2020c) have recently argued that the Social Identity Approach (SIA) is an important theoretical framework for understanding the relations between responder agencies and government during the Covid crisis. The SIA jointly comprises Social Identity Theory (Tajfel and Turner, 1979) and Self-Categorisation Theory (Turner et al., 1987). Central to the SIA, is the idea that the self-concept is hierarchical, comparative and context specific. Accordingly, you can define yourself in each context in terms of your personal identity (as “I”) or at a more inclusive level in terms of a social identity (based on your psychological group memberships, “we”). From this perspective, social identity is “...*a model of one’s position within a set of social relations along with the actions that are possible and desirable given that position*” (Neville & Reicher, 2018, p. 12).

Therefore, in contradistinction to the interdependence perspective, the SIA recognises the psychological reality of the group (Turner, 1985), with group behaviour being qualitatively different from the mere aggregate of interpersonal relations and instead the outcome of a psychological shift from personal to social identity (Turner, 1982). Furthermore, it is acknowledged that groups do not operate in a social vacuum, in isolation from other groups (Tajfel and Turner, 1979). Rather, society comprises myriad social groups that “...*stand in power and status relations to one another*” (Hogg and Abrams 1988, p. 14). This has important implications for an understanding of how

multi-agency groups such as LRFs function, since the analytical focus is on the complex and changing array of intergroup relationships of those involved in an emergency response (e.g., local stakeholders, national response agencies and government), all of whom differ in terms of status and power (Davidson et al., 2020a, 2020b, 2020c).

For example, from a SIA perspective, Davidson et al. (2021) argue that for LRF interoperability to be effective, the multiple partners must build a shared sense of identity (a sense of 'we-ness') at the superordinate level (i.e., inclusive of all people involved across organisational boundaries). In so doing, this facilitates the emergence of a new identity with shared norms, values and goals and enhances the partners' ability to work together to overcome challenges. Based on an analysis of interviews with UK Bluelight service personnel during the first wave of Covid-19, they demonstrate that 'vertical' intergroup relations (i.e., those between LRFs and government agencies) served to undermine the effectiveness of horizontal intergroup relations (i.e., between partners within the LRF). Local responders sought to mitigate this by 'widening' horizontal relationships by developing a network of regional connections to neighbouring LRFs.

These findings accord with those of the UK's Covid-19 National Foresight Group who conducted three Interim Operational Reviews between April and October 2020 (Hill et al., 2020a, 2020b, 2020c) and a subsequent integrated report (Hill et al., 2021), all of which focused on exploring the experiences of the pandemic response from key stakeholders including members of LRFs, SCGs and government officials. They reported that national government organisations often imposed central control on aspects of the response in ways that often disrupted or challenge the preparedness undertaken locally (Hill et al., 2021).

The present study.

As the above discussion demonstrates, the UK's response to Covid-19 involves a complex multi-agency response at both the local and national level. Yet extant research and theory into interoperability during emergency situations is often focused on individual-level decision-making biases and seeking solutions to ameliorate these cognitive limitations. Accordingly, what this body of research does not tend to explore

is the complex group-level factors that (re)shape the relationships between different responder agencies and the government, especially during a prolonged pandemic. More broadly, a key limitation of emergency teamwork research is the lacuna between research and practice (Power, 2018; Wilkinson et al., 2019). Indeed, Power (2018, p. 28) concludes that to bridge this gap researchers “...*must have buy-in from practitioners operating in the real-world who can implement findings, and commitment from researchers that their research findings have contextualized and relevant application to support practice*”.

Thus, to address these limitations, we undertook a case study approach with our focus on the experience of the first year of the pandemic from the perspective of two senior responders both of whom played key roles within their Local Resilience Forum (LRF) and Strategic Coordination Groups (SCG). In so doing, we sought to advance the literature in several important ways. First, previous research (e.g., Wilkinson et al., 2019) has often utilised training scenarios to explore SCG decision-making. Whilst there is the capacity to create compelling and realistic incidents these are usually relatively small-scale and cannot compare to ‘real-life’ emergency management (Power, 2018). Thus, our study focuses in on the strategic decision-making of responders longitudinally and during a prolonged crisis with an evolving and dynamic political and societal context.

Second, we sought to address the gap between research and practice. Therefore, our approach was one of co-production from the outset with our interviewees not only being co-authors of this work but also informing the analysis and providing ongoing assistance with the policy impact and dissemination of this research.

Third, theoretically, we sought to move beyond individualist explanations for strategic decision-making during emergencies which focusses on cognitive biases and instead we aim to contribute to the understanding of the social psychological factors that can shape the behaviour of responder agencies during a pandemic (Davidson et al., 2021; Radburn et al., 2021; Stott et al., 2021). Specifically, the following analysis explores the complex set of vertical (e.g., between LRFs and government agencies) and horizontal intergroup relationships (between partners within the LRF) and how these group-level dynamics changed and shaped the nature of the civil contingency response that an LRF was able to deliver during the first year of the pandemic. In so

doing, there is a particular emphasis on strategic level decision-making at the local level and how the relationship with national government impacted on local processes and outcomes.

Method

Data collection.

The first, second and fifth author undertook 19 interviews, between 25th March 2020 and 17th February 2021, with a Director of a Civil Contingencies Unit (fourth author) and a Chief Fire Officer (third author), who both played key roles within their Local Resilience Forum (LRF) and Strategic Coordination Groups (SCG). Additionally, 3 interviews were undertaken with other Chief Fire Officers across this period, all of whom played senior roles in their respective LRF/SCG. This material informed the analysis and equated to 20 hours, 28 minutes and 49 seconds of audio which were subsequently transcribed. In practice, the interviews usually ranged between 30 minutes to an hour and took place every two-to-three weeks using the online platforms Zoom or Microsoft Teams. The interviews took the form of a debriefing session where we explored the interviewee's current challenges and decision-making, what issues they anticipated they may encounter in the future, as well as following up on any of the issues raised in the previous interview. Additionally, we collected a range of secondary data sources including newspaper articles, research reports, transcripts of government announcements and media press conferences.

Analytic strategy and presentation of data.

The first and second authors undertook a form of grounded theory (Charmaz, 2014) to arrange the data both chronologically and thematically. Thus, secondary data sources were used to produce detailed timelines of key national events and issues (e.g., government announcements) and through this process we developed and grouped the interviews into three broad chronological phases or stages. Whilst there is a degree of overlap, the first phase includes the period from the advent of national lockdown in England on the 23rd of March 2020 through to the Prime Minister's announcement indicating that restrictions would be gradually eased on 10th May. The second phase then covers the period from May 2020 to the first imposition of 'tiered' localised restrictions at the beginning of October. The third phase explores the period

from October through to when England went into a further national lockdown in December 2020. Having grouped the transcripts chronologically, they were then (re)read and semantically coded to draw out key episodes as exemplars of theoretical relevance. Accordingly, there was a particular emphasis on the horizontal (inter)group relationships within the LRF/SCG and vertical (inter)group relationships between the LRF/SCG and central government agencies.

Through this process, the first and second author developed a form of 'composite narrative' (Willis, 2018) where the perspective of both interviewees (the third and fourth authors) were incorporated to produce a combined account of events. The analysis was then 'sense checked' by all authors, two of whom (the third and fourth authors) were able to draw on their considerable and ongoing personal and professional experience to interrogate and refine the content. As Willis (2019) outlines, a 'composite narrative' approach has two clear advantages: 1) it facilitates an emphasis on preserving the complicated and contextual accounts of our interviewees and 2) the narrative form "... can help to build understanding of particular people and groups, in ways that are accessible to non-academic audiences" (p. 477). Once an initial analytical structure was created, we met as a research team several times to discuss, refine, and adapt the analysis so that we achieved the best 'fit' with the dataset. Quotations presented within the following analysis were all taken directly from the interview transcripts and were judged to be the best exemplars of the themes generated.

Analysis

Phase 1: 23rd March to 10th May 2020

SCG leadership.

By the time of the first interview on 25th March, a Director of Public Health (DPH) had been appointed as the Chair of the SCG⁵. However, at that time one of the primary decisions involved declaring a major incident. This triggered discussions as to whether

⁵ The decision to appoint a DPH Chair was in line with the pre-planned national response to a flu pandemic. Local responders were told by government to use this guidance as the basis of their response to COVID-19.

the Chair should shift to the police⁶. There was some resistance to this idea among several of the stakeholders who wanted to declare a major incident but maintain a health led approach. This was primarily because they judged a police force led approach would be more 'command and control' oriented and therefore undermine the more collaborative multiagency approach that was already in place. To resolve the contention, the SCG compromised by developing 'trigger' plans for changing the chair depending on the emerging and evolving context (e.g., the relative salience of the maintenance of public order) and a mechanism whereby partners endorsed the chair at the start of each meeting. This was then adapted to be a decision taken at the end of the meeting to reflect the pace of the response and, if change were to occur, to provide an opportunity to brief the new postholder.

Centralised versus localised response.

A salient national issue from the announcement of a national lockdown on 23rd March was the need to identify and support vulnerable people. This immediately introduced a logistical problem for the SCG and LRF in identifying who these individuals and households were. This was initially defined via the NHS database of clinically extremely vulnerable people, but it was apparent to them that this would not be able to identify everyone at the local level. In parallel, in response to the crisis the Information Commission Office relaxed the rules it had previously imposed in relation to data sharing between local partner agencies. This then enabled the local stakeholders in the LRF to improve their interoperability by sharing data in a manner that had not been seen as possible before the pandemic. As one stakeholder explained:

"...the relaxation of the rules mean that I now have access to data about those people in this county who are shielded and therefore are the most vulnerable from the worst sort of outcomes from fire in their homes. Same as police, worst outcomes from a point of view of crime as an individual. A reversion back to where the rules were will mean that that will get stopped. So, that sharing and that ability to be

⁶ Typically, the police will assume the role of the SCG Chairpersonship in an emergency where: "There is an immediate threat to human life; "There is a possibility that the emergency was a result of criminal or terrorist activity"; or "There are significant public order implications".

See: https://www.jesip.org.uk/uploads/media/pdf/5_Strategic_Coordinating_Group_Roles_Responsibilities.pdf

thoughtful about how we use the plethora of data that we have about our residents could get lost". Int. 29/04/20.

Having identified vulnerable people in the county, emphasis then shifted to establishing the infra-structure necessary to deliver food parcels to them. The LRF set up a distribution network involving a central hub with eight district centres. Each centre was then free to agree food procurement contracts locally. However, by the 1st of April it had become apparent to the SCG that the government had decided to centralise control of delivering food parcels and that as a result several locally agreed supply contracts had been subsequently lost to this central procurement process, in ways that undermined supply at the local level. Moreover, when the government food parcels subsequently arrived, they contained produce that was unsuitable for distribution to individual households (e.g., perishable items with short shelf life, 20 kilo bags of rice that required sub-division).

Food distribution was the first of several issues that formed a pattern over the course of the pandemic whereby government centralisation and micromanagement of important aspects of the contingency response disempowered the LRF's emerging ability to creatively solve local problems. For example, by 10th April, the government was coming under intense media scrutiny for the failure to provide frontline healthcare staff with adequate Personal Protective Equipment (PPE), with the Health Secretary announcing that a 'Herculean effort' is underway to resolve the issue⁷. Within the LRF, the operational challenge again revolved around procurement. Rather than developing procurement contracts locally the LRFs were instructed by Government that Department for Housing, Communities and Local Government (DHCLG) would be issuing PPE directly to LRFs, with associated directives on how it should be distributed to partner agencies⁸. The SCG subsequently allocated their supplies of PPE in line with this top-down instruction only to be told within 36 hours that the guidance had changed. This placed the SCG in the difficult position of having to potentially recall and redistribute PPE stocks, causing tension between the LRF partners.

⁷ <https://www.bbc.co.uk/news/uk-52248423>

⁸ It is the SCG rather than the LRF that has a defined response role according to the CCA, indicating a level of government misunderstanding of its own legislation and guidance.

By 14th April, it was also becoming increasingly clear that nationally the admission of care home residents discharged from hospital without being tested for COVID-19 was causing outbreak clusters. Yet at the same time, deaths in care homes were not being included in the daily death figures, with several charities including Age UK warning that older people were being ‘airbrushed’ out of official statistics⁹. Accordingly, in response the Care Quality Commission (CQC) – a government agency responsible for regulating all health and social care services in England – was mobilised by the Government. A mission statement published on the 15th April¹⁰ highlighted that the CQC would endeavour to utilise their national infrastructure to tackle the lack of COVID-19 testing in the adult social care sector. It also made clear that the CQC would launch a regular data collection intervention to ascertain the number of deaths within the care sector and to identify the specific *“COVID-19 related pressures – such as shortages of PPE – from services who provide care for people in their own homes”*¹¹.

This centralised imposition came as a surprise to the SCG, and several stakeholders felt it undermined their partnerships, with one interviewee describing the CQC on the 29th April as the *“new player in the response arm”*. This concern was amplified when the CQC informed the local partners to stop providing information through to the LRF data collection cell and that instead the CQC would act as the conduit for information and access. Thus, rather than scaffolding the local response this government led national intervention created fissures in this local partner’s relationships that they had worked hard to build from the bottom up through the LRF.

A third example, from late April onwards was an increasingly prominent issue nationally, Test, Trace and Isolate. Accordingly, the government appointed Baroness Dido Harding on 7th May as the Chair of the £37 billion national but privately run ‘Test and Trace’ programme¹². Thus, by the beginning of May a key issue for the SCG was how the national test and trace infrastructure would intersect with their LRF response. This was especially important given that the Prime Minister had announced plans to

⁹ See: <https://www.bbc.co.uk/news/health-52455072>

¹⁰ <https://www.cqc.org.uk/news/stories/cqc-sets-out-next-steps-support-adult-social-care-during-covid-19-pandemic>

¹¹ <https://www.cqc.org.uk/news/stories/cqc-sets-out-next-steps-support-adult-social-care-during-covid-19-pandemic>

¹² <https://www.gov.uk/government/news/new-chair-of-coronavirus-test-and-trace-programme-appointed>

significantly ease lockdown restrictions in the coming weeks. The Test and Trace system was designed and rolled out nationally but contained elements of local delivery. Accordingly, two largescale testing sites had been set up within the jurisdiction of the SCG as part of the national programme. Again, for the SCG and LRF, the issue revolved around centralised control not meeting local need. For instance, the CQC superseded local arrangements for testing by directing all care homes to apply for testing at the national sites using the government website. However, these locations had not been included on the list of test centres available to the public through 'gov.uk'. This meant that care home staff were instead being offered testing sites that were hundreds of miles away, despite substantial local capacity.

At the same time, the SCG and LRF were told that contact tracing would be devolved to the Local Authorities. Because of this, the LRF moved to create a specialist tracing operational cell which was led by a local authority. However, the LRF did not know what the contact tracing was supposed to entail (e.g., face to face meetings, Swabbing, Phone calls, etc). It was therefore extremely difficult for the tracing cell to mobilise the necessary activity and resources.

Phase 2: 10th May to 30th September 2020

Liberalisation and shifts to localised legal accountability.

It is apparent that as early as the 22nd April the SCG and LRF had reached a level of stability, refining their local response. Their strategic intentions and objectives were formalised and agreed and operational sub-groups delivering those objectives were operating with far less strategic direction necessary. This continued period of LRF 'stabilisation' coincided with a reduction in cases and deaths nationally, with the Prime Minister declaring on 30th April that the UK is 'past the peak'¹³. There was then the announcement by the Prime Minister on May 10th that there would be a 'phased unlocking' of restrictions throughout June and July (e.g., allowing meeting non-household members outside, and the reopening of retail outlets, pubs, and restaurants). This was shortly followed by newspaper revelations on the 22nd May that the Prime Minister's Chief Political Advisor had broken lockdown guidelines to drive his family hundreds of miles from London to Durham. In defending the Adviser's

¹³ See: <https://www.bbc.co.uk/news/uk-52493500>

actions, government ministers consistently evoked the notion of ‘personal responsibility’ and choice¹⁴.

Thus, the liberalisation of government restrictions, change in messaging towards ‘stay alert’¹⁵ and the political rhetoric of ‘common sense’ and ‘personal judgement’ arguably formed part of a framework whereby central government were seeking to devolve the responsibility of pandemic response to local structures (e.g., LRFs) and the public (e.g., employers, employees) to avoid blame for any uptick in cases and deaths in a potential second wave¹⁶. This shift by government was thus seemingly about the avoidance of legal accountability and liability. One of our stakeholders paraphrased a powerful account of the situation from the perspective of a key decision-maker within the SCG:

I think it's like, right folks, we [the Government] fixed it. We're going to give it to you [local responders] and then when it all goes wrong, it's not our fault [the government]. We gave it to you in good order. It's your fault it's all gone wrong. Int. 27/05/20.

Local outbreak control.

From as early as May 10th, the Prime Minister repeatedly suggested that England would implement a ‘whack-a-mole’ approach to control outbreaks in particular geographical areas, with localised public health measures being the primary response rather than a return to a national lockdown¹⁷. The first area to be subject to this was Leicester. On the 28th June, The Sunday Times reported that the government were considering imposing a localised lockdown in Leicester due to rises in infections¹⁸. By the 29th June, this was announced as policy by the Health Secretary¹⁹, with the

¹⁴ E.g. <https://www.politicshome.com/news/article/dominic-cummings-row-minister-says-families-should-try-their-best-to-follow-lockdown-rules>

¹⁵ The ‘roadmap’ towards loosening restrictions on May 10th was accompanied with a change of government messaging from the clear ‘Stay at home, protect the NHS, save lives’ to the near-universally derided slogan “Stay alert, control the virus, save lives”.

¹⁶ For instance, a report by the Independent SAGE group of scientists criticised the Prime Minister’s speech outlining a ‘return to work’ strategy without providing any framework or guidance as to how that could be safely achieved. See: <https://www.independentsage.org/wp-content/uploads/2020/05/The-Independent-SAGE-Report.pdf>

¹⁷ <https://news.sky.com/video/coronavirus-prime-minister-says-well-be-doing-whack-a-mole-on-local-flare-ups-11986745>

¹⁸ See: <https://www.bbc.co.uk/news/uk-england-leicestershire-53206506>

¹⁹ <https://www.bbc.co.uk/news/uk-england-leicestershire-53229371>

restrictions (including the closure of non-essential shops) coming into force the following day²⁰. To support this approach the government set up a £9 billion central agency – the Joint Biosecurity Centre (JBC) – with the aim to scaffold the local response with this new largescale national resource²¹.

However, mirroring their earlier experiences with the CQC, by the 8th July a key issue for the SCG and LRF was that there was a complete lack of clarity as to how the fledgling JBC would interface with existing response structures and thus what the JBC's precise role and purpose would be. This highlighted to our participants a continued experience of disconnect between the central and local level of the response. For instance, a key lesson they established from the experiences of local authorities in Leicester was the need for quick and operationally meaningful testing data to identify hotspots before spread becomes exponential. However, in common with responders in Leicester, our LRF found that national data gathering often did not correspond to what was needed locally. For example, the national testing data fed back into the national intelligence picture, which was not immediately available to partners within the LRF. By comparison, local testing data fed into local modelling and was immediately accessible. Moreover, the national Pillar 2 community testing data recorded a person's generic occupational data (e.g., 'factory worker'). This form of data was insufficient to enable an effective response and target local public health interventions, since there was a need for specific employment details and work addresses.

By contrast, the benefits of locally driven response to community outbreaks were becoming increasingly clear. For example, the SCG had developed a bespoke bandings 'thermometer'. This was also a 'live' and dynamic dashboard that worked on a traffic light classification system (i.e., green, yellow, and red) and enabled SCG/LRF partners to work to a shared and commonly agreed framework for how to respond swiftly to local outbreaks. The dashboard utilised both quantitative (e.g., case rates) and qualitative data (e.g., the 'look and feel' on the ground in communities) and

²⁰ <https://www.leicestermercury.co.uk/news/leicester-news/leicester-lockdown-rules-restrictions-confirmed-4279424>

²¹ <https://www.researchprofessionalnews.com/rr-news-uk-politics-2020-7-government-spending-9bn-on-covid-19-joint-biosecurity-center/>

allowed responders to determine what a local outbreak control response should look like based on the latest health data. The specificity of the data meant that the focus could be narrowed to specific premises or geographical areas, meaning that public health measures could be tailored to the specific circumstances and localities.

As one stakeholder made clear, the dashboard was an outcome of their effective local multi-agency partnerships and their collaborative leadership approach to outbreak management. This was highlighted in the LRF's response to two different 'types' of spikes in COVID-19 cases that occurred in August. The first example related to community transmission within households in a specific geographical area. Through access to the locally developed dashboard, the LRF and SCG were able to quickly determine that there were clusters of infections occurring within three geographical wards in the region. These clusters predominantly related to infections of South Asian families who often lived in multi-generational households. To suppress the outbreak, the local authority was able to draw on well-developed relationships with local community and faith leaders to embed these community leaders in the subsequent response (e.g., setting up testing in Mosques). Consequently, messaging for the importance of testing and maintaining social distancing was led by respected community members rather than "*unfamiliar people in suits*".

The second example related to a business premise rather than household transmission. Through social media the LRF became aware that a pub had breached social distancing rules, with hundreds of people attending over a three-day period. Unlike instances of geographical community spread, it was not immediately obvious from the data that there had been a serious outbreak since people had attended from across the LRF region and beyond. This example exposed a weakness of the national track and trace system since the central programme relied on venues collecting accurate and complete contact details of those attending. Without this information the nationally employed remote call staff did not have any other capacity to locate those who had been to the pub. Given that the pub in question had only gathered details for four people across the three-day period, the SCG had to mobilise their multiagency communications group. Accordingly, the printed press, social media and other websites were "*milked*" by LRF partners to encourage people who had been to the pub to attend a pop-up testing site created in the adjoining beer garden. Whilst the

pop-up site attracted over 1,000 people across a three-day period, by comparison the 'out-of-town' largescale national testing centre lay relatively dormant, utilising only 11% of its capacity. Therefore, this incident was subsequently fed back into the DHCLG by the LRF as a 'problem case' that emphasised the requirement for testing to be embedded within communities.

By 15th September there were increased numbers of infections across the county and the Upper Tier Local Authorities had set up Incident Management Teams (IMT) to provide specialist oversight of each significant outbreak of cases. Yet the ability of IMTs to respond and suppress infection rates was significantly curtailed due to the continued inadequacy of the national testing infrastructure. Thus, to address this issue the SCG chose to set up a local testing system to run in parallel to the national system so that the LRF would have access to data and thus be able to undertake fine-grained contact tracing. This involved establishing an independent booking system, testing locations and a workforce at considerable expense to the local authorities and competition from centralised procurement processes. As one stakeholder described, the SCG and LRF were essentially having to bypass the multi-billion-pound national infrastructure because it was not fit for local need. Consequently, they instead sought to empower and fund local ingenuity and entrepreneurialism.

The county council has said we'll swallow the costs, but they are eye watering. They are making a pragmatic decision about cost versus health and they are throwing money at it. We've done extraordinary things. We've shaken every contact tree we can get to try and find somebody with a lab. We're going internationally now to get that lab capacity. But it's madness. It is absolute madness that we are having to spend hundreds of thousands of pounds on tests that should be provided. The foundation of the government's track and trace system.

Int. 15/09/20

Phase 3: 30th September to 31st December 2020

Political Tiers.

On 30th September, the Prime Minister warned that the UK was at a ‘critical moment’ with cases, hospitalisations and deaths all increasing²². A day later the BBC reported that a three-tiered alert level system would be deployed in England²³. Tier 1 would be geographical areas with fewer than 100 Covid cases per 100,000 people and the prevailing national ‘baseline’ measures would be applicable in these areas (e.g., social distancing, facemask wearing on public transport, the ‘Rule of Six’). Tier 2 would involve enhanced measures such as a ban on inside gatherings for areas where cases were above 100 per 100,000. Tier 3 would be applied to those areas with “*significantly higher rates of transmission*”, with “*full lockdowns*” imposed, including closures of shops and other non-essential businesses.

By 2nd October it was already clear to our stakeholders that a Tier approach would be problematic. For instance, the LRF was aware that their geographical footprint was ‘sandwiched’ between two COVID hotspots from both the north and the south which contained major urban conurbations and thus areas where people travelled in and out for work. By the 14th October, the implementation issues of the Tier system were becoming more acute, with infections in the LRF’s region rising. For example, there was no definition of the indicative triggers for a change in Tiers or the geographical boundary areas and how granular they would be (e.g., whether Tier decisions be made at the ward, district, or borough level).

Moreover, a key issue from the LRF’s perspective was the degree to which there would be local consultation with regards to Tier decisions and who ultimately had the final decision. As it materialised, the decision for which Tier each of the two LA areas within the LRF’s jurisdiction would be placed in was taken at weekly ‘Bronze’ level national meetings that included DPHs and officials from national bodies such as PHE. The meetings were also attended by the Health Protection Board (HPB) which had “...a range of reporting arrangements into key elected members and political meetings”²⁴.

²² <https://www.bbc.co.uk/news/uk-54362900>

²³ <https://www.bbc.co.uk/news/uk-politics-54371943>

²⁴ <https://www.gov.uk/government/publications/containing-and-managing-local-coronavirus-covid-19-outbreaks/covid-19-contain-framework-a-guide-for-local-decision-makers#roles-and-responsibilities>

Group processes and interoperability

With the increased prominence of the HPB, political actors were now playing a direct role in the trajectory of operational decision-making for the first time. This new political dynamic had the potential to undermine key stakeholder relations at a local level.

The SCG had achieved agreement on the stance to seek to move to a common Tier for the whole county to maintain consistency and standardisation for both organisational delivery and public information sharing and compliance. For instance, the police were concerned about the consequences of the alert level changing across the county, with officers having to enforce enhanced Tier 2 restrictions in Local Authority 'A' and Tier 1 rules in neighbouring Local Authority 'B'.

During October 2020, it was indicated that one of the local authority areas would be moving to a different Tier to others in the county. The political dynamic, which included lobbying by political representatives, led to a decision being taken outside the SCG's agreed stance, which ultimately had different impacts upon partners in the LRF. Up until this point in time, the relationships between local and national tiers had predominantly been through officer contact but this marked an added dynamic for the SCG to consider, namely the roles political representatives had now been given within response decision making.

Therefore, whilst the government had been acting independently of local responders throughout the response, this episode was an example of local responders starting to act independently of each other. This was due to the increasing political dimension of operational response decision-making which created fissures in well-established local partnerships. However, the key difference from our stakeholder's perspective was that the SCG were able to utilise their strong personal informal and formal relationships to work through their differences at a local level in a way that was often not possible nationally with government.

By the 31st October all authorities entered Tier 2 restrictions, yet on the same day the Prime Minister announced a new four week lockdown to be implemented from the 5th November. This again highlighted the lack of communication and coordination from government, with local responders finding out about the national restrictions through the media. This was experienced as completely undermining the LRF's public

messaging campaign, which focused on the move from Tier 1 to Tier 2 and the associated curbs on indoor socialising.

On the 21st November, towards the end of the second national lockdown, the media reported that the government was planning to implement a stricter Tier system in England once the national lockdown ended on 2nd December²⁵. This meant that by 2nd December both LA areas were placed into Tier 3 – the highest level of restrictions – again with no prior local consultation. Instead, the JBC informed the outcome, with no input locally. As one stakeholder put it: *“We don’t know the names or the faces or the roles of those people that are actually putting those recommendations in. So, that opaque [Tier] system is even worse than it was before”*. By this point, there had already been considerable speculation in the media about the potential relaxation of restrictions during the Christmas holiday²⁶. Thus, it was extremely difficult for the LRF to plan and communicate with the public effectively, with the regulations changing from Tier 1 to Tier 2, to a national lockdown, to a revamped Tier 3, to the prospect of a Christmas ‘grace’ period in the space of a few weeks.

Concurrency and local resilience.

Yet, despite this continuing uncertainty at a national policy level, the LRF and SCG were increasingly confident in their local preparedness to deal with concurrent incidents because of the relationships they had built up throughout the pandemic. Correspondingly, by 2nd December their approach was characterised by pragmatism and the reality that other major incidents (including, at this time the prospect of a ‘no deal’ Brexit) would involve the same personnel and so it was inefficient to duplicate response structures. Instead, in the event of a concurrent incident, they planned to utilise existing operational sub-groups, broadening their scope to embrace any additional impact on their remit.

Thus, the need to administer the vaccine in mid-December was not viewed by our stakeholders as a new phase of the pandemic but rather a continuation of a long-running response process, characterised by the disconnect between the national and

²⁵ <https://www.theguardian.com/world/2020/nov/21/england-to-enter-stronger-three-tier-system-after-lockdown>

²⁶ <https://www.lbc.co.uk/news/families-allowed-meet-week-christmas-covid-lockdown/>

local level. For instance, the SCG and LRF were initially informed by government that largescale vaccination centres would be set up by the military as part of a national roll-out plan. However, the local level were then subsequently tasked with building the required infrastructure. Accordingly, this was viewed as simply the latest example of initial centralised government control, followed by decentralisation to the local level once delivery problems emerged.

[There has been]...this pattern of behaviour that we've seen from the government, that is: put a national system in place, the national system fails, they scrabble around for a few months, and then they give it to the local level to manage when it's got too hot to handle. Now that isn't a bad thing because we can manage it locally and actually xShire's been really brave. Int. 02/10/20

Discussion

The aim of this paper was to explore the complex group-level factors that (re)shaped the relationships between different local responder agencies and the government, during the first year of the COVID-19 pandemic. To achieve this, we undertook a case study approach. From March 2020 to February 2021, we regularly interviewed two senior responders, both of whom played key roles within their Local Resilience Forum (LRF) and Strategic Coordination Groups (SCG). Through these ethnographic semi-structured interviews, we documented contemporaneous evidence of the key challenges that they faced, how they overcame these challenges and the issues that they foresaw emerging in the future.

Our analysis suggested that the LRF and SCG developed an effective localised approach toward outbreak control and a growing resilience in dealing with concurrent emergency incidents. Part of this success seemed to revolve around their capacity to build a shared sense of identity between responders at the local level and this togetherness and collaborative leadership empowered their local response (Haslam et al., 2020). Yet all the way through national government agencies imposed central control on aspects of the response in ways that undermined, duplicated, or misaligned with their preparedness locally (see also Hall et al., 2021). Therefore, our analysis cautions against an approach that seeks to artificially untangle 'horizontal'

relationships from 'vertical' relationships because the experience and decision-making of local responders during the pandemic could not be adequately understood without reference to the actions and decisions of other groups such as the government.

Our findings have implications for the theoretical understanding of strategic decision-making during emergencies. For instance, our case study has challenged the notion of 'decision-inertia' and the corresponding conceptual focus on the 'ultimate' decision-maker (Alison et al., 2015; Power, 2015; Shortland et al., 2018), at the expense of studying the complex (inter)group processes and relations that characterise emergency decision-making and outcomes (see Davidson et al., 2020a, 2020b, 2020c, 2021; Stott et al., 2021). For example, our analysis has demonstrated the overt centralised political control of key aspects of the pandemic response, infrastructure, and resourcing that structurally constrained and sometimes actively undermined the capacity of local strategic leaders to respond optimally. Thus, political choices, including the imposition of centralised bodies such as the CQC and JBC, negatively impacted on the outcomes that local leaders were able to deliver in ways that are not explained by those in the LRF and SCG redundantly oscillating between action and inaction. Instead, strategic level local responders were operating and navigating a complex array of intergroup relationships characterised by a continued disconnect between central government and the LRF/SCG (Hill et al., 2021). The ability for the LRF to function successfully in this context often meant that senior leaders had to skilfully navigate central response structures and agencies to empower local partner activity and entrepreneurialism.

Moreover, our analysis highlights the need to broaden the conceptualisation of accountability beyond the idea that *personal* responsibility for decision-making motivates leaders to prioritise their own self-protection from censure (CREST, 2020). Instead, our paper shows that accountability can also operate at the intergroup level – that powerful groups such as a government can operate strategically in ways that seek to offload *collective* or group-level responsibility to less powerful groups or individuals (Cronin & Reicher, 2006, 2009; Reicher, 2021). Therefore, accountability relates to relations between groups as much as it refers to how leaders handle personal responsibility under intense pressure. Accordingly, strategic decision-makers must consider and resolve (often competing) accountability concerns from a range of

different 'audiences' (c.f., Bottoms & Tankebe, 2012) or groups (e.g., 'the public', media, politicians). Our work points to the utility of exploring how senior decision-makers balance or navigate these different accountability concerns (Cronin & Reicher, 2009).

More generally our analysis highlights the value of a locally embedded and funded public health response to pandemics (Sally, 2020). For instance, the analysis showed that the LRF partners were able to utilise their pre-existing knowledge of their communities and relationships with key community leaders in ways that empowered local people to achieve key goals such as increased testing and enhanced public health messaging in virus 'hotspots'. Our findings also demonstrated the relative impotence of national 'remote' systems such as Track and Trace compared to responses that were embedded within communities. Thus, our analysis suggests that local authorities are well placed to garner public support and legitimacy for, and compliance with, public health directives. This is, in part, through their ability to position themselves as *'of'* the community and acting *for* the community (c.f., Radburn et al., 2018, Radburn & Stott, 2019; Reicher & Stott, 2020; Stott et al., 2020). What is needed is appropriate funding and scaffolding from government agencies to support these activities (Reicher & Stott, 2020).

Yet our case study additionally highlights that the UK government appear to have consistently undermined the principle of subsidiarity throughout the pandemic (c.f., Hill et al., 2020a, 2020b, 2020c), despite this being a key principle underpinning the Civil Contingencies Act (CCA). Thus, our analysis demonstrates the need to review the government's relationship to operational incident management to protect local authorities from unnecessary central interference. Much like the effective local response to outbreaks relied on the LRF empowering the public, subsidiarity should mean that central authorities scaffold local authorities by providing support for aspects of the response that cannot be delivered locally. Although rare, our analysis did highlight one example of effective centralised scaffolding. The ICO's decision to relax data sharing rules decision served to empower local interoperability and thus enabled enhanced protection of vulnerable people. Therefore, one implication of our analysis is that there should be greater flexibility for inter-agency data-sharing (Waring et al.,

2018) where the Civil Contingencies Act may ‘trump’ data protection issues in emergency situations.

Despite these insights, there are some important limitations to our analysis that need to be acknowledged. These relate primarily to our case study approach which is both a key strength and weakness. On the one hand, we were able to utilise unfettered and continued access to two senior responders involved in the response of one LRF to the pandemic. This meant that we were able to document and explore the key local issues and challenges as they understood them. Accordingly, we were able to relate their strategic decision-making at a local level to their ongoing relationship with government at a national level throughout the first year of the response to the pandemic. However, whilst our approach may have naturalistic generalisability – that is, the findings resonate strongly with those experiences of key responders from other LRFs/SCGs (e.g., Hill et al., 2021), equally, our analysis may be limited to the locality in which we focused on. Additionally, the voices of other key responders within the LRF/SCG we have explored may have changed or challenged the ‘composite narrative’ (Willis, 2018, 2019) we have presented.

Notwithstanding these caveats, our work has contributed to the theoretical understanding of the social psychological factors that can shape the behaviour of responder agencies during a prolonged and unprecedented crisis. Our paper points to the critical importance of the relationships between the groups involved – both in terms of ‘horizontal’ relations within local response structures and the ‘vertical’ relations between the LRF/SCG and government. Our case study analysis demonstrated that during the COVID-19 pandemic the UK government operated in ways that undermined the principle of subsidiarity and damaged the ways in which the LRF could mobilise to help scaffold local community resilience.

References

Alison, L., Eyre, M., & Humann, M. (2011). Losing sight of the “Golden Mean”: Accountogenic decisions in UK policing. In *Informed by knowledge* (pp. 289-306). Psychology Press.

Alison, L., Power, N., van den Heuvel, C., Humann, M., Palasinski, M., & Crego, J. (2015). Decision inertia: Deciding between least worst outcomes in emergency responses to disasters. *Journal of Occupational and Organizational Psychology*, 88(2), 295-321.

Cabinet Office (2013). The role of Local Resilience Forums: A reference document. *London: Cabinet Office*.

Charmaz, K. (2014). *Constructing grounded theory*. Sage.

Civil Contingencies Act (2004). Public General Acts - Elizabeth II Chapter 36. *The Stationery Office: London*.

Cooke, N. J., Salas, E., Cannon-Bowers, J. A., & Stout, R. J. (2000). Measuring Team Knowledge. *Human Factors*, 42(1), 151–173.

CREST (2020). *Factors That Affect Command Decision-Making*. <https://www.crestresearch.ac.uk/download/2463/16-018-02.pdf>

Cronin, P., & Reicher, S. (2006). A study of the factors that influence how senior officers police crowd events: On SIDE outside the laboratory. *British Journal of Social Psychology*, 45(1), 175-196.

Cronin, P., & Reicher, S. (2009). Accountability processes and group dynamics: a SIDE perspective on the policing of an anti-capitalist riot. *European Journal of Social Psychology*, 39(2), 237-254.

Davidson, L., Carter, H., Drury J., Amlot R., Haslam A., Stott C. (2020a). *Covid-19: Evidence of 'what works' in an effective multi-agency response, Part I*. Crisis Response Journal. https://www.crisis-response.com/Articles/593161/Covid_19_Recommendations.aspx

Davidson, L., Carter, H., Drury J., Amlot R., Haslam A., Stott C. (2020b). *Covid-19: Evidence of 'what works' in an effective multi-agency response, Part II*. Crisis Response Journal. https://www.crisis-response.com/Articles/602036/ Covid_19.aspx

Davidson, L., Carter, H., Drury J., Amlot R., Haslam A., Stott C. (2020c). *Covid-19: Evidence of 'what works' in an effective multi-agency response, Part III*. Crisis Response Journal. https://www.crisis-response.com/Articles/593000/Covid_19_What.aspx

Davidson, L., Carter, H., Drury J., Amlot R., Haslam A., Stott C. (2021). Coming together to respond to Covid-19: Evidence of 'What Works' in a Multi-Agency Response: Report produced for the Home Office preparedness for Covid-19 (coronavirus) call for evidence (January 2021). <https://committees.parliament.uk/writtenevidence/21906/html/>

Haslam, S. A., Reicher, S. D., & Platow, M. J. (2020). *The new psychology of leadership: Identity, influence and power*. Routledge.

Hill, R., Guest, D., Pickford, R., Hopkinson, A., Towler, A., Crego, J. (2020a) First Interim Operational Review, Report, C19 National Foresight Group - <https://bit.ly/C19NFGIOR1>

Hill, R., Guest, D., Pickford, R., Hopkinson, A., Daszkiewicz, T., Whitton, S., Reed, I., Towler, A., Crego, J. (2020b) Second Interim Operational Review, Report, C19 National Foresight Group - <https://bit.ly/C19NFGIOR2>

Hill, R., Guest, D., Pickford, R., Hopkinson, A., Daszkiewicz, T., Whitton, S., Reed, I., Thomas, I., Crego, J. (2020c) Third Interim Operational Review, Report, C19 National Foresight Group - <https://bit.ly/IOR3C19NFG>

Hill, R., Stewart, S., Potter, A., Pickford, R., Smith, K. (2021) Managing the First 230 Days, Report, C19 National Foresight Group - <https://bit.ly/C19NFG230Days>

Hogg, M. A., & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. Routledge.

Neville, F. G., & Reicher, S. D. (2018). 12 Crowds, Social Identities, and the Shaping of Everyday Social Relations. *Political psychology: A social psychological approach*, 231.

Power, N. (2015). *Cognition in Crisis: Decision inertia and failures to take action in multi-agency emergency response command teams* (Doctoral dissertation, University of Liverpool).

Power, N. (2018). Extreme teams: Toward a greater understanding of multiagency teamwork during major emergencies and disasters. *American Psychologist*, 73(4), 478.

Power, N., & Alison, L. (2017). Redundant deliberation about negative consequences: Decision inertia in emergency responders. *Psychology, Public Policy, and Law*, 23(2), 243.

Radburn, M., Stott, C., Bradford, B., & Robinson, M. (2018). When is policing fair? Groups, identity and judgements of the procedural justice of coercive crowd policing. *Policing and Society*, 28(6), 647-664.

Radburn, M., & Stott, C. (2019). The social psychological processes of 'procedural justice': Concepts, critiques and opportunities. *Criminology & Criminal Justice*, 19(4), 421–438.

Radburn, M., Stott, C., Beale, M., Harrison M., Mycock, K., Kyprianides, A. (2021) Home Office preparedness for Covid-19: Response to call for written evidence. <https://committees.parliament.uk/writtenevidence/22298/html/>

Reicher, S. (2021). *Whatever Johnson says, we can't defeat Covid with 'personal responsibility' alone.* The Guardian. <https://www.theguardian.com/commentisfree/2021/jul/06/boris-johnson-policy-pandemic-restrictions>

Reicher, S., & Stott, C. (2020). Policing the coronavirus outbreak: processes and prospects for collective disorder. *Policing: A Journal of Policy and Practice*, 14(3), 569-573.

Salas, E., Sims, D. E., & Burke, C. S. (2005). Is there a "Big Five" in Teamwork? *Small Group Research*, 36(5), 555–599.

Salas, E., Cooke, N. J., & Rosen, M. A. (2008). On Teams, Teamwork, and Team Performance: Discoveries and Developments. *Human Factors*, 50(3), 540–547.

Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The science of teamwork: Progress, reflections, and the road ahead. *The American psychologist*, 73(4), 593–600.

Scally, G., Jacobson, B., Abbasi, K. (2020). *The UK's public health response to covid-19*. BMJ. <https://www.bmj.com/content/369/bmj.m1932>

Shortland, N., Alison, L., & Barrett-Pink, C. (2018). Military (in) decision-making process: a psychological framework to examine decision inertia in military operations. *Theoretical Issues in Ergonomics Science*, 19(6), 752-772.

Stott, C., West, O., & Harrison, M. (2020). A turning point, securitization, and policing in the context of Covid-19: building a new social contract between state and nation?. *Policing: A Journal of Policy and Practice*, 14(3), 574-578.

Stott, C., Radburn, M., Pearson, G., Harrison, M., Kyprianides, A., & Rowlands, D. (2021). *Police Powers and Public Assemblies: Learning from the Clapham Common 'Vigil' During the Covid-19 Pandemic*. SocArXiv. <https://osf.io/preprints/socarxiv/7jcsr/>

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*. (pp. 33–47). Brooks Cole.

Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and inter group relations* (pp. 15–40). Cambridge University Press.

- Turner, J. C. (1985). Social categorization and the self-concept: A social cognitive theory of group behavior. In E. J. Lawler (Ed.), *Advances in group processes: Theory and research.: Vol. Vol. 2* (pp. 77–122). JAI Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Basil Blackwell.
- van den Heuvel, C., Alison, L., & Crego, J. (2012). How uncertainty and accountability can derail strategic 'save life' decisions in counter-terrorism simulations: A descriptive model of choice deferral and omission bias. *Journal of Behavioral Decision Making*, 25(2), 165-187.
- Waring, S. K., Alison, L. J., Cunningham, S., & Whitfield, K. C. (2013). The impact of accountability on motivational goals and the quality of advice provided in crisis negotiations. *Psychology, Public Policy, and Law*, 19(2), 137.
- Waring, S., Alison, L., Carter, G., Barrett-Pink, C., Humann, M., Swan, L., & Zilinsky, T. (2018). Information sharing in interteam responses to disaster. *Journal of occupational and organizational psychology*, 91(3), 591-619.
- Waring, S., Moran, J. L., & Page, R. (2020). Decision-making in multiagency multiteam systems operating in extreme environments. *Journal of Occupational and Organizational Psychology*, 93(3), 629-653.
- Wilkinson, B., Cohen-Hatton, S. R., & Honey, R. C. (2019). Decision-making in multi-agency groups at simulated major incident emergencies: In situ analysis of adherence to UK doctrine. *Journal of Contingencies and Crisis Management*, 27(4), 306-316.
- Willis, R. (2018). How Members of Parliament understand and respond to climate change. *The Sociological Review*, 66(3), 475-491.

Group processes and interoperability

Willis, R. (2019). The use of composite narratives to present interview findings. *Qualitative Research, 19*(4), 471-480.