NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

A MORE PERFECT UNION: EXAMINING TRUST AND SOCIAL DYNAMICS FOR A BETTER INCIDENT COMMAND SYSTEM RESPONSE

by

Craig T. Solgat

December 2023

Co-Advisors: David W. Brannan (contractor)
Erik J. Dahl

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE	*Form Approved OMB No. 0704-0188*

1. AGENCY USE ONLY *(Leave blank)*	**2. REPORT DATE** December 2023	**3. REPORT TYPE AND DATES COVERED** Master's thesis

4. TITLE AND SUBTITLE A MORE PERFECT UNION: EXAMINING TRUST AND SOCIAL DYNAMICS FOR A BETTER INCIDENT COMMAND SYSTEM RESPONSE	**5. FUNDING NUMBERS**
6. AUTHOR(S) Craig T. Solgat	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000	**8. PERFORMING ORGANIZATION REPORT NUMBER**
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A	**10. SPONSORING / MONITORING AGENCY REPORT NUMBER**

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.	**12b. DISTRIBUTION CODE** A

13. ABSTRACT (maximum 200 words)

This thesis elevates the discourse on interagency collaboration within the homeland security enterprise (HSE) by dissecting the often-neglected elements of trust and effective communication. In a departure from traditional analyses, this study adopts the intricate framework of social identity processes to explore the architecture of group behavior, motivation, and dynamics. Unpacking the power of shared goals and experiences, the research investigates their potential to cultivate unity and solidarity—essential foundations for achieving efficient emergency response and a fortified homeland security ecosystem. The study goes beyond finding barriers and moves toward understanding the underlying elements that ease or obstruct effective collaboration. Drawing upon social identity processes, this research explores how motivations and behaviors within groups can be a transformative factor in creating a more unified approach to interagency collaborations. Through this lens, the research challenges existing paradigms and offers innovative pathways for building trust and improving communication. The ramifications of this thesis extend far beyond academic curiosity; they serve as a practical blueprint for policymakers and government practitioners. Offering more than theoretical insights, this research presents actionable strategies to meld disparate groups, reshaping how the HSE understands and enacts interagency collaboration.

14. SUBJECT TERMS social identity processes, conscription, Incident Command System, trust, communication	**15. NUMBER OF PAGES** 117
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT Unclassified	**18. SECURITY CLASSIFICATION OF THIS PAGE** Unclassified	**19. SECURITY CLASSIFICATION OF ABSTRACT** Unclassified	**20. LIMITATION OF ABSTRACT** UU

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. 239-18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release. Distribution is unlimited.

A MORE PERFECT UNION: EXAMINING TRUST AND SOCIAL DYNAMICS FOR A BETTER INCIDENT COMMAND SYSTEM RESPONSE

Craig T. Solgat
Captain, Metropolitan Police Department
BA, Michigan State University, 2005

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(HOMELAND SECURITY AND DEFENSE)**

from the

**NAVAL POSTGRADUATE SCHOOL
December 2023**

Approved by: David W. Brannan
Co-Advisor

Erik J. Dahl
Co-Advisor

Erik J. Dahl
Associate Professor, Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

This thesis elevates the discourse on interagency collaboration within the homeland security enterprise (HSE) by dissecting the often-neglected elements of trust and effective communication. In a departure from traditional analyses, this study adopts the intricate framework of social identity processes to explore the architecture of group behavior, motivation, and dynamics. Unpacking the power of shared goals and experiences, the research investigates their potential to cultivate unity and solidarity—essential foundations for achieving efficient emergency response and a fortified homeland security ecosystem. The study goes beyond finding barriers and moves toward understanding the underlying elements that ease or obstruct effective collaboration. Drawing upon social identity processes, this research explores how motivations and behaviors within groups can be a transformative factor in creating a more unified approach to interagency collaborations. Through this lens, the research challenges existing paradigms and offers innovative pathways for building trust and improving communication. The ramifications of this thesis extend far beyond academic curiosity; they serve as a practical blueprint for policymakers and government practitioners. Offering more than theoretical insights, this research presents actionable strategies to meld disparate groups, reshaping how the HSE understands and enacts interagency collaboration.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

LIST OF FIGURES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

APCO	Association of Public-Safety Communications Officials
ASAC	assistant special agent in charge
BPD	Boston Police Department
DHS	Department of Homeland Security
DWH	Deepwater Horizon
EOC	emergency operations center
FBI	Federal Bureau of Investigation
FDNY	New York City Fire Department
FEMA	Federal Emergency Management Agency
HSE	homeland security enterprise
ICS	Incident Command System
IDF	Israeli Defense Forces
MPD	Metropolitan Police Department
MSP	Massachusetts State Police
NDW	Naval District of Washington
NYPD	New York City Police Department
OCSO	Orange County Sheriff's Office
OPD	Orlando Police Department
SAF	Swedish Armed Forces
SCT	self-categorization theory
SIAM	social identity analytical method
SIT	social identity theory
SWAT	special weapons and tactics
USPP	United States Park Police

THIS PAGE INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

The need for collaboration within the homeland security enterprise (HSE) is critical, given its implications for national security and disaster response. Although advances in technology offer tools for better interagency interaction, challenges remain.[1] Specifically, ineffective communication and a lack of trust among participating agencies continue to hamper timely and coordinated efforts.[2] This thesis seeks to fill these gaps by addressing two primary research questions. First, how can interagency operations within the homeland security framework be improved? Second, does building trust serve as a solution to existing challenges in interagency collaboration?

The research employs a rigorous comparative case study methodology that analyzes several high-profile events: the Deepwater Horizon oil spill, Hurricane Katrina, the Camp Fire, the Boston Marathon bombing, the Navy Yard shooting, and the Pulse nightclub attack.[3] These case studies illuminate organizational, cultural, and procedural barriers that inhibit or foster collaboration. Additionally, they provide an empirical foundation to draw policy recommendations that could be broadly applied to the homeland security landscape.

---

[1] S. Glass, V. Muthukkumarasamy, and M. Portmann, "A Software-Defined Radio Receiver for APCO Project 25 Signals," in *Proceedings of the 2009 International Conference on Wireless Communications and Mobile Computing: Connecting the World Wirelessly* (New York: ACM, 2009), 67–72, https://doi.org/10.1145/1582379.1582395.

[2] Sarah Goodrum, William Woodward, and Andrew J. Thompson, "Sharing Information to Promote a Culture of Safety," *National Association of Secondary School Principals* 101, no. 3 (2017): 215–40; Susan Page Hocevar, Erik Jansen, and Gail Fann Thomas, "Inter-organizational Collaboration: Addressing the Challenge," *Homeland Security Affairs* 7, no. 2 (2011): 1–8.

[3] Eric Nielsen and Christopher Bodner, "Deepwater Horizon Leads to Programmatic Changes in Marine Environmental Response," *Coast Guard Journal of Safety & Security at Sea, Proceedings of the Marine Safety & Security Council* 77, no. 3 (Winter 2020): 1–130; Executive Office of the President, *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, DC: Executive Office of the President, 2006); Constant Associates, *After Action Report: The Camp Fire* (Torrance, CA: Constant Associates, 2019); Massachusetts Emergency Management Agency, *After Action Report for the Response to the 2013 Boston Marathon Bombings* (Boston: Massachusetts Emergency Management Agency, 2014), https://archives.lib.state.ma.us/handle/2452/264302; Metropolitan Police Department of the District of Columbia, *After Action Report: Washington Navy Yard, September 16, 2013* (Washington, DC: Metropolitan Police Department, 2014), https://mpdc.dc.gov/publication/mpd-navy-yard-after-action-report; Frank Straub et al., *Rescue, Response, and Resilience: A Critical Incident Review of the Orlando Public Safety Response to the Attack on the Pulse Nightclub* (Washington, DC: Office of Community Oriented Policing Services, 2017).

A. COMMUNICATION

Communication is vital in emergencies, particularly within the Incident Command System (ICS), which requires seamless information sharing across multiple agencies. Edward Bushman from the Los Angeles Fire Department has pointed out the catastrophic implications of communication failures, even in a technologically sophisticated era.[4] Effective communication involves more than merely transmitting data; it also entails grasping the context, interpreting complex scenarios, and guaranteeing that pertinent information reaches the appropriate individuals promptly.[5] Any lapse in this information exchange can have serious consequences, underlining the urgency for the HSE to proactively improve its internal communication strategies.

B. TRUST

Trust is another fundamental part of interagency collaboration. Studies from experts like Aniel Mishra demonstrate that trust can boost the quality and quantity of interagency communication.[6] Similarly, Michael J. Fahy from the New York City Fire Department has shown a lack of trust as a key obstacle to cooperation.[7] The research underscores trust in decision-making, resource allocation, and operational actions. However, trust is not a singular concept; it exists in various forms, dictating daily HSE interactions.[8] These encompass interpersonal trust within and across agencies, institutional trust in organizational integrity and competence, and systemic trust reflecting societal faith in governmental institutions.[9] These diverse forms of trust significantly moderate

[4] Edward Bushman, "Policy Options to Address Crucial Communication Gaps in the Incident Command System" (master's thesis, Naval Postgraduate School, 2012), https://hdl.handle.net/10945/17331.

[5] Bushman.

[6] Michael J. Fahy, "Understanding Swift Trust to Improve Interagency Collaboration in New York City" (master's thesis, Naval Postgraduate School, 2012), 23, https://hdl.handle.net/10945/17362.

[7] Fahy, 56.

[8] Kim Giffin, "The Contribution of Studies of Source Credibility to a Theory of Interpersonal Trust in the Communication Process," *Psychological Bulletin* 68, no. 2 (1967): 104–20, https://doi.org/10.1037/h0024833.

[9] Giffin.

individuals' actions and choices within interagency contexts.[10] This thesis delves into these nuances, emphasizing the need to cultivate trust at multiple levels to enhance operational effectiveness and national security, contributing to a comprehensive understanding of trust's multifaceted role in shaping interagency collaboration.

C. SOCIAL IDENTITY PROCESSES

This thesis adopts a robust analytical framework anchored in social identity theory (SIT) and self-categorization theory (SCT) to examine the challenges within government homeland security agencies comprehensively. By elucidating how individuals' social identities shape their behaviors and interactions within and outside these agencies, SIT and SCT supply invaluable insights into the dynamics of trust and cooperation.[11] Additionally, incorporating the social identity analytical method (SIAM) enriches the understanding of social processes that guide individuals' lives, facilitating a deeper exploration of in-group and out-group behavioral dynamics.[12] SIAM's components, including the limited good, challenge–response cycles, the honor–shame paradigm, and patron–client relationships, offer a structured foundation to scrutinize how social identities impact communication and trust-building.[13] By integrating these theories and SIAM, the HSE can better dissect the root causes of homeland security challenges and develop strategies that use social identity to enhance collaborative efforts and overall security effectiveness.

D. UNITY AND SOLIDARITY

The research also examines the merits of conscription systems, such as those used in the Israeli Defense Forces (IDF) and the Swedish Armed Forces (SAF), as mechanisms

[10] Denise M. Rousseau et al., "Not So Different after All: A Cross Discipline View of Trust," *Academy of Management Review* 23, no. 3 (July 1998): 393–404.

[11] Henri Tajfel, "Social Identity and Intergroup Behaviour," *Social Science Information* 13, no. 2 (April 1974): 65–93, https://doi.org/10.1177/053901847401300204; John C. Turner et al., "Self and Collective: Cognition and Social Context," *Personality & Social Psychology Bulletin* 20, no. 5 (1994): 454–63, https://doi.org/10.1177/0146167294205002.

[12] David W. Brannan and Anders Strindberg, "The Social Identity Analytical Method: Facilitating Social Science-Based Practitioner Analysis of Violent Substate Conflict," *Studies in Conflict & Terrorism* (September 2023): 1–19, https://doi.org/10.1080/1057610X.2023.2256538.

[13] Brannan and Strindberg.

for fostering national unity.[14] These systems underscore the significance of cultivating a shared national identity and collective objectives, bolstering military readiness, and enhancing solidarity and national unity during peacetime and crises. Through mandatory military service for virtually all Israeli citizens, the IDF forges deep bonds and a shared commitment to the nation's defense, transcending societal divisions.[15] Similarly, the SAF's conscription system, which emphasizes civic duties, fosters unity among citizens and promotes a collective mindset that extends beyond military operations into civilian life.[16] Drawing inspiration from these successful models, this thesis recommends considering mandatory civil service for all Americans to enhance communication, trust, and coordination in emergency response and disaster relief efforts, capitalizing on the power of shared identity and collective goals to strengthen national resilience.

This thesis goes beyond simply naming the challenges in HSE interagency collaboration. It offers a multidimensional approach, grounded in social identity processes, to devise actionable solutions for a unified, trust-based HSE. This approach is not only desirable but imperative for the future of U.S. national security, supplying crucial insights that can guide policymakers and practitioners in emergency management and homeland security. In a world that is growing more complex and less predictable, a cohesive and trust-based HSE system is essential, equipping those at the forefront of disaster response and national security with the knowledge and strategies to navigate intricate interagency collaborations effectively. By bridging theory and practice, this thesis serves as a roadmap for transforming fragmented efforts into a resilient and unified response to the nation's multifaceted challenges, significantly contributing to the discourse on HSE interagency collaboration.

[14] Yaron Girsh, "Negotiating the Uniform: Youth Attitudes towards Military Service in Israel," *YOUNG* 27, no. 3 (June 2019): 304–20, https://doi.org/10.1177/1103308818787647; Sanna Strand, "The Reactivation and Reimagination of Military Conscription in Sweden," *Armed Forces & Society* (2023): 1–21, https://doi.org/10.1177/0095327X231164740.

[15] Girsh, "Negotiating the Uniform."

[16] Strand, "Military Conscription in Sweden."

ACKNOWLEDGMENTS

The journey that culminated in completing this master's thesis has been nothing short of transformative, both academically and personally. This quest for knowledge was not confined to the intellectual boundaries of homeland security but encompassed a deeply personal voyage that enhanced my understanding of the nuances of social interactions and the subtleties of human relationships.

I extend my deepest gratitude to the distinguished faculty of the Naval Postgraduate School, whose instruction, mentorship, and genuine enthusiasm have been invaluable to my academic growth. You enriched my understanding of complex governmental processes and frameworks and kindled a renewed love for learning within me. The experiences I gained under your tutelage have been profoundly enlightening and will remain with me as I forge ahead in my career.

To my thesis advisory committee, your guidance made navigating the labyrinth of academic research a far more approachable task. Your collective wisdom often reminded me that "sometimes a good idea is just hiding behind a bad one"—a concept that became my North Star, leading me out of many a conceptual maze. Your insights were instrumental in shaping this research, and I am indebted to you for your unwavering support.

I would also like to express my appreciation to my writing coach whose expertise and genuine care transformed the daunting task of writing into a fulfilling endeavor. Your relentless encouragement and diligence did not go unnoticed or unappreciated.

Last, but certainly not least, my deepest, most heartfelt thanks go to my family—my unfaltering support system. During this demanding period, you took on daily tasks in my absence and gave me the emotional and practical sustenance to endure and succeed. Your sacrifices enabled me to remain committed, even when I felt most distant and preoccupied with my academic obligations. Your unwavering faith in my capabilities was a source of comfort and a potent stimulant for my aspirations. You encouraged me to grow as a student, professional, and human. You are the bedrock upon which all my achievements stand, and this accomplishment is as much yours as it is mine.

In summary, this thesis is not just an academic exercise but a manifestation of collective effort, love, and unwavering faith. I extend my sincerest gratitude and everlasting thanks to everyone who contributed to this journey.

I. INTRODUCTION

Collaboration within the homeland security enterprise (HSE) often faces obstacles, particularly during vital operations like those that require the use of the Incident Command System (ICS). Technological challenges and communication barriers historically converge, undermining cross-disciplinary collaboration among agencies whose rapid alliance in emergency response is paramount. At the crux of these partnerships lies communication. Yet, setbacks occur when agencies do not effectively share or act on vital information during these gatherings. Trust, as scholarly studies highlight, forms the bedrock of social interactions. Still, interagency incidents often see the shadow of distrust, with agencies and individuals sidelining each other's insights. To overcome this problem, this thesis endeavors to harness social identity processes, aiming for national unity and solidarity predicated on shared goals and experiences. Such efforts are critical to strengthening the nation's disaster response and creating a unified homeland security ecosystem.

A. PROBLEM STATEMENT

Achieving effective cross-disciplinary collaboration between HSE agencies is challenging. This situation, often made manifest during interagency operations such as ICS, is troublesome because the absence of collaboration can harm productivity and interdepartmental working relationships.[1] Collaboration requires information sharing, and researchers have documented adverse ICS outcomes from the failure to share information accurately.[2] Although some have attributed failures to technology issues, even after technology advances, the problem persists, suggesting the issue lies elsewhere. Interagency collaboration is a fundamental element of ICS, so the HSE must tackle its cross-disciplinary challenges.

[1] Douglas R. Templeton, "Assessing the Utility of Work Team Theory in a Unified Command Environment at Catastrophic Incidents" (master's thesis, Naval Postgraduate School, 2005), 2, https://hdl.handle.net/10945/2265.

[2] David S. Flamm, "A New Model for Understanding Incident Management" (master's thesis, Naval Postgraduate School, 2016), 2, https://hdl.handle.net/10945/51695.

ICS collaboration requires the sharing of information among different agencies; communication and information sharing are crucial elements of cooperation. Ineffective communication within ICS can lead to catastrophic consequences. Edward Bushman, battalion chief of the Los Angeles Fire Department, has pointed out that communications have failed in events of national significance, causing numerous response problems.[3] Further scholarly research has documented how incompatible radio equipment hampers communication and information sharing among practitioners within the HSE, thereby stifling collaborative efforts.[4] Despite addressing radio incompatibility, the HSE still experiences communication issues, thus indicating another cause.

One's willingness or reluctance to share information hinges on trust. As Aneil Mishra maintains, "Trust is . . . expected to increase the communication of undistorted, truthful, or candid information."[5] Conversely, Michael J. Fahy, battalion chief of the New York City Fire Department, identifies a lack of trust "as a cause preventing collaboration among emergency responders."[6] Trust influences the distribution and flow of information between agencies and the actions taken with the shared data. These actions are more likely when communications originate from those who are trusted or favored. Citing Tim Grice's study of a psychiatric hospital undergoing restructuring, Adam Wilson observes that interdisciplinary participants prefer communications from those who are members of both their work team and their profession.[7] In sum, trust is crucial in determining the level of confidence members grant to the information communicated between groups.

---

[3] Edward Bushman, "Policy Options to Address Crucial Communication Gaps in the Incident Command System" (master's thesis, Naval Postgraduate School, 2012), 4, https://hdl.handle.net/10945/17331.

[4] Michael J. Harrington, "New York City's First Responders: Enhancing Collaboration between NYPD and FDNY" (master's thesis, Naval Postgraduate School, 2014), xiii, https://hdl.handle.net/10945/44573.

[5] Aneil K. Mishra, "Organizational Responses to Crisis: The Centrality of Trust," in *Trust in Organizations: Frontiers of Theory and Research*, ed. Roderick Kramer and Tom Tyler (Thousand Oaks, CA: SAGE Publications, 1996), 273, https://doi.org/10.4135/9781452243610.

[6] Michael J. Fahy, "Understanding Swift Trust to Improve Interagency Collaboration in New York City" (master's thesis, Naval Postgraduate School, 2012), 56, https://hdl.handle.net/10945/17362.

[7] Adam E.-H. Wilson, "The Out Crowd: How Workplace Cliques Communicate Exclusion" (master's thesis, Gonzaga University, 2016), 10, ProQuest.

In the intricate realm of emergency incidents, successful collaboration necessitates profound trust, particularly when multidisciplinary teams coalesce to address challenges within temporal confines. Fahy remarks that emergency incidents require "a unique form of trust between groups or individuals brought together in temporary teams to accomplish specific tasks, often under severe time constraints."[8] Effective collaboration in such situations requires trust, but during interagency incidents, Fahy finds distrust of other organizations often prevails.[9] Moreover, agencies routinely characterize information from outside disciplines as anecdotal and ill-timed.[10] This criticism suggests that a lack of trust between agencies may impede successful collaboration.

Social identity dynamics may explain why agencies do not trust each other or share information. Social identity theory suggests that people enhance their self-identity through shared membership (in-group) and, conversely, attribute negative characteristics to those not part of the same (out-group).[11] Ashforth and Mael suggest, "The individual's social identity may be derived not only from the organization but also from his or her work group, department, [and] union."[12] Building on this perspective, the in-group shares an organizational culture and beliefs.[13] Fahy notes, "Trust is formed more easily between members of the in-group."[14] Social identity processes help explain how people interact with others of the group and, in contrast, how they do not.[15] Research in this area has concluded that "shared social identity may motivate individuals to be more receptive to

[8] Fahy, "Interagency Collaboration in New York City," 4.

[9] Fahy, 4.

[10] Harrington, "New York City's First Responders," 3.

[11] Fahy, "Interagency Collaboration in New York City," 55.

[12] Blake E. Ashforth and Fred Mael, "Social Identity Theory and the Organization," *Academy of Management Review* 14, no. 1 (1989): 22, https://doi.org/10.2307/258189.

[13] Ashforth and Mael, 22.

[14] Fahy, "Interagency Collaboration in New York City," 56.

[15] David Brannan, Kristin Darken, and Anders Strindberg, *A Practitioner's Way Forward: Terrorism Analysis* (Salinas, CA: Agile Press, 2014), 5.

ingroup communications . . . to be processed more fully and in greater depth."[16] Understanding the social identity processes is critical to explaining how groups interact.

This thesis helps to address the challenges of collaboration within the HSE by applying social identity dynamics to explore how the enterprise can unite the nation through shared goals and experiences. This thesis advances the understanding of inter- and intra-agency disaster response and makes recommendations to enhance collaboration and trust within the country.

B. RESEARCH QUESTIONS

1. How can we improve homeland security interagency operations?
2. Can improving trust help alleviate challenges during interagency collaboration?

C. LITERATURE REVIEW

In the face of burgeoning multifaceted threats to homeland security, management responsibilities extend beyond the capability of a single agency, underscoring the pressing need for integrated partnerships. This condition drives the demand for cohesive cooperation, often guided within a hierarchical framework. As interagency operations converge at expansive events, collaboration gaps surface conspicuously. Understanding the driving forces behind individual and collective actions becomes crucial to enhancing joint endeavors. This literature review begins by scrutinizing interagency operations and accentuating the pivotal role of ICS. Then, it delves into the dimensions of effective communication. An exhaustive exploration of trust paradigms ensues, probing foundational principles and the implications for social networks. Finally, it shifts focus to the complexities of social identity dynamics, highlighting their role in harmonizing identity and solidarity.

[16] Katharine H. Greenaway et al., "Shared Identity Is Key to Effective Communication," *Personality and Social Psychology Bulletin* 41, no. 2 (November 2014): 172, https://doi.org/10.1177/0146167214559709.

1. Historical Struggles during Interagency Operations

The implementation of ICS for homeland security efforts serves as a focal point for examining the complexity of interagency collaboration. Historical events like the response to Hurricane Katrina and the long-standing rivalry between the New York City Police Department (NYPD) and New York City Fire Department (FDNY) offer insights into systemic inefficiencies.[17] While scholars have scrutinized issues ranging from organizational culture to the frameworks underpinning collaboration, the effectiveness of ICS implementation is still a subject of concern. This analysis offers an in-depth understanding of the operational and procedural variables that influence interagency collaboration, focusing on the ICS. Thus, it aims to supply targeted strategies for improving collaborative outcomes in homeland security initiatives.

Scholarly research has long documented the ineffective collaboration of agencies within the ICS framework. As Teeter highlights,

> Basing their argument on a variety of incidents where management failures occurred, there are those who challenge the efficacy of ICS to be the nation's system. . . . The primary cause of these management failures is NIMS [National Incident Management System] and ICS implementation. This includes implementation on the grand scale of execution, training, and making the system our nation's system—i.e., as a policy.[18]

Teeter acknowledges the criticism of other practitioners that ICS has yet to be validated as the best solution for a national system.[19] Such critiques are not limited to a national response. Harrington's research yields similar findings at local levels of emergency management: "There are numerous anecdotal stories of members of the FDNY notifying the NYPD of suspicious activities with no evident response."[20] Given the extensive body

---

[17] Susan Page Hocevar, Erik Jansen, and Gail Fann Thomas, *Building Collaborative Capacity for Homeland Security*, NPS-GSBPP-04-008 (Monterey, CA: Naval Postgraduate School, 2004), https://hdl.handle.net/10945/571; Harrington, "New York City's First Responders."

[18] Andrew C. Teeter, "On a Clear Day, You Can See ICS: The Dying Art of Incident Command and the Normal Accident of NIMS—A Policy Analysis" (master's thesis, Naval Postgraduate School, 2013), 49, https://hdl.handle.net/10945/32908.

[19] Teeter, 52.

[20] Harrington, "New York City's First Responders," 22.

of scholarly work that questions the effectiveness of ICS in directing interagency collaboration, addressing these issues becomes a research and policy imperative.

While experts in the field of homeland safety may debate the suitability of using ICS, they do agree that a certain level of standardization is essential for effective emergency management. Although Edward Bushman states that "ICS is highly flexible in response to any incident type, scale, and location," its effectiveness has garnered mixed reviews, especially among law enforcement agencies.[21] Bushman points out that law enforcement has been less enthusiastic about adopting ICS due to the discipline's infrequent need for such high-level, coordinated responses.[22] This gap between promise and practice necessitates a more detailed exploration of the "who" and "how" of interagency collaboration. As Hocevar, Jansen, and Thomas emphasize, it would be infeasible for any single agency to manage the homeland security challenges of the 21st century independently; they also highlight the growing range of organizations deemed essential HSE collaborators.[23] Given this intricate landscape, an examination of ICS's structural and functional dimensions becomes imperative for fostering interagency cooperation. Therefore, this thesis builds on existing critiques by investigating the necessity of collaboration and outlining strategies for its effective execution across an array of agencies and organizations.

2. Communication

Researchers have focused on improving communication to promote interagency collaboration, implementing new policy options to close existing communication gaps, and modifying current technologies to aid in these endeavors.[24] Others have examined the role

[21] Bushman, "Crucial Communication Gaps in the Incident Command System," 21.

[22] Bushman, 22.

[23] Hocevar, Jansen, and Thomas, *Building Collaborative Capacity for Homeland Security*.

[24] Bushman, "Crucial Communication Gaps in the Incident Command System"; Susan G. Hutchins and Ronald P. Timmons, "Radio Interoperability: Addressing the Real Reason We Don't Communicate Well during Emergencies," in *Proceedings of the 11th International Command and Control Research and Technology Symposium* (International Command and Control Institute, 2006), 1–14, http://hdl.handle.net/10945/37902.

of group identity and culture and sub-group exclusion in collaboration.[25] This body of research illustrates that achieving organizational cohesiveness requires understanding and addressing the communication process.

While public safety executives recognize the need for communication interoperability and technical investments, existing efforts have not succeeded. Some scholars assert that certain responders must use discrete or encrypted communications.[26] In contrast, others have studied the possibility of implementing a cache of radios with predetermined frequencies to optimize communication between operations and command members.[27] Despite millions of dollars spent to alleviate technical problems, agencies and operators still do not communicate with one another.[28] Thus, the root of the issue seems to lie elsewhere.

The study of team dynamics is a long-standing inquiry and subject of contention. Douglas Templeton, who has studied team configuration and interorganizational network field testing for over 25 years, has examined the dynamics of individuals divided into "work teams" from multiple disciplines and agencies.[29] Templeton's work sheds light on occupational culture and explores the conflict surrounding information sharing.[30] He notes that successful teams employ a collective strategy through cooperative motivation and the structural dynamic of the involved members and agencies.[31] Templeton's work offers a baseline understanding of team/agency dynamics and culture that applies to emergency response. The enduring research shows significant interest in team dynamics.

Other experts affirm that the social nature of communication is another significant factor in team dynamics. Colin Cherry's statement that "communication is essentially a

---

[25] Greenaway et al., "Shared Identity"; Wilson, "The Out Crowd."

[26] R. Ranger Dorn, "Introduction to the National Incident Management System (NIMS) and the Incident Command System (ICS)—What It Means to You," *Sheriff* 57, no. 3 (June 2005): 60.

[27] Dorn, 60.

[28] Hutchins and Timmons, "Radio Interoperability," 1.

[29] Templeton, "Assessing the Utility of Work Team Theory," 3.

[30] Templeton, 5.

[31] Templeton, 7.

social affair" encapsulates the basis of human interactions.[32] Cherry's seminal work concerning human communication has been cited for decades. He likens communication to a system of networked social interactions imposed over one another.[33] Furthermore, he reasons that communication is a social function in which the organization or organism communicates by sharing elements of behavior through a set of defined rules.[34] Likewise, he asserts that "communication is the response of an organism to a stimulus."[35] Cherry's research depicts the essence of communication as sharing and reacting to various expressions. The study of workgroup communication aids the HSE's understanding of why unique groups clash. Adam Wilson contends that the knowledge from membership in informal groups helps leaders create a sense of community among peers.[36] Wilson notes that organizations and leaders often encourage group members to form teams (cliques) and adopt a shared view with their colleagues.[37] This grouping reinforces habits, strengthening the members' bonds.[38] On the other hand, it also leads to disorderly behaviors against those not affiliated with the team.[39] The insights from Cherry's and Wilson's work underscore the necessity of a comprehensive approach to interagency communication, emphasizing that it is not merely a technical issue but a complex interplay of social dynamics, group affiliations, and established norms.

Given the multifaceted nature of communication, a nuanced approach is essential for interagency collaboration. Technical and policy adjustments alone cannot resolve the issue; understanding team dynamics, culture, and social interaction is also necessary. This thesis aims to bridge these disparate elements by synthesizing technological, operational, and psychological factors into a comprehensive framework to improve interagency

[32] Colin Cherry, "On Human Communication," *Physics Today* 10, no. 5 (1957): 3, https://doi.org/10.1063/1.3060370.

[33] Cherry, 4.

[34] Cherry, 6.

[35] Cherry, 6.

[36] Wilson, "The Out Crowd," 6.

[37] Wilson, 5.

[38] Wilson, 5.

[39] Wilson, 5.

communication. In bringing together these various aspects, the thesis aspires to offer actionable recommendations that enhance communication efficiency and efficacy across multiple agencies and disciplines.

3. Trust

The relationship between trust and communication has gained scholarly attention across many contexts, including personal relationships, organizational culture, and high-risk sectors such as emergency response agencies. Fahy, for example, sheds light on how trust is deeply entrenched within organizational practices: "Individuals tend to distrust those outside the organization and its culture because it is unclear how they will act in a given circumstance."[40] This insight reveals that organizational bias may impede collaboration, underscoring the need to examine trust within the framework of organizational behavior. In addition to the structural aspects of trust, scholars like Richard Klok have emphasized its functional dimensions. As summarized by Klok, "Trust promotes adaptive organizational relationships, reduces harmful conflict, encourages the collaboration of ad hoc working teams, and promotes a better response to a crisis."[41] These functional perspectives give scholars and practitioners actionable insights for helping trust-building initiatives.

The existing body of scholarly work offers a comprehensive understanding of trust, examining its structural components, psychological foundations, and evolution over time. A significant contributor to the literature is Klok, who, citing Covey's model, outlines trust's four qualities: "intent, integrity, results, and capability."[42] This model deconstructs trust as an abstract concept and an "actionable asset," offering a practical framework for organizations to develop trust strategically.[43] Delving into the psychological underpinnings of trust, Kim Giffin defines it as reliance on various attributes such as

[40] Fahy, "Interagency Collaboration in New York City," 72.

[41] Richard L. Klok Jr., "'We Need a Bomb Tech . . . ' Integrating the Bomb Squad with SWAT" (master's thesis, Naval Postgraduate School, 2020), 9, https://hdl.handle.net/10945/66667.

[42] Klok, 100.

[43] Klok, 10.

integrity and justice.[44] Giffin acknowledges the critical role of trust in understanding social dynamics and personality development.[45] Additionally, Giffin discusses how one's role moderates the level of trust in communication, presenting the "trust one has of himself as a speaker" versus the "trust one has of himself as a listener."[46] On the other hand, Fahy turns the spotlight onto the temporal aspects of trust. Fahy's work addresses "the formation of swift trust among [New York City] first responders," specifically barriers to its development.[47] While some researchers argue that swift trust is needed in specific scenarios, the prevailing consensus leans toward the gradual evolution of trust over time, especially through repeated interactions and effective knowledge transfer.[48] These multiple perspectives enrich the HSE's understanding of trust and pave the way for future research to decipher its intricacies across different domains and contexts.

This literature review has shed light on the multifaceted nature of trust, showing its significance in various contexts, from organizational behavior to high-risk environments like emergency response agencies. The review has also scrutinized trust's structural and functional dimensions, supplying an actionable framework for trust-building within organizations. Building on this rich scholarly foundation, this thesis untangles the complex interplay of trust and communication in governmental settings. It aims to provide government practitioners with targeted recommendations for fostering an organizational culture that elevates trust and enhances collaboration and crisis response by integrating theoretical insights with empirical evidence.

D. RESEARCH DESIGN

This research employed a comparative case study method to examine challenges in interagency collaboration within the HSE. This method enabled an in-depth understanding

[44] Kim Giffin, "The Contribution of Studies of Source Credibility to a Theory of Interpersonal Trust in the Communication Process," *Psychological Bulletin* 68, no. 2 (1967): 104, https://doi.org/10.1037/h0024833.

[45] Giffin, 104.

[46] Giffin, 60.

[47] Fahy, "Interagency Collaboration in New York City," 18.

[48] Klok, "We Need a Bomb Tech," 37.

of organizational, cultural, and procedural barriers to collaboration. The analytical framework hinged on social identity markers. It incorporated an extensive review of academic literature, first-hand accounts, and case studies involving various agencies, including the U.S. Coast Guard and the Metropolitan Police Department of the District of Columbia. These diverse cases broadened the empirical base and offered tangible insights into the real-world challenges plaguing interagency collaborations, enhancing the study's generalizability and applicability for policy interventions.

A significant focus of the study involved investigating communication as a pivotal factor in interagency collaboration. Despite technological advancements, communication challenges have continued to hinder collaboration. Thus, the study incorporated scholarly literature on network cohesiveness, communication gaps, and group behavior to supply a multidimensional understanding of the factors influencing successful collaboration. Moreover, the study explored the element of trust, another cornerstone of interagency communication. This aspect of the research involved examining scholarly articles and theoretical frameworks that defined various dimensions of trust, including interpersonal and organizational facets. Analytical markers related to social identity motivations and intergroup emotions deepened the study's understanding of how trust interacts with organizational behavior. The analysis, which involved synthesizing the ICS model through the lens of social identity processes and detailing current interagency collaboration challenges, also drew insights from the practice of national conscription from Israel and Sweden. These examinations culminated in recommendations for improving collaboration within the HSE based on elements of effective communication and trust dynamics.

This thesis represents a rigorous analysis of existing shortcomings and offers evidence-based solutions that can serve as resources for policymakers and practitioners in emergency management and homeland security. The dual utility of this research makes it invaluable for those looking to enhance the effectiveness and efficiency of interagency operations.

E. CHAPTER OVERVIEW

This thesis embarks on a comprehensive examination of the elements critical to optimizing emergency management, beginning with Chapter II's historical exploration of ICS. This chapter traces ICS's historical trajectory and highlights its real-world applications and limitations through three vignettes. The chapter concludes that a historical understanding of ICS could be instrumental in its future refinement.

Chapter III turns its focus to the role of communication within ICS, analyzing three different case studies. The dissection of these cases shows the variables responsible for enhancing or undermining interagency collaboration. The chapter emphasizes the need to improve communication frameworks within ICS for better collaborative outcomes.

Chapter IV delves into the multifaceted concept of trust. It presents scholarly definitions, names various forms of trust, and describes trust's role as a moderating factor in group interactions. The chapter culminates in the understanding that trust dynamics can positively influence group cohesion and decision-making in emergency contexts.

Chapter V introduces the processes of social identity, notably through the lens of social identity theory, self-categorization theory, and the social identity analytical method. It contends that these theories, coupled with social change and solidarity, can be leveraged strategically to enhance group cohesion in emergency management scenarios.

Chapter VI proposes the creation of a national civil service program to bolster group cohesion and national solidarity. It offers examples from nations that have successfully implemented similar models and suggests potential pathways for future academic research. The chapter concludes this thesis by examining how a national civil service program could serve as a practical mechanism for applying the theoretical frameworks studied, thereby contributing to the field's pragmatic advancement and its scholarly depth.

II. THE EVOLUTION, PURPOSE, AND HISTORICAL SHORTFALLS OF THE ICS MODEL

In times of crisis and emergency, coordination and collaboration between agencies are critical to an effective response. ICS is a standardized framework for managing resources in response to emergencies. Developed by the fire service, ICS has evolved into a national standard through legislation and executive action, becoming a key component of NIMS. The ICS framework represents a command-and-control model that describes how agencies and their members coexist in emergencies. However, the success of ICS depends on effective coordination and collaboration, which have not always been the norm in multi-agency homeland security responses to disasters.

This chapter examines the evolution and design of ICS, from its development in California to its establishment as the national framework, offering a comprehensive view of its significance. It also defines coordination and recognizes the importance of effective communication. The chapter then supplies vignettes of momentous events, including Hurricane Katrina, the Deepwater Horizon oil spill, and the Camp Fire in California, to illustrate the crucial role of agency coordination in emergency management as well as ICS's flaws. This chapter underscores that trust is foundational to coordination and communication, shaping the safety and well-being of communities in times of crisis.

A. ICS EVOLUTION AND DESIGN

ICS has been used for decades as a standardized framework for managing resources in response to emergency incidents. A version of ICS first appeared in the 1970s, derived from a system called FIRESCOPE (Firefighting Resources of Southern California Organized for Potential Emergencies) developed by Southern California fire service leaders as a standardized response approach to large complex wildfires.[49] Given its success in the fire service, other emergency response agencies began experimenting with ICS in

[49] Federal Emergency Management Agency, *National Incident Management System*, 3rd ed. (Washington, DC: Federal Emergency Management Agency, 2017), 3, https://www.fema.gov/emergency-managers/nims.

their respective disciplines.[50] Teeter summarizes this early ICS growth as follows: "The fire service was the first discipline to embrace ICS, followed by local emergency managers and many law enforcement agencies."[51] In the aftermath of 9/11, the George W. Bush administration recognized the need to strengthen the nation's emergency management capabilities and improve interagency coordination and saw ICS as a solution.[52]

One of the critical steps taken by the Bush administration was to make NIMS and ICS the standard incident management system.[53] When the Department of Homeland Security (DHS) established NIMS, it included ICS as a key component of the national framework for emergency management.[54] The modern-day ICS, which evolved as emergency response agencies adapted to changing emergencies, was established in 2004 and revised in 2008 and 2017 as a national standard through legislation and executive action.[55] Today, ICS is widely used by emergency responders across the United States and has become the standard structure for incident management.

The ICS framework represents a command-and-control model that explains how agencies and their members coexist in emergencies. The ICS framework can operate in a single incident commander or unified command design.[56] Whichever model is used, its primary goal is to provide members with direction when working together.[57] The functions of ICS are "command, operations, planning, logistics, and finance/administration."[58] Members must collaborate with leadership to fulfill these functions. Likewise, standardized communications and agency interoperability are intended to facilitate leadership through

50 Teeter, "On a Clear Day, You Can See ICS," 16.

51 Teeter, 16.

52 Federal Emergency Management Agency, *National Incident Management System*, 4.

53 Bushman, "Crucial Communication Gaps in the Incident Command System," 2.

54 Federal Emergency Management Agency, *National Incident Management System*, 4.

55 Federal Emergency Management Agency, 4.

56 Federal Emergency Management Agency, 24.

57 Dorn, "Introduction to the National Incident Management System," 60.

58 Federal Emergency Management Agency, *National Incident Management System*, 24.

effective and efficient outcomes. The command-and-control model discourages independent action by funneling decisions through an established hierarchical framework.

The first design option for ICS entails a single incident commander. The Federal Emergency Management Agency (FEMA) defines the single incident commander design as follows:

> When an incident occurs within a single jurisdiction and without jurisdictional or functional agency overlap, the appropriate authority designates a single Incident Commander who has overall incident management responsibility. In some cases where incident management crosses jurisdictional and/or functional agency boundaries, the various jurisdictions and organizations may still agree to designate a single Incident Commander.[59]

Streamlining decision-making and establishing a unified command structure are crucial to efficient and effective incident management, regardless of jurisdictional or functional agency boundaries. This model is illustrated within the NIMS doctrine and reinforces the tiered command structure (see Figure 1).[60] The single incident commander design, as defined by FEMA, establishes the chain of command during emergencies.

[59] Federal Emergency Management Agency, 24.

[60] Federal Emergency Management Agency, 25.

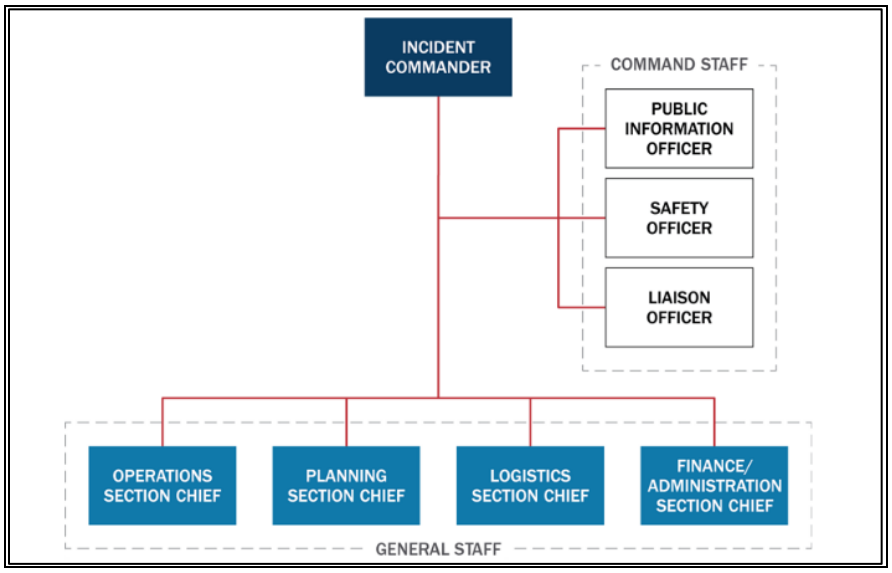

Figure 1. Chain of Command for the NIMS Incident Commander.[61]

Unified command is used when a collection of leaders facilitates coordination and communication among different agencies responding to a disaster or emergency. FEMA defines unified command as follows:

> When more than one agency has incident jurisdiction, or when incidents cross political jurisdictions, the use of Unified Command enables multiple organizations to perform the functions of the Incident Commander jointly. Each partner maintains authority, responsibility, and accountability for its personnel and other resources while jointly managing and directing incident activities by establishing a common set of incident objectives, strategies, and a single Incident Action Plan.[62]

Unified command facilitates cooperation among various agencies by consolidating objectives and strategies into a single incident action plan, even as each agency maintains control and responsibility for its resources.[63] Figure 2 illustrates this model incorporated into NIMS doctrine.[64] This structure encourages all agencies to work toward the same

[61] Source: Federal Emergency Management Agency, 25.

[62] Federal Emergency Management Agency, 4.

[63] Federal Emergency Management Agency, 25.

[64] Federal Emergency Management Agency, 26.

goal, share information and resources, and communicate through the same tiered command structure during emergency incidents.

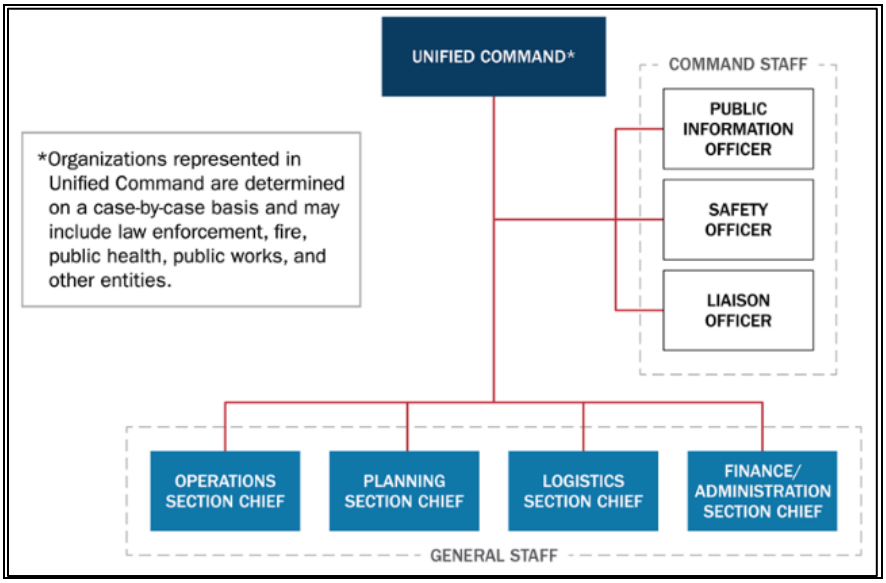

Figure 2. Chain of Command for the NIMS Unified Command.[65]

B. WHAT IS COORDINATION?

FEMA often uses coordination in the description of NIMS. The term points to the role of teamwork and collaboration across all facets of the system. In the introduction of the NIMS doctrine, FEMA defines *coordination* as "leadership roles, processes, and recommended organizational structures for incident management at the operational and incident support levels and . . . how these structures interact to manage incidents effectively and efficiently."[66] Defined simply, coordination is the harmony or synergy of two or more groups. The term appears a staggering 100 times throughout the NIMS doctrine.[67] Such frequency of use suggests that FEMA intended to highlight the concepts of teamwork and collaboration when designing the framework.

[65] Source: Federal Emergency Management Agency, 26.

[66] Federal Emergency Management Agency, 2.

[67] Federal Emergency Management Agency.

Agency coordination is crucial to emergency management, enabling various organizations and agencies to work together toward a common goal. Agency coordination involves alliance and communication between groups to share resources, information, and expertise in response to emergencies and to manage their impacts effectively. Various agencies may participate in emergency management, including federal, state, and local agencies, as well as non-governmental and private-sector organizations.[68] Agency coordination plays a pivotal role in emergency management by facilitating collaboration and communication among these different organizations, each with distinct roles and responsibilities, and ensuring a cohesive effort toward a shared objective.

The success of agency coordination depends on several factors, including effective communication, clear roles and responsibilities, and established trust and mutual respect between agencies. Communication is critical as it ensures that all agencies are informed and aware of relevant information, such as the scope of the emergency and the resources available.[69] Having clear roles and responsibilities helps to avoid confusion and overlap between agencies and ensures that each agency works toward a common goal. Trust and mutual respect between agencies are also important, as they help form a collaborative and cooperative culture that fosters agency coordination.[70] In sum, agency coordination facilitates a synchronized, efficient, and effective emergency response.

C. HISTORICAL ICS IMPLEMENTATION SHORTFALLS

Although ICS provides a standardized framework for managing emergency incidents, it assumes agencies coordinate and collaborate naturally. Yet, cross-disciplinary responses to homeland security threats that require collaboration have not always gone smoothly. Likewise, multi-agency responses to natural disasters have been fraught with issues, and conflicts between the organizations have challenged the operations' success. Scholarly research and analyses of multi-agency responses continually highlight how these conflicts weaken collaboration. While ICS is designed to facilitate coordination between

[68] Federal Emergency Management Agency.

[69] Federal Emergency Management Agency.

[70] Later chapters explore this trust paradigm of NIMS and ICS in greater detail.

distinct agencies, the presumption that agencies wish to coordinate and collaborate with one another is a shortcoming.

The 9/11 attacks underscored the need for improved communication and coordination between agencies in emergency response efforts, as local first responders and federal partners struggled with an incident of unprecedented scale and complexity. The response effort suffered from a lack of clear leadership and communication between the different agencies, particularly the FDNY, the NYPD, and FEMA.[71] There were also issues with resource allocation and management. The scale of the disaster was overwhelming, and resources were spread thin, resulting in delays and inadequate support for rescue efforts.[72] This critical learning experience from the 9/11 attacks emphasized the importance of a standardized ICS for more effective future responses.

1. Hurricane Katrina, 2005

ICS was in place during the response to Hurricane Katrina, but its implementation has been deemed a significant failure of emergency management.[73] Despite the ICS framework's existence, the response to the storm revealed critical leadership, communication, and coordination flaws, resulting in widespread devastation and loss of life. Morris, Morris, and Jones have noted that these shortcomings "serve [d] to heighten the importance of understanding why the system failed and len [t] urgency to the discovery of new coordination regimes and mechanisms that [could] prevent future failures."[74] Thus, Hurricane Katrina illustrated the importance of continuously evaluating and refining coordination strategies within ICS to improve responses to future emergencies and minimize tragic outcomes.

---

[71] National Commission on Terrorist Attacks upon the United States, *The 9/11 Commission Report* (New York: W. W. Norton, 2004).

[72] National Commission on Terrorist Attacks upon the United States.

[73] John C. Morris, Elizabeth D. Morris, and Dale M. Jones, "Reaching for the Philosopher's Stone: Contingent Coordination and the Military's Response to Hurricane Katrina," *Public Administration Review* 67, no. 1 (December 2007): 94–106, https://doi.org/10.1111/j.1540-6210.2007.00818.x.

[74] Morris, Morris, and Jones, 94.

The failures in leadership, communication, and coordination during Hurricane Katrina's response, despite the use of ICS, revealed a deep-seated problem within the organizational culture of the responding entities. The storm's impact was devastating, bringing about more than 1,800 deaths and displacing hundreds of thousands.[75] As Morris, Morris, and Jones highlighted, in the face of such a catastrophic event, the fundamental issue was a lack of clear leadership, communication, and coordination among the various agencies involved in the response efforts.[76] An examination of the management response to Hurricane Katrina underscored the organizational cultures' significant impact "on the ability of one organization to coordinate successfully with others."[77] Despite implementing ICS, the government was unprepared to coordinate the multi-agency effort required to respond to the disaster. Therefore, by transforming organizational cultures, future emergency responses may be better coordinated and more effective and may save more lives.

The response to Hurricane Katrina exposed a cascade of failures at various government and emergency management levels.[78] The magnitude of Hurricane Katrina's impact required collaboration among multiple federal, state, and local agencies, non-governmental organizations, and private-sector actors. However, the existing coordination mechanisms were insufficient, leading to fragmented efforts. Agencies operated in silos with limited interoperability and failed to pool resources and expertise effectively.[79] As a result, decision-making processes were slow and disjointed and lacked clear authority and direction, leading to delayed critical actions such as evacuations and provisions of emergency resources.[80] These deficiencies further worsened the impact of the disaster, leaving affected areas in a state of devastation. Adding to the challenges, communication

[75] Morris, Morris, and Jones, 103.

[76] Morris, Morris, and Jones, 97.

[77] Morris, Morris, and Jones, 103.

[78] Executive Office of the President, *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, DC: Executive Office of the President, 2006), 51.

[79] Morris, Morris, and Jones, "Reaching for the Philosopher's Stone," 97.

[80] Morris, Morris, and Jones, 97.

breakdowns severely hindered the response effort.[81] Agencies and organizations involved in the disaster response struggled to share information efficiently and effectively.[82] Communication channels were overwhelmed, causing delays in issuing crucial updates to all parties involved. The lack of coordination created disarray and redundant efforts and significantly reduced situational awareness among responders.[83] The failures in leadership, communication, and coordination exposed the shortcomings of ICS implementation during the response to Hurricane Katrina. While ICS provides a framework for managing incidents, its success depends heavily on the organizations' culture and preparedness. The government's inadequate preparedness, insufficient training, and lack of interagency coordination significantly hampered the effectiveness of ICS during this crisis.[84]

In the aftermath of Hurricane Katrina, the failures in emergency management prompted a comprehensive reevaluation of disaster response strategies and organizational structures that cited a staggering 125 recommendations for improvements.[85] The response to Hurricane Katrina is a reminder of the importance of strong leadership, effective communication, and coordinated action in emergency management. It highlights the need for continuous evaluation and improvement of response systems, as well as the critical role of organizational culture in ensuring successful coordination among different entities during times of crisis.

2. Deepwater Horizon, 2010

The incident involving the Deepwater Horizon (DWH) oil spill in 2010 highlighted the shortcomings of ICS in managing a large-scale complex disaster.[86] The explosion on

[81] Morris, Morris, and Jones, 102.

[82] Morris, Morris, and Jones, 94.

[83] Executive Office of the President, *The Federal Response to Hurricane Katrina*.

[84] Executive Office of the President, 52.

[85] Executive Office of the President, 87.

[86] Eric Nielsen and Christopher Bodner, "Deepwater Horizon Leads to Programmatic Changes in Marine Environmental Response," *Coast Guard Journal of Safety & Security at Sea, Proceedings of the Marine Safety & Security Council* 77, no. 3 (Winter 2020): 1–130; U.S. Coast Guard, *On Scene Coordinator Report: Deepwater Horizon Oil Spill* (Washington, DC: U.S. Coast Guard, 2011), https://repository.library.noaa.gov/view/noaa/283.

the DWH oil rig resulted in the tragic loss of 11 lives and caused extensive environmental damage due to the subsequent oil spill in the Gulf of Mexico.[87]

The central challenge that emerged in managing the Deepwater Horizon oil spill was the absence of collaboration among the multiple agencies involved.[88] However, in this example, the response efforts required collaboration between international stakeholders during the crisis.[89] In their assessment of the DWH response, Nielsen and Bodner highlighted this deficiency: "The DWH response illustrated the limitations of planning and coordination with international stakeholders."[90] Likewise, during the early stages of ICS, the volume of information requests was beyond the group's capability.[91] The U.S. national response team acknowledged this shortfall: "The internal and external demand for immediate spill response information often caused a departure from the ICS information protocols."[92] The incident served as a reminder that responses to large-scale environmental incidents may necessitate robust coordination and cooperation on an international scale.

The complexities of addressing such incidents demand high preparedness and interoperability among different agencies and nations. Nielsen and Bodner noted, "In 2016, the U.S. government collaborated with the International Maritime Organization to publish new guidelines for international offers of assistance to a marine oil pollution incident."[93] While such measures are a good start to alleviate interoperability challenges, they may still be insufficient. In a 2020 publication, U.S. Coast Guard members acknowledged the progress made in addressing the risks and challenges identified after the DWH incident: "Through organizational change, interagency coordination, evolving response strategies, and preparedness initiatives, the Coast Guard has, over the past decade, identified and addressed numerous risks to the success and efficiency of future response operations.

87 Nielsen and Bodner, "Deepwater Horizon Leads to Programmatic Changes."

88 U.S. Coast Guard, *On Scene Coordinator Report*, 189.

89 Nielsen and Bodner, "Deepwater Horizon Leads to Programmatic Changes," 64.

90 Nielsen and Bodner, 64.

91 U.S. Coast Guard, *On Scene Coordinator Report*, 192.

92 U.S. Coast Guard, 192.

93 Nielsen and Bodner, "Deepwater Horizon Leads to Programmatic Changes," 64.

However, risk remains and challenges persist."[94] Despite revisions to ICS and other doctrines following the DWH incident, collaboration challenges continue to hamper response efforts.

The incident has served as a catalyst for reevaluating and enhancing the ICS framework to address the complexities of large-scale environmental and international disasters. The revisions have aimed to improve coordination, interoperability, and communication among agencies and international stakeholders involved in future response operations. This case serves as a sobering reminder of the importance of effective planning, coordination, and international cooperation in managing and responding to environmental disasters. It highlights the need for ongoing efforts to enhance the capabilities of ICS and strengthen coordination and collaboration.

3. Camp Fire, 2018

ICS implementation during the 2018 Camp Fire may be one of the most powerful examples of system failure due to ineffective collaboration between responders. When it occurred, the Camp Fire set a grim record as California's most lethal wildfire, claiming the lives of 85 individuals and laying waste to almost 19,000 buildings.[95] To manage the crisis, various agencies, including the California Department of Forestry and Fire Protection (Cal Fire) and FEMA, were involved in the response effort.[96]

The response to the Camp Fire drew heavy criticism due to its sluggish and inadequate nature. The city's after-action report recognized that coordination was a significant area for improvement: "Due to the rapidly changing incident which caused the failure of communication systems, there was a lack of coordination between responding agencies concerning the mass notification process during the Camp Fire. These shortfalls

[94] Nielsen and Bodner, 64.

[95] Catrin M. Edgeley, "Exploring the Social Legacy of Frequent Wildfires: Organizational Responses for Community Recovery following the 2018 Camp Fire," *International Journal of Disaster Risk Reduction* 70 (December 2021): 1–13, https://doi.org/10.1016/j.ijdrr.2021.102772.

[96] Edgeley, 2.

resulted in delayed or absent emergency notifications."[97] However, other reports suggested that the main point of contention surrounded the substantial differences in approaches between local and federal agencies, which sparked conflict among the entities.[98] Edgeley illustrated how dire the situation became: "Literally, the [national-level organization] representative and the [local-level organization] representatives got in such a huge argument that they had to call the police in Butte County. And that stem [med] from long-term resentments in that area."[99] These long-standing resentments and tensions in the area worsened the already challenging circumstances. In the aftermath, the Town of Paradise appeared to acknowledge this shortfall, recommending that "Town of Paradise, Paradise Police Department, BCSO [Butte County Sheriff's Office], and Cal Fire should meet to agree upon how information should flow from the field to the Town EOC [emergency operations center] regarding evacuation orders."[100] As described by Edgeley, the "absence of coordination or communication among organizations involved in recovery can foster long-lasting conflict, restricted access to resources, and distrust that can hinder recovery and create obstacles to assistance during subsequent hazard events."[101] Edgeley expanded on the aspect of trust by describing one interviewee's assessment: "A challenge for us is to just really commit to building trust in a new community, to understand the complexities of the issues that existed before this fire happened and are now exacerbated due to displacement and all the other things that a fire of this magnitude affects."[102] The listless response to the Camp Fire highlights the pressing need for collaboration and coordination among emergency responders during times of crisis. It illustrates the profound consequences of different groups' distrusting one another and choosing not to collaborate.

[97] Constant Associates, *After Action Report: The Camp Fire* (Torrance, CA: Constant Associates, 2019), 5.

[98] Edgeley, "Exploring the Social Legacy of Frequent Wildfires," 5.

[99] Edgeley, 6.

[100] Constant Associates, *The Camp Fire*, 36.

[101] Edgeley, "Exploring the Social Legacy of Frequent Wildfires," 2.

[102] Edgeley, 7.

D. CONCLUSION

ICS is the established framework for emergency response, supplying a standardized approach to managing resources during crises.[103] ICS has evolved from its origins in Southern California as a response to large wildfires to a national standard through legislation and executive action. Designed as a command-and-control model, ICS can operate under a single incident commander or a unified command design. The framework's aim is to facilitate collaboration between agencies, yet robust partnerships are not the norm. During times of crisis, disjointed communication, competing agendas, and distrust have arisen despite the ICS framework, as illustrated during Hurricane Katrina, the Deepwater Horizon oil spill, and the Camp Fire in California. Coordination ensures that agencies work together, share resources and information, and establish trust and mutual respect to achieve a cohesive effort toward a shared objective. The failure of emergency response organizations to collaborate can lead to severe consequences and impede rescue efforts, as shown in the vignettes.

Turning the page to the next chapter of this thesis reveals the complex universe of ICS communications. Through the lens of recent history—the Boston Marathon, Washington Navy Yard, and Pulse nightclub incidents—Chapter III uncovers challenges that often hinder dialogues. The chapter highlights the intricate relationships that link communication, trust, decision-making, and operational efficiency within the ICS framework. By the chapter's conclusion, readers will have a profound understanding of how communication can determine success or catastrophe in homeland security.

[103] Federal Emergency Management Agency, *National Incident Management System*.

THIS PAGE INTENTIONALLY LEFT BLANK

III. THE ROLE OF COMMUNICATION IN ICS

The last chapter's exploration of ICS—from its fire service origins to a national standard—showed the framework's reliance on collaboration and coordination, especially in multi-agency responses. It traced the evolution of ICS to explain what effective coordination means in emergency response situations, probing trust's shadowy role in communication. This chapter illuminates the critical role of communication in emergency response, which directly affects community safety, by examining the shortcomings of ICS.

Communication plays a crucial role in the success of ICS, particularly in complex and rapidly evolving emergencies. Effective communication becomes even more vital when managing incidents involving multiple agencies, as it ensures coordinated response efforts and efficient resource allocation. However, various challenges can impede communication within ICS, including disparate communication systems and protocols, inadequate technology, language barriers, cultural differences, and competing agendas among stakeholders. Conversely, effective communication generates many positive outcomes. The complexities and necessities of communication are significant to the HSE, which heavily relies on communication during disaster response.

This chapter explores how communication plays an inherent role in ICS by examining research and advances in communications technology and the social nature of communication.[104] The Boston Marathon bombing, the Washington Navy Yard shooting, and Pulse nightclub shooting are presented to illustrate the social nature of communication during recent multi-agency responses to disasters.[105] By studying how effective communication enhances the flow of information, facilitates decision-making, improves coordination and collaboration, and ultimately boosts operational efficiency within the ICS framework, the HSE can understand the critical role that communication plays in

[104] Lena Podoletz, "We Have to Talk about Emotional AI and Crime," *AI & Society* 38, no. 3 (June 2023): 1067–82, https://doi.org/10.1007/s00146-022-01435-w.

[105] Patrick Melmer et al., "Mass Casualty Shootings and Emergency Preparedness: A Multidisciplinary Approach for an Unpredictable Event," *Journal of Multidisciplinary Healthcare* 12 (December 2019): 1013–21, https://doi.org/10.2147/JMDH.S219021.

successful outcomes and, conversely, its absence plays in potentially catastrophic consequences.

A. UNDERSTANDING COMMUNICATION NETWORKS AND GAPS

This thesis defines *effective communication* in ICS as the timely exchange of information among incident commanders, responders, and other relevant parties. It entails conveying critical information clearly and concisely. Likewise, communication involves receiving and understanding the information provided by another party. In his seminal work, Cherry provides, "Communication is essentially a social affair."[106] The concept of communication is not limited merely to the spoken word. Cherry proffers, "Speech and writing are by no means our only systems of communication. Social intercourse is greatly strengthened by habits of gesture—little movements of the hands and face. With nods, smiles, frowns, handshakes, and other gestures we can convey most subtle understanding."[107] Effective communication in ICS involves fostering social interaction through a shared understanding of the incident, facilitating collaborative decision-making, building relationships and trust among involved parties, and enhancing situational awareness.

Radio interoperability, the ability of different agencies to communicate using unique radio systems, has been a long-standing challenge since 9/11.[108] Over the years, government organizations and the Association of Public-Safety Communications Officials (APCO) have made efforts to address the issue of radio interoperability and improve communication capabilities between various agencies involved in incident response.[109] One of the critical solutions implemented to enhance radio interoperability has been the development and adoption of standardized communication protocols and technologies.

---

106 Cherry, "On Human Communication," 3.

107 Cherry, 3.

108 McKinsey & Company, *Increasing FDNY's Preparedness* (New York: Fire Department of the City of New York, 2002), https://www.nyc.gov/assets/fdny/downloads/pdf/about/mckinsey_report.pdf.

109 S. Glass, V. Muthukkumarasamy, and M. Portmann, "A Software-Defined Radio Receiver for APCO Project 25 Signals," in *Proceedings of the 2009 International Conference on Wireless Communications and Mobile Computing: Connecting the World Wirelessly* (New York: ACM, 2009), 67, https://doi.org/10.1145/1582379.1582395.

APCO Project 25, the digital communications standard among first responders in the United States, enables interoperability across different radio platforms and among various government organizations and civilian volunteers.[110] While significant progress has been made in achieving radio interoperability since 9/11, communication gaps remain, suggesting the root of the problem lies elsewhere.

Another hurdle is the cultural and organizational barriers among agencies. Each agency has its own communication culture, language, and protocols, which can create confusion and hinder coordination during incidents. FEMA highlights the challenge of cultural and organizational barriers among agencies in the communications management section of its NIMS doctrine: "The use of common terminology helps incident personnel from different disciplines, jurisdictions, organizations, and agencies communicate and effectively coordinate activities."[111] FEMA continues:

> Using plain language and clear text, not codes, in incident management is a matter of public safety, especially the safety of incident personnel and those affected by the incident. Personnel should use plain language in all communications between organizational elements during an incident, whether oral or written, to help ensure that personnel are disseminating information in a timely and clear manner and that all intended recipients understand. Personnel should avoid using acronyms or jargon unique to an agency, organization, or jurisdiction during incidents that involve multiple jurisdictions or organizations.[112]

Overcoming these barriers requires a concerted effort in interagency collaboration, mutual understanding, and standardized communication protocols across different cultures.

The frequency of communication only partially determines the effectiveness of coordination among the involved agencies in the ICS framework. It is not enough for information to be exchanged; it must also be acted upon to achieve desired outcomes. As stated by Cherry, "Communication is the discriminatory response of an organism to a stimulus."[113] Given this explanation, communication is a decision that involves deliberate

---

[110] Glass, Muthukkumarasamy, and Portmann, 67–68.

[111] Federal Emergency Management Agency, *National Incident Management System*, 57.

[112] Federal Emergency Management Agency, 57.

[113] Cherry, "On Human Communication," 6.

engagement between individuals—a social act. This social aspect of communication poses a significant challenge to interagency frameworks like ICS, whereby institutional barriers hinder the free flow of information. As Cherry recognizes,

> A society has a structure, definite sets of relationships between individuals which is not formless and haphazard but organized. Hierarchies may exist and be recognized, in a family, a business, an institution, a factory, or an army—functional relationships which decide to a great extent the patterned flow of communication.[114]

These functional relationships determine how people communicate within systems. By acknowledging the social nature of communication and recognizing the importance of breaking down institutional barriers, ICS can improve coordination, enhance decision-making, and produce more successful outcomes in emergency response efforts.

Despite creative solutions to alleviate communication issues with ICS, these problems persist and are a cause for concern, as groups need to communicate through the framework's hierarchy. These institutional barriers and silos fragment communication channels and limited information sharing, thus hindering the overall response efforts.

B. WHY COMMUNICATE?

Seamless communication may be the lynchpin to successful interagency collaboration. Through it, organizations may synchronize their endeavors, use resources economically, avoid duplication of efforts, and enhance overall effectiveness for a unified and coordinated response. As Cherry notes, "A conversation forms a two-way communication link; there is a measure of symmetry between the parties, and messages pass to and fro. There is a continual stimulus-response, cyclic action; remarks call up other remarks, and the behavior of the two individuals becomes concerted, co-operative, and directed toward some goal."[115] Additionally, communication plays a vital role in maintaining situational awareness. It ensures that all stakeholders involved in the incident are well-informed of the evolving situation, including its scope, risks, and mitigation

[114] Cherry, 8.

[115] Cherry, 17.

strategies. A shared understanding allows practitioners to adapt their response strategies and make informed decisions. Moreover, effective communication promotes transparency, fosters trust, and mitigates misunderstandings or conflicts among distinct groups, leading to a more cohesive, successful response effort.

Three incidents demonstrate the significant role that group communication plays during a crisis. The Boston Marathon bombing, the Washington Navy Yard shooting, and the Pulse nightclub shooting were notable events that saw the involvement of emergency responders from multiple disciplines.[116] The study of these incidents reveals the significance of communication within ICS, demonstrating both commendable and inadequate communication. These events highlight the importance of shared purpose, common goals, and collective identity among emergency responders.[117] This commonality enables them to work together, exchange critical information, and synchronize their efforts to manage crises and protect the public.

1. The Boston Marathon Bombing

The Boston Marathon bombing was a significant event that underscored the importance of communication and interagency coordination within ICS during emergency response. This case study examines the communication practices among numerous first responders from various agencies during the initial attack and subsequent manhunt for the two bombers over several days. Coordination and communication among the agencies varied from effective to ineffective at different stages of the response. Analyzing the

116 Massachusetts Emergency Management Agency, *After Action Report for the Response to the 2013 Boston Marathon Bombings* (Boston: Massachusetts Emergency Management Agency, 2014), https://archives.lib.state.ma.us/handle/2452/264302; Metropolitan Police Department of the District of Columbia, *After Action Report: Washington Navy Yard, September 16, 2013* (Washington, DC: Metropolitan Police Department, 2014), https://mpdc.dc.gov/publication/mpd-navy-yard-after-action-report; City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report* (Orlando: City of Orlando Office of Emergency Management, 2018), https://www.fla-pac.org/wp-content/uploads/2019/07/Pulse-Tragedy-EM-AAR-Final.pdf.

117 Massachusetts Emergency Management Agency, *Boston Marathon Bombings*; Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*; Frank Straub et al., *Rescue, Response, and Resilience: A Critical Incident Review of the Orlando Public Safety Response to the Attack on the Pulse Nightclub* (Washington, DC: Office of Community Oriented Policing Services, 2017).

successes and challenges encountered during this incident yields valuable insights into communication and interagency coordination.

The bombing occurred on April 15, 2013, during the Boston Marathon.[118] The attack claimed the lives of three innocent individuals and injured another 264, many of whom sustained severe injuries.[119] Those murdered included Martin Richard, an eight-year-old boy; Krystle Campbell, a 29-year-old woman; and Lingzi Lu, a 23-year-old student.[120] The perpetrators of the bombing were two brothers, Tamerlan and Dzhokhar Tsarnaev. The brothers positioned homemade explosive devices close to the marathon's finish line, where they detonated almost simultaneously.[121] The explosions caused chaos and panic among the event runners, spectators, and first responders. A protracted manhunt ensued, during which the city of Boston and its surrounding areas were put on lockdown.[122] The coordination among law enforcement agencies increased significantly during this phase, requiring continuous communication among the various agencies to locate the brothers. On April 19, Tamerlan Tsarnaev detonated more explosive devices and engaged in a shootout with the police, resulting in his death. Dzhokhar Tsarnaev was apprehended later that day after a dramatic confrontation with law enforcement officers, signaling the conclusion of the attack.[123]

In response to the incident, numerous agencies and organizations became involved in the investigation following a request for mutual aid. These included local, state, and federal law enforcement agencies such as the Boston Police Department (BPD), the Massachusetts State Police (MSP), the Federal Bureau of Investigation, and other

118 Department of Homeland Security, Office of Emergency Communications, *Emergency Communications Case Study: Emergency Communications during the Response to the Boston Marathon Bombing* (Washington, DC: Department of Homeland Security, 2013), 2.

119 Massachusetts Emergency Management Agency, *Boston Marathon Bombings*, 15.

120 Massachusetts Emergency Management Agency, 15.

121 Massachusetts Emergency Management Agency, 15.

122 Department of Homeland Security, Office of Emergency Communications, *Response to the Boston Marathon Bombing*, 2.

123 Massachusetts Emergency Management Agency, *Boston Marathon Bombings*, 18.

intelligence and security agencies.[124] Initially, the response from law enforcement agencies was swift and coordinated, with immediate efforts to secure the area, provide medical assistance to the injured, and initiate the investigative process.[125] As the Massachusetts Emergency Management Agency mentions in its after-action report, "Unified Command began to form moments after the explosions when senior law enforcement and emergency management officials came together on Boylston Street and immediately began coordinating priorities."[126] The involved agencies unified their response efforts through the common goals they shared.

Following the initial response, multiple command centers, operations centers, and command posts were set up to provide support.[127] This decentralization created confusion regarding each agency's role, responsibilities, and authority. With multiple centers in operation, it became challenging to establish a unified communication framework and ensure the flow of information among the different entities.[128] While the intention behind creating these centers may have been to enhance coordination, it added another layer of complexity. One DHS case study recognized that agencies had not been communicating: "During the response to the bombings and the subsequent investigation and manhunt, public safety was reminded of the need for communications staff and operational staff to work in concert to ensure seamless response efforts."[129] This finding is important, as after-action reports from other emergency responses have indicated parallel operations centers hinder communication and coordination efforts.[130]

[124] Massachusetts Emergency Management Agency, 4.

[125] Massachusetts Emergency Management Agency, 4.

[126] Massachusetts Emergency Management Agency, 4.

[127] Massachusetts Emergency Management Agency, 88.

[128] Massachusetts Emergency Management Agency, 88.

[129] Department of Homeland Security, Office of Emergency Communications, *Response to the Boston Marathon Bombing*, 3.

[130] Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*; Connecticut State Police, *After Action Report: Newtown Shooting Incident, December 14, 2012* (Middletown: Connecticut State Police, 2018), https://portal.ct.gov/-/media/DESPP/DSP/CSPAARpdf.pdf.

During the hunt for the two Boston Marathon bombers, the response experienced information gaps and breakdowns in communication, highlighting the challenges faced in coordinating a large-scale operation over several days. One such example of communication breakdown occurred during the shootout with the suspects on April 19. An MSP truck was mistakenly reported as stolen during the chaotic and rapidly evolving situation; however, an MSP and BPD officer occupied the vehicle and were unknowingly fired upon by fellow officers.[131] The events' speed presented significant challenges in relaying prompt, accurate information among the responding law enforcement units. In this case, the lack of communication between law enforcement agencies led to confusion, potentially compromising the safety of officers and the public. As the shootout unfolded, different units and agencies on the ground were faced with making split-second decisions while lacking comprehensive situational awareness. The dynamic nature of the incident and the rapidly changing circumstances further exacerbated the communication difficulties. To promote effective tactical operations in fast-paced and high-stress situations like shootouts, agencies must relay information promptly and accurately.

The Boston Marathon bombing and the subsequent manhunt demonstrate the critical role of communication and interagency coordination in emergency response situations. While communication failures hindered aspects of the response effort, successful moments showcased the benefits of effective collaboration. Valuable lessons for improving communication practices and enhancing interagency coordination in future emergency responses can come from analyzing successes and challenges.

2. The Washington Navy Yard Shooting

Lessons from the Navy Yard shooting in Washington, DC, also emphasize the importance of ICS communication.[132] This case study examines the response and interagency efforts of law enforcement, emergency responders, and military personnel following the shooting. It analyzes ineffective communication examples observed during the initial incident and subsequent investigation. A unique understanding of the role of

[131] Massachusetts Emergency Management Agency, *Boston Marathon Bombings*, 28.

[132] Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*.

communication in local, federal, and military coordination emerges from studying these challenges.

The shooting occurred on September 16, 2013, at the Washington Navy Yard, a military installation in Washington, DC. The incident involved a lone gunman, Aaron Alexis, a former Navy reservist, and raised concerns about security and the response of law enforcement agencies.[133] Alexis entered Building 197 at the Navy Yard facility armed with a shotgun and opened fire on innocent employees and military personnel.[134] The attack resulted in the loss of 12 lives, including 11 Navy personnel and one civilian contractor, and injuries to several others.[135] Military personnel from the Naval District of Washington Police; agents from the Naval Criminal Investigative Service; military police; and law enforcement officers from the Metropolitan Police Department of the District of Columbia (MPD), the United States Park Police (USPP), and the Metro Transit Police formed several interagency active-shooter teams while searching for Alexis.[136] As he moved throughout the building, Alexis engaged in several gun battles with law enforcement, shooting two MPD officers before being killed in the exchange.[137] In neutralizing the shooter, the police ended the threat but marked the beginning of the largest mass-casualty investigation in the nation's capital.

At times, the military and local public safety agency cultures hindered the ability to communicate and thus coordinate the response effort. One example involved pre-event communication or, more appropriately, the lack thereof. The MPD and military personnel had never established a communication cycle between the two groups, which led to

[133] District of Columbia Homeland Security and Emergency Management Agency, *The District of Columbia Communications Interoperability Summit: A 6 Year Review of the Washington Navy Yard Shooting* (Washington, DC: Homeland Security and Emergency Management Agency, 2019), https://www.domesticpreparedness.com/wp-content/uploads/2023/08/navy_yard_book_9_12_19_final.pdf.

[134] Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*, 3.

[135] Metropolitan Police Department of the District of Columbia, 3.

[136] Metropolitan Police Department of the District of Columbia, 19.

[137] Metropolitan Police Department of the District of Columbia, 20.

unfamiliarity and disjointed efforts in the initial law enforcement response.[138] The MPD's after-action report highlights that each group operated autonomously from the other:

> MPD officers do not regularly patrol the grounds of the Navy Yard since it is a gated military base. The Navy Yard installation is patrolled by its own police personnel, the Naval District of Washington (NDW) Police. The Navy Yard also has a handful of armed Military Police (MP) personnel, contract security officers (both armed and unarmed), and its own fire department and emergency medical services.[139]

The initial 9-1-1 calls exacerbated this failure to establish pre-event communications. Following the recommendations from the Fort Hood shooting in 2009, the Navy Yard had set up an internal emergency call-taking and dispatch center separate from the District of Columbia's traditional Office of Communications.[140] As a result, much of the early information gleaned from 9-1-1 calls was never provided to the responding MPD officers.[141] Likewise, the first MPD officers to arrive at the facility encountered an abandoned and locked security gate at the entrance, which was part of the compound's emergency protocols.[142] Consequently, the unfamiliar MPD officers did not know the facility's layout or the gunman's description, nor did they encounter anyone from which to glean this information, thus delaying their response.

Direct communications between the various government agencies, including radio communications and direct conversations, were problematic.[143] For example, the MPD after-action report emphasizes this point during the final gun battle:

> The USPP officer states over the Park Police radio channel that the suspect is down. Officials in Unified Command hear this transmission, but it will take several additional minutes for confirmation from other officers that the gunman is down. These communications on multiple channels by officers inside Building 197, which is discussed in Observation 8, serve as an important reminder that, for safety reasons and clear communications, all of

138 Metropolitan Police Department of the District of Columbia, 10.

139 Metropolitan Police Department of the District of Columbia, 10.

140 Metropolitan Police Department of the District of Columbia, 13.

141 District of Columbia Homeland Security and Emergency Management Agency, *6 Year Review*, 13.

142 Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*, 15.

143 District of Columbia Homeland Security and Emergency Management Agency, *6 Year Review*, 15.

> the officers conducting the tactical search for the gunman should be operating on the same radio channel.[144]

During the investigative phase of the incident, communication channels were hindered as some agencies remained on their own command buses, which "caused significant challenges in ensuring all agencies had representation in Unified Command . . . thereby diluting representation throughout the command structure."[145] Moreover, some agencies chose not to coordinate efforts at all: "While most of the critical roles were established early in the response, there were various branches and functions that were not clearly or effectively established and not all responding agencies reported to Unified Command."[146] Such communication challenges are significant as they can impede coordination and collaboration during critical situations, potentially impacting the overall response and resolution.

As discussed in previous chapters, a major emphasis in ICS has been on radio communications and interoperability since 9/11.[147] The analysis of the Navy Yard shooting was no exception. In a paradoxical evaluation, the after-action report cited agencies' inability to speak to one another because too many individuals were on the same channel:

> It should be noted that MPD's radio channels are encrypted. In order to access those channels, other agencies' radios must be programmed with proper access codes. . . . While we identified some additional officers from other agencies who should have access to MPD's channels, one major issue with radio transmissions that day stemmed from too many individuals having access to the channel.[148]

With more than 1,000 radios congesting a single channel at the height of the crisis, "personnel who had entered the building and the forward commander coordinating the contact teams were unable to transmit vital information to one another due to the heavy

144 Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*, 20.

145 Metropolitan Police Department of the District of Columbia, 40.

146 Metropolitan Police Department of the District of Columbia, 38.

147 McKinsey & Company, *Increasing FDNY's Preparedness*.

148 Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*, 52.

radio traffic."[149] The Navy Yard shooting showed how complex the issue of radio communication and interoperability is in response to critical incidents.

The Navy Yard shooting in Washington, DC, is another reminder of communication's importance in coordinating across agencies with ICS. The initial incident and subsequent investigation provide a unique understanding of communication's role in coordinated local, federal, and military operations.

3. The Pulse Nightclub Shooting

The Pulse nightclub shooting in Orlando, Florida, is a compelling ICS case study because it demonstrates how effective communication can aid a multi-agency response.[150] In response to this incident, law enforcement agencies showed the framework's power when embracing communication. With established relationships, shared goals, and trust among first responders, they swiftly implemented the principles of coordination and communication.[151] The response effort highlighted both principles as significant strengths. The collaborative spirit among the responders played a pivotal role in the successful management of the incident.[152] The Pulse nightclub shooting is a testament to how established lines of communication through fostered relationships can produce common goals and enhance trust, optimizing emergency response efforts and saving lives.

The Pulse nightclub shooting occurred on June 12, 2016, in Orlando, Florida, and was one of the deadliest mass shootings in the United States.[153] The shooter, Omar Mateen, entered the Pulse nightclub with a semi-automatic rifle and handgun, took hostages, and barricaded himself within the building. He began indiscriminately firing at the clubgoers, creating chaos and terror within the establishment. The shooting resulted in the devastating loss of 49 innocent lives, with an additional 53 individuals injured.[154] In response to the

[149] Metropolitan Police Department of the District of Columbia, 52.

[150] Straub et al., *Orlando Public Safety Response*.

[151] City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report*, 4.

[152] Straub et al., *Orlando Public Safety Response*, x.

[153] Straub et al.

[154] Straub et al., 2.

tragedy, numerous local and federal law enforcement agencies participated in the incident. They worked together to establish a perimeter, engage the shooter, and assist the injured. In a decisive operation, a special weapons and tactics (SWAT) team breached the nightclub and engaged Mateen, resulting in his death and ending the immediate threat posed by the attacker.[155]

The response to the attack on Pulse nightclub benefited significantly from well-established interagency relationships, which had been developed through earlier collaborations.[156] These previous events promoted trust and familiarity between the different groups. The Orlando Police Department (OPD)'s successful response to the Pulse nightclub terrorist attack relied on its ability to collaborate, leverage pre-existing relationships, and form partnerships with federal, state, and local public safety agencies.[157] These relationships were significant considering the volume of organizations that assisted in the response. Before daybreak, a coalition of 27 emergency response organizations actively engaged in freeing hostages, supplying urgent medical aid to severely injured individuals, and subduing the perpetrator.[158] Nevertheless, communication channels were not impervious to flaws. According to one after-action report, "At times it was difficult to pass information between the EOC, FRC [Family Reunification Center], and FAC [Family Assistance Center]. The information flow, coordination, and resource requests between multiple locations would have worked more efficiently had there been dedicated individuals to handle these tasks."[159] These relationships proved essential in facilitating information sharing and communication channels during the incident, demonstrating the importance of unified and coordinated responses during critical incidents.

Pre-existing relationships extended to agency leaders and command personnel. Historical examples of interagency operations, such as the Camp Fire response, did not

[155] Straub et al., 2.

[156] Straub et al.

[157] Straub et al., xi.

[158] Straub et al., 2.

[159] City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report*, 17.

embrace such relationships.[160] As Straub et al. note, "Jurisdictional and operational decisions can be contentious during routine incidents. When incidents such as the attack at the Pulse nightclub occur, a decision on who should lead the response and which agencies should play a supporting role can become particularly antagonistic."[161] Straub et al. elaborate:

> At the federal level, the Federal Bureau of Investigation's (FBI) assistant special agent in charge (ASAC) of the Tampa field office—whose responsibility extended to Orlando—had long-standing, trusting relationships with both Chief Mina and Sheriff Demings. The ASAC, Ron Hopper, had worked with the two local leaders for many years prior to the attack on Pulse, including supporting both agencies during operations and facilitating antiterrorism training for both the OPD and the OCSO [Orange County Sheriff's Office]. The relationship between Hopper, Mina, Demings, and SAC Banks proved to be critical during the early stages of the attack at Pulse and during the weeks that followed as information was openly exchanged between the leaders and their agencies worked cooperatively.[162]

This statement underscores the importance of establishing relationships between agency leaders and command personnel for successful operations. This importance cannot be overstated because many familiar with emergency response scenarios recognize that strong interagency relationships influence the speed and efficiency of jurisdictional decisions and communications during critical incidents. Therefore, these relationships serve as the bedrock for expeditious and coordinated actions, enhancing the overall effectiveness of emergency responses.

The shared identity among responders played a crucial role in the success of communication during the response to the Pulse nightclub attack. Responders shared a sense of purpose and commitment to public safety, transcending individual agency affiliations. This dynamic resulted in the free flow of information and intelligence. According to Straub et al.,

---

[160] Constant Associates, *The Camp Fire*.

[161] Straub et al., *Orlando Public Safety Response*, 35.

[162] Straub et al., 37.

> Every public safety leader interviewed by the assessment team reported that the biggest advantage they had while managing the response was the relationships they had developed over many years of working together and supporting one another, in whatever way needed, regardless of their title or agency affiliation. These pre-existing relationships led to the open and honest sharing of information, open discussions between federal officials and their local counterparts regarding the terrorist designation of the attack, decisions regarding who would lead the response and the terrorism investigation, what roles and responsibilities different agencies would play, the order in which they would speak during press conferences, and how information would be provided to the media and the community.[163]

This shared identity fostered a cohesive and coordinated response, as leaders from different agencies worked together to address challenges, allocate resources, and make critical decisions throughout the operation. The City of Orlando's after-action report highlighted that law enforcement, fire services, and other responders set aside jurisdictional or agency-specific interests by focusing on collective success and the well-being of the affected community, resulting in effective communication, collaboration, and a shared purpose throughout the response effort.[164] Straub et al. summarized how profound this detail was to the success of the multi-agency response: "While individual law enforcement and elected officials took charge of specific aspects of the response—tactical operations and investigations; media relations and public information; setting up a centralized donation site; and providing services to the victims and their families—no single individual claimed responsibility or credit for the response."[165] Straub et al. underscored the vital role of a collaborative ethos in successful multi-agency responses. By noting that no single entity claimed credit, they emphasized the collective focus on crisis management over jurisdictional interests. Such a mindset directly contributes to effective communication and collaboration, reinforcing the importance of unified efforts in handling emergencies.

[163] Straub et al., 36.

[164] City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report*.

[165] Straub et al., *Orlando Public Safety Response*, 36.

C. CONCLUSION

Communication is the cornerstone of successful interagency collaboration within ICS. It encompasses the timely exchange of information among incident commanders, responders, and relevant parties, ensuring that critical information is conveyed clearly and concisely while being received and understood by all involved. Effective communication goes beyond verbal or written communication; it involves using non-verbal cues to convey subtle understanding and foster social interaction. Effective communication within ICS is not only a desirable aspect but an indispensable factor in the efficiency, coordination, and overall effectiveness of emergency response efforts, making it a critical priority for all agencies involved.

Since 9/11, improving communication within ICS has been a persistent challenge, notably the issue of radio interoperability. Identified as a technological shortcoming, outdated radios were a specific concern. Government organizations, industry associations, and first-responder agencies have worked to improve communication capabilities among different entities over the years. One notable initiative has been to develop and adopt APCO Project 25 for standardized communication technology, enabling various radio systems for cross-compatibility between government organizations and civilian volunteers. Despite these technological strides, communication gaps endure, suggesting that the underlying issue may lie within social group communication.

Another significant challenge is the presence of cultural and organizational barriers among agencies. Each agency may have its own communication culture, language, and protocols, which can create confusion and hinder coordination during incidents. FEMA recommends using common terminology and plain language to promote effective communication among personnel from different disciplines, jurisdictions, organizations, and agencies.[166] Overcoming these barriers requires a concerted effort in interagency collaboration and mutual understanding across different cultures.

[166] Federal Emergency Management Agency, *National Incident Management System*.

Communication frequency alone does not guarantee effective coordination and collaborative efforts within ICS. As described, groups and individuals can elect not to communicate. Likewise, information must be passed on and then acted upon to be beneficial. The requirement for action following an information exchange highlights the need to receive, understand, and utilize information to enable productive and coordinated actions. However, handling information to coordinate actions presents a significant challenge within interagency frameworks like ICS, where institutional barriers and hierarchies often obstruct the flow of information.

Understanding the significance of communication is paramount because it serves as the foundation for synchronized endeavors, the economical use of resources, and overall effectiveness. Furthermore, effective communication is vital in maintaining situational awareness, ensuring all stakeholders involved in an incident are well-informed about the evolving situation, its scope, risks, and mitigation strategies. A shared understanding allows practitioners to adapt their response strategies and make informed decisions accordingly. Moreover, effective communication promotes transparency, fosters trust, and mitigates misunderstandings or conflicts among distinct groups, leading to a more cohesive, successful response effort.

The case studies of the Boston Marathon bombing, the Washington Navy Yard shooting, and the Pulse nightclub shooting provide valuable insights into the critical role of communication in interagency coordination during crises. The Boston Marathon bombing showcased effective and ineffective communication practices among numerous first responders from various agencies. It revealed the importance of coordination and communication at different stages of the response, offering valuable lessons on communication and interagency coordination. Similarly, the Navy Yard shooting highlighted the challenges posed by cultural and organizational barriers and the impact of communication deficiencies on response efforts. On the other hand, the Pulse nightclub shooting demonstrated the power of pre-existing relationships, shared purpose, and trust among agencies in facilitating communication and coordinated response efforts. These case studies underscore the importance of communication in interagency coordination during crises. They serve as a reminder that successful response efforts hinge on clear and

coordinated communication practices. By understanding the lessons learned from these incidents, agencies can recognize the significance of addressing communication challenges and fostering collaboration to ensure a more effective and efficient response in future crises.

As introduced in the prologue of this chapter, the inherent relationship between effective communication and trust must be recognized. The next chapter delves into trust's role in fostering communication and collaboration. Examining the trust paradigm clarifies how it affects the delicate dance between social groups' interactions.

IV. UNRAVELING THE TRUST PARADIGM

Building on the principles of communication, trust underpins the canvas of human interactions, influencing interpersonal connections and shaping the societal structures that individuals navigate. This chapter explores trust and distrust—their definitions, myriad forms, and social essence—as critical factors influencing communication and collaboration. Building on that idea, this study delves into trust's role in the HSE, emphasizing its necessity in operations and the varying outcomes tied to its presence or absence. This dialogue aims to deepen the reader's understanding of trust's multifaceted nature, indicating its relevance in diverse areas of human interaction.

A. WHAT IS TRUST?

Trust is like an invisible thread woven through the tapestry of human connections and interactions. It takes countless forms in diverse spheres of life, giving rise to many definitions, each tailored to a unique context. Whether it be at the personal, professional, or institutional level, trust adds to the complexity and richness of social relationships.

1. Defining Trust and Distrust

The myriad scholarly definitions of trust reveal its multidimensional nature. These definitions reflect the context and discipline of the scholars. For instance, Rosseau et al. define trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another."[167] This definition emphasizes the psychological aspect of trust, which depends on the individual's willingness to expose oneself to the possibility of being hurt or disappointed. Similarly, Giffin defines trust as an interpersonal phenomenon based on the belief of another's reliability.[168] She suggests that trust is fundamentally a social endeavor—a belief in the

[167] Denise M. Rousseau et al., "Not So Different after All: A Cross Discipline View of Trust," *Academy of Management Review* 23, no. 3 (July 1998): 395.

[168] Giffin, "Theory of Interpersonal Trust in the Communication Process," 104.

positive attributes and behaviors of others, primarily their reliability.[169] This definition adds a social dimension to the understanding of trust, emphasizing the role of interpersonal dynamics and the reliability of others. Reinke presents trust as "confidence in an organization's reliability and integrity."[170] This definition widens the scope of trust from an interpersonal level to an organizational level, signifying the trust that individuals place in an organization based on its perceived reliability and conduct. Gambetta offers yet another perspective, defining trust as "a particular level of the subjective probability with which an agent assesses that another agent or group will perform a particular action, both *before* he can monitor such action . . . *and* in a context in which it affects his own action" (original emphasis).[171] This probabilistic definition emphasizes the anticipation of beneficial behavior from others and reflects the inherent uncertainty and risk in trusting relationships. Klok complements these definitions by analyzing trust as a belief in an individual's or group's reliability, integrity, and capability.[172] This work stresses the importance of trust's cognitive and affective aspects, specifically confidence in the other party's competence, honesty, and goodwill.

Distrust is also a multidimensional construct that varies depending on the context and discipline. Scholars often define distrust not merely as the absence or lack of trust but as a distinct construct encapsulating a range of feelings, attitudes, and behaviors associated with suspicion, caution, and skepticism.[173] Lewicki, McAllister, and Bies define distrust as a confident negative expectation about another's conduct.[174] This definition emphasizes the idea that distrust arises from a person's firm belief that another individual or entity will

169 Giffin, 105.

170 Saundra J. Reinke, "Service before Self: Towards a Theory of Servant-Leadership," *Global Virtue Ethics Review* 5, no. 3 (July 2004): 38.

171 Diego Gambetta, "Can We Trust Trust?," in *Trust: Making and Breaking Cooperative Relations*, ed. Diego Gambetta (Oxford: University of Oxford, 2000), 217, http://www.sociology.ox.ac.uk/papers/gambetta213-237.pdf.

172 Klok, "We Need a Bomb Tech."

173 Roy J. Lewicki, Daniel J. McAllister, and Robert J. Bies, "Trust and Distrust: New Relationships and Realities," *Academy of Management Review* 23, no. 3 (July 1998): 438–58, https://doi.org/10.2307/259288; Klok, "We Need a Bomb Tech."

174 Lewicki, McAllister, and Bies, "Trust and Distrust," 439–44.

likely act in a way that is harmful or detrimental. Unlike low levels of trust, which could denote uncertainty or a lack of information, distrust implies conviction about the negative outcomes of someone's actions. Lewicki, McAllister, and Bies's definition also highlights the protective posture associated with distrust.[175] This notion of self-protection is a critical facet of distrust. Individuals or entities experiencing distrust often adopt defensive strategies to safeguard themselves from potential harm. Klok supplies another perspective on distrust: it is a state of doubt and skepticism concerning the reliability, integrity, and ability of an individual, group, or institution.[176] This view emphasizes the cognitive processes underlying distrust, recognizing it as not merely an absence of trust but a separate cognitive and emotional state that involves one's active skepticism and uncertainty of the intentions or capabilities of another party. It suggests that when individuals experience distrust, they question the reliability, integrity, or competence of others, which often hinders cooperation, collaboration, and communication.

These definitions collectively highlight the essence of distrust. It is not simply the negation or absence of trust but a distinct concept characterized by negative expectations, protective strategies, skepticism, and doubt. The implications of distrust are extensive, shaping individual behavior, social dynamics, organizational effectiveness, and interagency cooperation. Thus, understanding the concept of distrust, its roots, and its impacts is crucial in managing interpersonal, intergroup, and interorganizational relations.

The multifaceted nature of trust and distrust is manifest in various contexts and fields of study, showcasing its relevance and applicability. Different aspects of trust and distrust are accentuated in the literature, encompassing psychological states, social dynamics, organizational confidence, and subjective probabilities. Together, these perspectives form a comprehensive construct, which the following section examines.

[175] Lewicki, McAllister, and Bies, 439–44.

[176] Klok, "We Need a Bomb Tech," 53.

2. Forms of Trust

Trust is the foundation of all relationships and presents in various forms. Its nuances and implications for interpersonal dynamics and organizational functioning have bearing on the ICS requirements discussed previously in this thesis. This discussion explores general, interpersonal, organizational, cross-disciplinary, and cultural trust.

a. General Trust

As articulated by Curnin et al., general trust is the basic form of trust that manifests as a default expectation of goodwill and benevolence from others or societal institutions.[177] It forms the essential fabric of daily interactions, subtly yet significantly shaping social transactions and interplay. It underlies many basic assumptions that help society function smoothly. For example, when boarding a bus, passengers inherently trust the driver to be competent and responsible, or when visiting a restaurant, patrons trust the chef and staff to prepare and serve their food hygienically. Individuals rarely think about general trust, but it constantly facilitates their daily activities and interactions. Consequently, general trust forms the backbone of social contracts and is crucial in maintaining social order and cooperation.

b. Interpersonal Trust

As Giffin outlines, interpersonal trust embodies the faith that individuals place in the dependability of others, as informed by their actions and established integrity.[178] This variety of trust is the bedrock of human relationships and a critical part of most social interactions. It fosters a climate of cooperation, reciprocal understanding, and collective action, thus enabling coordination between individuals. For example, consider the relationship between life-long friends as one of interpersonal trust. Such trust springs not from formal contracts or agreements but from years of shared experiences, dependability, and mutual respect. Friends have learned to trust each other's judgment, to rely on each

[177] Steven Curnin et al., "Role Clarity, Swift Trust and Multi-Agency Coordination," *Journal of Contingencies and Crisis Management* 23, no. 1 (March 2015): 30, https://doi.org/10.1111/1468-5973.12072.

[178] Giffin, "Theory of Interpersonal Trust in the Communication Process," 104.

other in times of need, and to work together toward shared goals. This trust is not about believing in each other's competence but about having deep emotional bonds and mutual understanding, underscoring the multidimensional nature of interpersonal trust. In the same vein, such interpersonal trust is the cornerstone of effective teamwork and collaboration in ICS, particularly during emergency response situations, where trust in each other's competence and integrity can influence the mission's success.

c. Organizational Trust

Organizational trust, as defined by Cummings and Bromiley, is the level of faith and confidence that individuals hold in the integrity and dependability of their organization.[179] As a barometer of members' belief in the organization's conduct and policies, organizational trust fosters allegiance, dedication, and productivity. For example, members of crime syndicates or members of the armed forces often hold profound trust in their organizations, fostered by a code of honor, secrecy, and the strict enforcement of rules. Despite the inherent risks, their loyalty and commitment are evidence of this trust, illustrating its potent influence in even the most unconventional organizations. These examples underline the power of organizational trust as a pillar of operational success, creating an environment conducive to unwavering commitment and solidarity. In the context of ICS, fostering organizational trust is essential for collaboration and decision-making in emergencies, reinforcing the importance of integrity, dependability, and clear communication among all team members.

d. Cross-disciplinary Trust

As defined by Dirks and Ferrin, cross-disciplinary trust encompasses individuals' confidence in the abilities and expertise of professionals from different fields or disciplines.[180] This form of trust is essential for the successful resolution of intricate

[179] L. L. Cummings and Philip Bromiley, "The Organizational Trust Inventory (OTI): Development and Validation," in *Trust in Organizations: Frontiers of Theory and Research*, ed. Roderick Kramer and Tom Tyler (Thousand Oaks, CA: SAGE Publications, 1996), https://doi.org/10.4135/9781452243610.

[180] Kurt T. Dirks and Donald L. Ferrin, "The Role of Trust in Organizational Settings," *Organization Science* 12, no. 4 (August 2001): 451, https://doi.org/10.1287/orsc.12.4.450.10640.

problems through interdisciplinary cooperation. To clarify, consider a scenario involving city planning, where a diverse team comprising urban planners, environmental engineers, public safety officials, and community representatives work together. In this context, urban planners must trust environmental engineers to assess the sustainability and environmental impact of their designs. Meanwhile, public safety officials depend on planners and engineers to integrate safety features that support policing and emergency responses. Furthermore, community representatives rely on the expertise of all professionals to ensure that the project meets public needs while adhering to safety and environmental standards. Similarly, within ICS, cross-disciplinary trust facilitates collaboration and a coordinated response. Each role, from the incident commander to operations, planning, logistics, and finance, requires implicit trust in the expertise and competency of others, reinforcing the synergy of effective emergency management.

e. Cultural Trust

With cultural trust, Chandra, Mohammadnezhad, and Ward extend the standard definition of trust to cultural norms, societal expectations, and shared values.[181] The concept recognizes trust as an emotionally and cognitively influenced construct shaped by various cultural elements and social practices. For instance, in collaborating during a national disaster, FEMA administers response efforts, disaster recovery, and mitigation planning while the U.S. Coast Guard handles maritime security, safety, and stewardship. Although these two entities operate in different domains, a successful response requires seamless cooperation during a maritime disaster like an oil spill or a hurricane.[182] This cooperation relies on cultural trust, whereby each agency understands and trusts the other's unique cultural norms, procedures, and expertise. Each agency knows the other's responsibilities, protocols, and boundaries and trusts the other will execute its roles effectively, thereby ensuring a coordinated and effective disaster response.

---

[181] Swastika Chandra, Masoud Mohammadnezhad, and Paul Ward, "Trust and Communication in a Doctor–Patient Relationship: A Literature Review," *Journal of Healthcare Communications* 3, no. 3 (July 2018): 2, https://doi.org/10.4172/2472-1654.100146.

[182] Nielsen and Bodner, "Deepwater Horizon Leads to Programmatic Changes"; Executive Office of the President, *The Federal Response to Hurricane Katrina*.

B. THE SOCIAL NATURE OF TRUST

Trust forms the foundation of interpersonal and institutional connections and influences a wide range of contexts. It shapes relationship dynamics, guides interactions, and affects the outcomes of complex decision-making processes. An understanding of trust's multifaceted role and moderating effect can promote better social, organizational, and personal interactions. Trust facilitates open, effective communication and collaboration by reducing the perceived risk of sharing sensitive or critical information.[183] In high-trust environments, individuals are likely to express their thoughts and concerns openly, leading to better decision-making and problem-solving.[184] Conversely, low-trust environments hinder communication, as individuals may withhold information or experience paranoia, leading to misunderstandings and conflicts.[185] Lewicki, McAllister, and Bies illustrate alternative social realities based on the dimensions of trust and distrust (see Figure 3).[186]

[183] Giffin, "Theory of Interpersonal Trust in the Communication Process," 105.

[184] Lewicki, McAllister, and Bies, "Trust and Distrust," 446.

[185] Lewicki, McAllister, and Bies, 444.

[186] Lewicki, McAllister, and Bies.

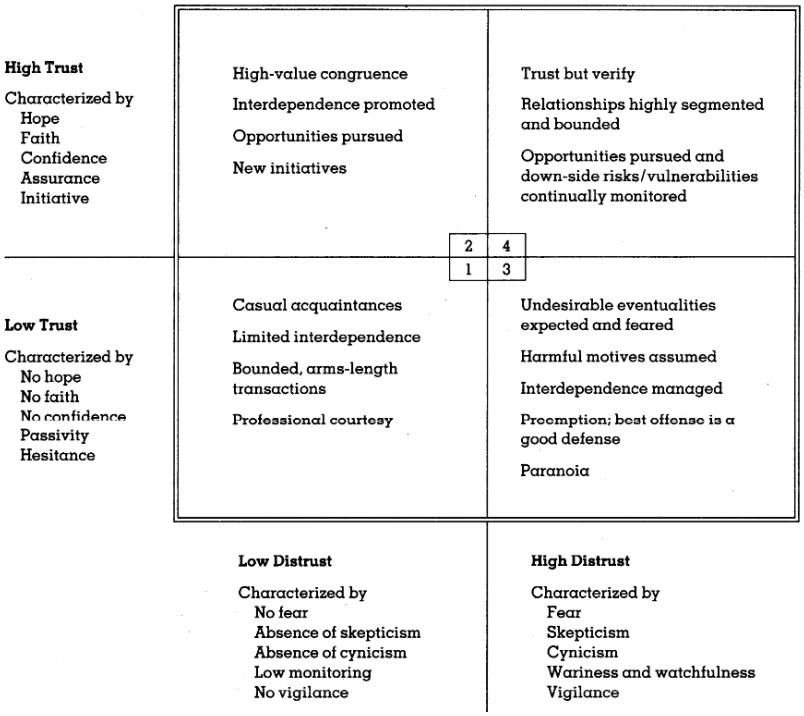

Figure 3. Integrating Trust and Distrust: Alternative Social Realities.[187]

Expanding on this concept, Curnin et al. explores the role of "developing and maintaining trust between culturally dissimilar organizations."[188] Highlighted ain their work is the fluid and situational concept of *swift trust*, developed rapidly in new groups under time constraints.[189]

1. The Moderating Effect of Trust

Trust is a nuanced, multidimensional phenomenon that unfolds in unique theories. Rousseau et al. delineate three types of trust: "deterrence-based trust, calculus-based trust, and relational trust."[190] Each underpins a different principle and influences attitudes, shapes perceptions, guides actions, and determines decisions in distinct ways.[191]

187 Source: Lewicki, McAllister, and Bies, 445.

188 Curnin et al., "Role Clarity, Swift Trust and Multi-Agency Coordination," 29–30.

189 Curnin et al.

190 Rousseau et al., "Not So Different after All."

191 Rousseau et al.

Deterrence-based trust operates from the anticipated punishment for betrayal, embedding trust in a framework of potential consequences. *Calculus-based trust* brings a rational angle, viewing trust through a cost–benefit analysis. *Relational trust* grows from repeated interactions and shared experiences, fostering a more profound emotional connection between parties. Furthermore, Gambetta introduces the concept of *probabilistic trust*, the likelihood of beneficial actions that an individual assigns to another.[192] It underlines the predictive nature of trust and its function as a moderating variable in decision-making, influencing judgments in contexts with high uncertainty.

a. Deterrence-Based Trust: A Balancing Act

Deterrence-based trust works on the principle that trust is kept by the impending threat of negative repercussions from its breach.[193] This form of trust sets up a deterrent, effectively moderating behavior by linking undesirable outcomes to potential acts of betrayal. This trust is fundamental in many social interactions and professional relationships. Its moderating effect can be seen in legal and business contexts. For instance, in business agreements, the possibility of legal consequences often serves as a significant deterrent against breaching trust. Parties involved in a contractual relationship are motivated to uphold their obligations because they fear facing severe penalties for any breach of trust, such as an economic loss, reputational damage, or criminal charges. In yet another example, in supplier–retailer relationships, the parties enter an agreement whereby the supplier promises to deliver goods to the retailer and the retailer commits to pay the supplier on a specified schedule. In this arrangement, the fear of potential repercussions—contract termination, lawsuits, or tarnished business reputations for not meeting the terms—moderates both parties' behavior. They are motivated to honor their commitments and keep a positive business relationship, fostering deterrence-based trust.

Such motivation underscores the vital role that potential punitive measures play in cultivating trustworthiness, ensuring cooperation, and moderating behavior in various contexts. In ICS, deterrence-based trust is equally crucial in supporting the integrity of

192 Gambetta, "Can We Trust Trust?," 217–19.

193 Rousseau et al., "Not So Different after All," 398.

response operations. Team members must trust that all others involved will fulfill their roles, underpinned by the knowledge that lapses in duty or protocol could result in disciplinary actions or adverse consequences, thus ensuring collaboration and a unified response to emergencies.

b. Calculus-Based Trust: A Cost–Benefit Analysis

Calculus-based trust involves rationally evaluating the advantages and risks of trusting others.[194] It plays a significant role in decision-making processes by moderating how people weigh losses against potential gains. This form of trust comes into play when an individual or organization must decide how much trust to place in another party based on the anticipated risks and benefits. Consider the context of scientific research collaborations between two independent laboratories. These entities must exchange sensitive data, unique methodologies, and novel findings to propel their shared research. However, such a partnership has risks, such as potential data misuse, intellectual property theft, or unequal contribution to the research endeavor. In such a scenario, calculus-based trust is essential in moderating decision-making. Each laboratory must evaluate the potential benefits of pooling resources, sharing expertise, and solving problems collectively against the risks thereof. The depth and quality of communication and the extent of shared resources hinge on this trust. Suppose one laboratory has established calculus-based trust in the other, perceiving that the collaboration's potential benefits outweigh the risks. In that case, it may communicate more openly, sharing detailed methodologies and preliminary results. Such trust moderates the degree of openness in communication and the extent of collaboration, directly influencing the joint research project's success.

The moderating role of trust in this context shows how calculus-based trust can enable communication and collaboration in a potentially risky environment. In ICS, calculus-based trust similarly guides collaboration and decision-making processes. Each participant, from the incident commander to the individual team member, must continually

[194] Rousseau et al., 399.

assess the benefits and potential risks of trusting others in their roles, thus facilitating or hindering a coordinated response to an emergency.

c. Relational Trust: The Bond beyond Transactions

Relational trust blossoms in repeated interactions and shared experiences between entities or individuals.[195] Acting as a powerful moderator, it deepens emotional bonds and nurtures mutual respect and understanding. To illustrate, a life-long friendship is based not on material exchanges or transactions but on shared experiences, mutual understanding, emotional support and the reciprocal exchange of trust over time. Trust plays a moderating role in such friendships, influencing relational dynamics. For example, a friend's advice might be taken more seriously due to the trust developed through shared experiences, mutual support, and integrity. The level of relational trust could also affect communication in the friendship, lending openness, honesty, and even constructive criticism, which might not be as well received in a less-trusting relationship. Furthermore, in times of disagreement or conflict, this relational trust can stabilize the friendship, fostering understanding, forgiveness, and reconciliation. It facilitates mutual respect and consideration, preventing minor disagreements from escalating and damaging the relationship. Therefore, a long-standing friendship is a compelling real-world example of how relational trust, derived from repeated interactions and shared experiences, can significantly moderate communication and promote collaboration.

Relational trust among ICS team members is equally critical, derived from recurrent interactions, shared experiences, and the collective aim of managing emergencies. It strengthens the bonds between the participants, encourages open and honest communication, and reinforces effective collaboration, ensuring a cohesive and efficient response.

[195] Rousseau et al., 399.

d. Probabilistic Trust: Predicting the Unpredictable

With probabilistic trust, as conceived by Gambetta, an individual assigns the likelihood of another party's acting in a mutually beneficial way.[196] This view emphasizes trust's predictive, expectation-based facet, a critical moderating influence in decision-making. This form of trust is put on display in a classic thought experiment, the "prisoner's dilemma."[197] In it, two individuals arrested and isolated face a critical decision: each can remain silent, cooperate, or betray the other to lighten his sentence. The consequences of each choice hinge on both the individual's decision and that of his prison mate. The probabilistic trust in the other thus moderates each prisoner's decision. If one prisoner holds a substantial degree of probabilistic trust that the other will remain silent, he is likely to cooperate, foreseeing a mutually beneficial outcome. Conversely, if one prisoner has a low level of probabilistic trust—anticipating that the other is likely to betray him—he may decide to betray the other first, prioritizing self-preservation in the face of perceived impending treachery. This scenario illustrates how probabilistic trust can function as a crucial factor in decision-making, demonstrating the impact it can have on the actions of individuals.

Probabilistic trust thus becomes a fundamental determinant of behavior within these contexts, moderating the outcomes based on the perceived reliability of the other party involved. Recognizing and understanding this facet of trust can play a vital role in navigating and managing various personal, professional, and institutional relationships. Drawing parallels to ICS, probabilistic trust is critical in fostering effective collaboration and decision-making. Participants must trust that their counterparts will make choices that benefit the team and the response effort. This expectation-based trust underscores the importance of reliability and mutual advantage in ensuring a coordinated emergency response.

In conclusion, trust in its various forms is a powerful moderator across multiple contexts, influencing behaviors, shaping interactions, and guiding decisions.

[196] Gambetta, "Can We Trust Trust?," 217–19.

[197] Gambetta, 226.

Understanding the moderating role of trust can help foster stronger relationships and promote effective collaboration. Each form of trust reflects a different dimension, highlighting its multifaceted nature. Recognizing the diverse forms of trust enhances the HSE's understanding of its crucial role in various social, organizational, and interpersonal contexts.

2. Trust within the HSE

Trust is pivotal in the HSE, forming the bedrock for collaboration and cooperation. According to scholarly research, cross-disciplinary trust is a fundamental concept, emphasizing the importance of confidence in individuals' or teams' diverse expertise.[198] This notion becomes particularly significant in multidisciplinary collaboration, where complex issues necessitate converging varied expertise. Moreover, trust enhances coordination and information sharing across different disciplines.[199] The same theories of trust—deterrence-based, calculus-based, and relational trust—are manifest in the HSE framework.[200] By exploring real-world examples, practitioners can better understand how trust is established and nurtured within the HSE, ultimately informing better decisions and collective action.

Deterrence-based trust is significant in the HSE. Information sharing, a core aspect of this field, necessitates trust among various stakeholders, including government agencies, private corporations, and individual personnel. In this setting, trust relies not on personal faith or mutual understanding but on rigorous regulations and protocols designed to safeguard national security. Most critically, this form of trust comes into play in handling classified or sensitive information. Edward Snowden and Jack Teixeira are just two examples of how those entrusted to protect such information violated deterrence-based

198 Dirks and Ferrin, "The Role of Trust in Organizational Settings," 450.

199 Klok, "We Need a Bomb Tech."

200 Debra Meyerson, Karl E. Weick, and Roderick M. Kramer, "Swift Trust and Temporary Groups," in *Trust in Organizations: Frontiers of Theory and Research*, ed. Roderick Kramer and Tom Tyler (Thousand Oaks: SAGE Publications, 1996), 166–95, https://doi.org/10.4135/9781452243610.

trust.[201] In this context, the system's design should have deterred such acts through the severe consequences for trust violations. Penalties for such breaches could include termination of employment, loss of security clearances, and legal ramifications, including imprisonment.

The potential for punitive consequences traditionally serves as a powerful deterrent and moderates the behavior of those handling sensitive information. Personnel are compelled to act responsibly, adhere strictly to established information management and sharing protocols, and ensure that the critical trust underlying these operations is upheld. Hence, deterrence-based trust plays a crucial role in the HSE, reinforcing appropriate behavior and fostering an environment of trustworthiness integral to cooperation in high-stakes settings.

Calculus-based trust plays an indispensable role in orchestrating ICS, especially during emergencies. The Boston Marathon bombing exemplifies the significance of this type of trust within the ICS context. During the bombing and its aftermath, numerous agencies, each with unique authorities and responsibilities, were called to action.[202] The situation's uncertainty necessitated the swift sharing of sensitive and critical information among the responding agencies to facilitate an effective and efficient response.[203] In this situation, calculus-based trust came into play. Leaders of these agencies were compelled to make rational assessments about the risks and benefits associated with sharing critical information. They had to evaluate potential gains, such as improved interagency coordination, enhanced situational awareness, and more effective crisis management. Simultaneously, they had to account for potential risks, such as information leakage or the misuse of sensitive data. For example, the high level of trust between law enforcement agencies was evident in the Boston Marathon bombing case when the city's mayor released

201 "United States Obtains Final Judgment and Permanent Injunction against Edward Snowden," Department of Justice, October 1, 2020, https://www.justice.gov/opa/pr/united-states-obtains-final-judgment-and-permanent-injunction-against-edward-snowden; Tim Mclaughlin and Sarah N. Lynch, "Airman Suspected of Leaking Secret U.S. Documents Hit with Federal Charges," Reuters, April 15, 2023, https://www.reuters.com/world/us/man-suspected-leaking-secret-us-documents-appear-court-2023-04-14/.

202 Massachusetts Emergency Management Agency, *Boston Marathon Bombings*.

203 Massachusetts Emergency Management Agency.

the suspect's photos.[204] Sharing crucial information about the suspects, motives, and connections in such a sensitive and high-profile investigation showed trust's essential role in interagency collaboration. Calculus-based trust helped to moderate the amount of information shared, with whom it was shared, and how it was used, directly affecting the collective response.

Thus, in the pressure-filled context of the Boston Marathon bombing response, calculus-based trust emerged as a crucial element, shaping interactions between agencies, guiding leaders' decision-making, and influencing the collective emergency response. The observed influence of calculus-based trust during the Boston Marathon bombing emphasizes its crucial role in enhancing efficient multi-agency collaboration in emergency management situations.

Relational trust blossoms in repeated interactions and shared experiences between entities or individuals, acting as a powerful moderator.[205] An illustration of relational trust in a personal context could be a long-standing friendship. The emotional connection developed over time, buoyed by shared experiences and numerous interactions, creates a platform for open communication, mutual support, and resilience in the face of disagreements or misunderstandings.[206] In an HSE context, the Pulse nightclub shooting in Orlando, Florida, provides a tangible example of relational trust. The incident required a comprehensive response from law enforcement and emergency medical services and saw multiple agencies collaborating in an extreme crisis.[207] Leaders of these agencies, including the OPD, the OCSO, and the FBI, had years of shared experience and had developed a deep level of relational trust.[208] This trust significantly moderated their interactions during the response. Their established relational trust facilitated open and efficient communication, coordinated decision-making, and mutual support during the

[204] Massachusetts Emergency Management Agency.

[205] Rousseau et al., "Not So Different after All."

[206] Rousseau et al., 399.

[207] City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report*.

[208] Straub et al., *Orlando Public Safety Response*.

response and investigation.[209] They had a shared understanding of each other's capabilities, resources, and protocols, which enabled a more synchronized response to the tragedy. This example underscores the role of relational trust in moderating interagency interactions and enhancing collaboration during critical incidents within the HSE.

Building on the work of Goodman and Goodman, Meyerson, Weick, and Kramer developed the concept of swift trust.[210] They explain that in time-pressured, high-stakes situations where participants have little opportunity for extended familiarization or relationship-building, *swift trust* signifies the first level of trust among group members, enabling immediate collaboration before long-term relational trust has time to develop.[211] This phenomenon between interdisciplinary agencies and those of similar emergency management fields has been studied.[212] The Washington Navy Yard shooting provides a compelling illustration of swift trust in action. In this event, numerous agencies, including the NDW Police, local law enforcement, the USPP, and the Metro Transit Police, worked together to manage the crisis.[213] These diverse entities, each with distinct operational protocols and scopes of expertise, rapidly forged a cohesive response. The situation's urgency did not permit the gradual development of relational trust through repeated interactions. Instead, these agencies relied on swift trust, a leap of faith, to cooperate immediately. Leaders and frontline personnel alike needed to trust that their counterparts in other agencies were competent and dependable and would act in a manner that helped the collective response. For instance, formulating ad hoc active-shooter teams from separate agencies required swift trust.[214] In this high-stakes, fast-paced environment, swift trust played a pivotal role in moderating interagency interactions, enabling effective collaboration, and ensuring the overall success of the joint crisis response. Therefore,

[209] Straub et al., 38.

[210] Meyerson, Weick, and Kramer, "Swift Trust and Temporary Groups."

[211] Meyerson, Weick, and Kramer, 167–68.

[212] Fahy, "Interagency Collaboration in New York City."

[213] Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*.

[214] Metropolitan Police Department of the District of Columbia.

understanding and harnessing swift trust can be invaluable for enhancing multi-agency cooperation within the HSE.

C. CONCLUSION

This exploration of trust—a fundamental and multifaceted part of human interaction—has revealed an intricate web of influences that extend across diverse settings. More than a simple abstraction, trust permeates daily interactions and the high-stakes homeland security arena. This realization draws attention to trust's dynamism, complexity, and tangible force in shaping social structures, relationships, and institutions worldwide.

Trust is the glue that holds relationships together and the catalyst for collaborative efforts, whether it be for professional teams or entire nations. It paves the way for meaningful exchanges, effective partnerships, and reliable systems. For the HSE, trust assumes a unique and critical role. Its challenges in this context underline the significance of fostering a culture of reliability and integrity to support a secure and functional society. The security apparatus's effectiveness, the public's confidence in its operations, and the collaboration across different security agencies all pivot on a central axis of trust.

The insights from this exploration supply a practical guide for nurturing healthier, more effective relationships across various domains. They prompt consideration of trust as an essential component of interactional design, a vital part of organizational culture, and a critical element in crisis management. The study of trust, therefore, serves as a potent tool for improving personal relationships, enhancing professional collaboration, and bolstering institutional performance such as in ICS. Trust is dynamic and evolves with shifting contexts and changing social dynamics. It reflects the nuances of social relationships, responds to societal changes, ebbs and flows with human interactions. The path of exploration now pivots to transformative concepts—social identity processes.

THIS PAGE INTENTIONALLY LEFT BLANK

V. THE ROLE OF SOCIAL IDENTITY IN EMERGENCY MANAGEMENT

The preceding chapters examined the complex tapestry of collaboration, communication, and trust woven into individuals' everyday lives and the HSE. Most important, the exploration found that trust is a social adhesive and the catalyst for meaningful exchanges and effective partnerships that bolster societal operations. This chapter introduces a novel approach in examining the role of trust in social identity processes, particularly how individuals' identification with social groups influences levels of trust. The insights generated from this approach deepen the theoretical understanding of trust and hold substantial practical implications for fostering cooperation, cohesion, and resource allocation in homeland security initiatives.

A. SOCIAL IDENTITY PROCESSES

Social identity theory (SIT) and self-categorization theory (SCT) help to explain the social context of individual and group behavior. The work of social psychologists Henri Tajfel and John Turner significantly shaped these theories.[215] Tajfel and Turner's SIT posits that individuals' social identity, informed by group memberships, profoundly influences their behavior, attitudes, and self-perception.[216] Building on this theory, Turner and his colleagues developed SCT, suggesting that individuals naturally categorize themselves into distinct social groups based on shared characteristics, fostering a collective identity.[217] These group categorizations shape individuals' behavior, thought processes, and emotional responses. Additionally, through the social identity analytical method (SIAM), researchers have identified visible attributes or behaviors that signify membership to a specific social group.[218] These theories and concepts form a comprehensive

[215] Michael A. Hogg, "A Social Identity Theory of Leadership," *Personality and Social Psychology Review* 5, no. 3 (2001): 186, https://doi.org/10.1207/S15327957PSPR0503_1.

[216] Hogg, 186.

[217] Hogg, 187.

[218] David W. Brannan and Anders Strindberg, "The Social Identity Analytical Method: Facilitating Social Science-Based Practitioner Analysis of Violent Substate Conflict," *Studies in Conflict & Terrorism* (September 2023): 1–19, https://doi.org/10.1080/1057610X.2023.2256538.

framework for understanding individual identity and group dynamics, offering valuable insights into social interactions, influence, and collective behavior.[219]

1. Social Identity Theory

Society hinges on the collective behavior of group structures, the interactions within and among these entities. Ashforth and Mael assert, "According to SIT, people tend to classify themselves and others into various social categories, such as organizational membership, religious affiliation, gender, and age cohort."[220] This dual classification organizes and defines the social environment and enables individuals to identify their place in it.[221] Consequently, such categorization fosters a sense of unity and belonging to a larger whole, underscoring the pivotal role groups play in shaping individuals' understanding of themselves and others.

Introduced by Henri Tajfel in 1972, the SIT framework explains how individuals perceive themselves in intergroup dynamics.[222] This system of social categorization delineates individuals' social standing within it, as group associations hold emotional and symbolic significance for individuals.[223] A group's identity and standing is the product of its relation to other groups.[224] These dynamics of identity formation underlie the interplay of individual and group perceptions that create a unique sense of self within society. Significantly influencing these dynamics is the individual's attempt to balance one's uniqueness with a sense of belonging.[225] As Hogg, Abrams, and Brewer note, "Where people feel overly distinctive they strive for greater inclusion, where people feel overly

---

219 Brannan, Darken, and Strindberg, *A Practitioner's Way Forward*, 67.

220 Ashforth and Mael, "Social Identity Theory and the Organization," 20.

221 Ashforth and Mael, 21.

222 Hogg, "A Social Identity Theory of Leadership," 186.

223 Ashforth and Mael, "Social Identity Theory and the Organization," 21; Henri Tajfel, "Social Identity and Intergroup Behaviour," *Social Science Information* 13, no. 2 (April 1974): 69, https://doi.org/10.1177/053901847401300204.

224 Michael A. Hogg, Dominic Abrams, and Marilynn B. Brewer, "Social Identity: The Role of Self in Group Processes and Intergroup Relations," *Group Processes & Intergroup Relations* 20, no. 5 (2017): 573, https://doi.org/10.1177/1368430217690909.

225 Hogg, Abrams, and Brewer, 573.

wrapped up in the group they strive for greater distinctiveness."[226] Conversely, they assert, "Groups are more distinctive and internally consistent entities that have clearer and less ambiguous prototypes—entitativity moderates the impact of uncertainty on group identification."[227] In essence, groups aim to protect and promote their unique identities, thus cultivating a positively distinct social identity for their members. This need for a positive social identity, heavily influenced by the fundamental human need for self-esteem, propels social identification and group behavior.[228] The interplay between social identity and group behaviors illustrates not only the profound influence of social structures on individual self-perception but also the need for greater understanding and consideration of these dynamics in shaping inclusive, diverse, and productive social environments.

SIT illuminates the range of phenomena and intergroup relations across various social domains. Tajfel explains social identity "as that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the emotional significance attached to that membership."[229] This perspective sheds light on human behavior across various groups, from organizational to personal realms. The intertwining of social and personal identity uncovers a wealth of social phenomena, demonstrating the relevance and versatility of SIT in deciphering complex social dynamics.

2. Self-Categorization Theory

SCT interprets the relationship between personal and social identities, significantly affecting group dynamics and social contexts. Devised by John Turner and his colleagues, SCT expands on SIT: "The cognitive dimension of social identity is specified by self-categorization theory . . . in terms of the causes and consequences of social categorization of self and others. . . . The process of social categorization perceptually segments the social

226 Hogg, Abrams, and Brewer, 573.

227 Hogg, Abrams, and Brewer, 574.

228 Tajfel, "Social Identity and Intergroup Behaviour"; John C. Turner et al., "Self and Collective: Cognition and Social Context," *Personality & Social Psychology Bulletin* 20, no. 5 (1994): 454–63, https://doi.org/10.1177/0146167294205002.

229 Tajfel, "Social Identity and Intergroup Behaviour," 69.

world into ingroups and outgroups that are cognitively represented as prototypes."[230] Turner et al. expound on this idea:

> Self-categorization theory makes a basic distinction between personal and social identity as different levels of self-categorization. It shows how the emergent properties of group processes can be explained in terms of a shift in self-perception from personal to social identity. It also elucidates how self-categorization is inherently variable, fluid, and context dependent, as self-categories are social comparative and are always relative to a frame of reference.[231]

The theory's fluidity between personal and social identities offers critical insights into the dynamics of trust within various security frameworks. The ability of SCT to unpack how group membership influences personal identity is a pivotal analytical tool for reevaluating interpersonal and intergroup relationships, thereby potentially improving strategies for cooperation and cohesion in homeland security operations. This conceptual link between SCT and HSE trust dynamics facilitates a deeper comprehension of the issues that better informs policymaking.

A fundamental tenet of SCT is the moderating effect of group membership on behavior. As described by Hogg, self-categorization "not only depersonalizes self-perception but goes further in actually transforming self-conception and assimilating all aspects of ones attitudes, feelings, and behaviors to the ingroup prototype; it changes what people think, feel and do."[232] Simply, with their group affiliation, individuals often conform to the group's norms, adopting similar beliefs, attitudes, and behaviors. For example, SWAT team members' self-categorization as high-risk operations specialists creates a collective identity that encourages a unified approach to critical incidents and values tactical precision as a group norm. Suffice it to say that like-minded individuals form groups. Hence, the implications of SCT extend beyond the individual, supplying a framework for understanding how shared identities cultivate collaboration and reduce potential intragroup conflicts.

---

[230] Hogg, "A Social Identity Theory of Leadership," 187.

[231] Turner et al., "Self and Collective," 454.

[232] Hogg, "A Social Identity Theory of Leadership," 187.

SCT explores the roots of group dynamics, particularly the formation of "us-versus-them" identities. As Turner proffers, "Self-categories are cognitive groupings of self and some class of stimuli as identical and different from some other class."[233] Building on this idea, Haslam, Reicher, and Reynolds present three core revelations:

> The first and most critical of these is that social identity is what allows group behaviour to occur at all. . . . A second core insight is that the self system reflects the operation of a context-sensitive categorization process, in which people see themselves as either sharing category membership with others (i.e., in terms of a shared social identity, "us"), or not . . . seeing those others either as "them" . . . or "you.". . . A third profound insight is that shared social identity is the basis for mutual social influence.[234]

This inherent need to classify oneself through group membership can lead to stark distinctions between us and them. Such distinctions often become the breeding ground for mutual biases and misunderstandings. When two groups with deeply entrenched identities come into contact, these categorizations invariably influence the resulting interactions. This social influence can create friction or conflict between groups, especially when the perceived "other" challenges or contradicts one's group values or beliefs.

SCT offers an explanation of power dynamics and human behavior within group contexts. As Turner asserts,

> There is also a kind of power which only emerges from human social relationships, from the capacity of people to organize themselves into groups, institutions and societies. People acting in concert, cooperating, coordinating and unifying their actions, developing emergent capacities as members of social systems, are able to have an impact on both the physical and social worlds through their interrelatedness that would be impossible if they were purely individual beings. Power from this perspective is the capacity to affect the world, including others, through influencing and controlling people to carry out one's will, to act on one's behalf, as an extension of oneself.[235]

---

233 Turner et al., "Self and Collective," 454.

234 S. Alexander Haslam, Stephen D. Reicher, and Katherine J. Reynolds, "Identity, Influence, and Change: Rediscovering John Turner's Vision for Social Psychology," *British Journal of Social Psychology* 51, no. 2 (June 2012): 206, https://doi.org/10.1111/j.2044-8309.2011.02091.x.

235 John C. Turner, "Explaining the Nature of Power: A Three-Process Theory," *European Journal of Social Psychology* 35, no. 1 (2005): 6, https://doi.org/10.1002/ejsp.244.

This interrelatedness allows individuals to extend their will and influence, amplifying their impact on the world, especially when more individuals or groups embody this collective intention. Relating to the present research, these power dynamics are pivotal in shaping collective action strategies and assessing the potential for internal and external influence, thereby directly impacting the efficacy and adaptability of various security measures. Haslam, Reicher, and Reynolds delve into the psychological underpinnings of this dynamic: "His [Turner's] core insight was that it is through our self-definitions as group members that social influence occurs and that social belief systems come to shape what we think, what we care about, and what we do."[236] Thus, understanding SCT is pivotal because it underscores the transformative power of collective action and illuminates how group affiliations shape identities and the broader trajectories of societal change and influence.

3. Social Identity Analytical Method

SIAM is an insightful tool that helps explain societal structures and group dynamics. As delineated by Brannan and Strindberg, these markers encompass the patron–client relationship, the honor–shame paradigm, the limited-good concept, and the challenge–response cycle.[237] These markers supply valuable frameworks for understanding how societies function—from power dynamics to resource allocation and responses to societal challenges. Therefore, using SIAM allows practitioners to analyze societal phenomena systematically, enhancing their ability to dissect complex group behaviors and societal systems.

The patron–client relationship explores power dynamics and dependency within social structures. As explained by Brannan and Strindberg, this relationship is an imbalance of power and resources whereby the patron, usually having more resources or power, offers protection, resources, or benefits to the client in return for loyalty or services.[238] As a real-world example of this dynamic, large corporations act as patrons, offering resources and

[236] Haslam, Reicher, and Reynolds, "Identity, Influence, and Change," 202.

[237] Brannan and Strindberg, "The Social Identity Analytical Method."

[238] Brannan and Strindberg, 12.

opportunities to smaller businesses in exchange for services or exclusive contracts. In the homeland security domain, the patron–client relationship is manifest in the interactions between federal agencies and local law enforcement units, whereby the former provides resources and intelligence in exchange for localized implementation and compliance. Therefore, by examining the patron–client relationship through the SIAM framework, practitioners can address societal power imbalances and promote greater equity and harmony.

Intergroup anxiety resonates in SIAM's honor–shame paradigm. Fear of embarrassment in social interactions, especially between distinct groups, often stems from a deep-seated fear of losing honor or status, which is crucial to an individual's or group's identity.[239] Referencing Stephan and Stephan's 1985 findings, Paolini et al. state, "Individuals often feel anxious when interacting with members from different social groups. . . . Individuals might fear embarrassment or frustration due to their own or others' incompetent or offensive behavior. They may fear rejection, discrimination, ridicule, or simply misunderstandings."[240] Nevertheless, Paolini et al. argue that "direct and indirect cross-group friendships may ameliorate group judgments by directly reducing this intergroup anxiety."[241] The friendships that Paolini et al. describe serve as bridges and foster mutual understanding and respect among divergent groups. While Paolini et al. describe an ethno-religious division, the concepts are equally true for other patronage lines. In analyzing intergroup interactions through the honor–shame paradigm, practitioners will find that friendships rooted in trust directly mitigate fear and anxiety, enhance positive group perceptions, and reduce prejudice and that social bonds promote harmony and collaboration.

The limited-good concept, initially framed as the material source of intergroup conflict, also serves as a critical lens for examining resource management in shaping

239 Brannan and Strindberg, 11.

240 Stefania Paolini et al., "Effects of Direct and Indirect Cross-group Friendships on Judgments of Catholics and Protestants in Northern Ireland: The Mediating Role of an Anxiety-Reduction Mechanism," *Personality and Social Psychology Bulletin* 30, no. 6 (2004): 773, https://doi.org/10.1177/0146167203262848.

241 Paolini et al., 773.

societal structures.[242] This dual focus bridges the gap between conflicting narratives and resource allocation. This alternative application builds on Turner's theory of group formation, suggesting that controlling scarce resources influences social dynamics and power hierarchies. According to Turner, "It is assumed that control of resources gives people 'power' to 'influence' to 'psychological group formation.' It is assumed that control of resources gives people power, defined as the capacity to influence people's attitudes, beliefs, and behavior, and that influence between people who depend upon each other leads to shared social norms and values."[243] Turner's theory, in conjunction with the limited-good principle, illuminates the profound impact of resource limitations on societal structures by showing how resource control can create power imbalances and influence group behavior. Such a framework is particularly relevant in the HSE, as federal funding is distributed disproportionately based on legislative whims. The imperative, therefore, lies in addressing these power imbalances through equitable resource distribution to foster harmony, cohesion, and effectiveness among homeland security organizations.

The challenge–response cycle is a potent tool for exploring and understanding the formation and reinforcement of self and group identity. The cycle is divided into three parts: 1) the *challenge* involves an action or statement from an individual or group; 2) the *perception* entails both the challenged individual's or group's interpretation and the broader public's view of that action; 3) the *response* captures the challenged individual's or group's reaction, which is swiftly followed by a public evaluation of that response.[244] For instance, in organized crime syndicates, an established member might challenge a prospect to prove one's loyalty and commitment through an illicit act. The newcomer's response proves one's commitment to the in-group identity as a syndicate member. Only the in-group evaluation is important to the potential in-group member. If the newcomer's actions align with the group, the group's perception transforms the individual from an outsider to a member. By understanding the cyclical process that strengthens group identity

[242] Brannan and Strindberg, "The Social Identity Analytical Method," 9.

[243] Turner, "Explaining the Nature of Power," 4.

[244] Brannan, Darken, and Strindberg, *A Practitioner's Way Forward*, 72.

and cohesion, practitioners can extract valuable lessons aimed at forging robust and resilient teams, emphasizing the broader implications of identity formation.

B. SOCIAL IDENTITY PROCESSES WITHIN THE HSE

In emergency management, understanding the social identity processes is a nuanced challenge and one crucial to maximizing effectiveness. These processes play a significant role in incident response, most notably within ICS, where the dynamics of group identity can either help (e.g., the Pulse nightclub shooting) or hinder (e.g., the Camp Fire) coordination. This section delves into the potential for engendering positive social change through the powerful, uniting force of solidarity in crises. Integrating the various ICS vignettes from earlier chapters and examining national programs, this section illustrates that social identity processes are not isolated theories but have practical implications for emergency management and the development of resilient and adaptive societies.

1. Emergency Management Response

SIT and SCT offer critical perspectives on individual and collective conduct within ICS. SIT proposes that individuals' identity stems from the groups they belong to, thus influencing their behavior.[245] SCT, an extension of SIT, suggests that individuals belonging to the same group and facing a common stimulus will likely align their responses.[246] It makes sense that individuals and groups should align their responses while engaged in disaster relief. Yet, Turner theorizes that power dynamics from social interactions can significantly affect the ability to influence and control others' actions.[247] These dynamics can be crucial in crisis management and are integral to the ICS structure.

As evidenced by failures during the Hurricane Katrina, Deepwater Horizon, and Camp Fire responses, the principles of SIT and SCT are essential for ICS functions during

[245] Tajfel, "Social Identity and Intergroup Behaviour."

[246] Hogg, "A Social Identity Theory of Leadership."

[247] Turner, "Explaining the Nature of Power," 6.

an incident response.[248] Research by Murshed, Uddin, and Hossain has recognized the work of Alexander Mintz on non-adaptive group behavior, which suggests that "when the reward for co-operative behavior [becomes] uncertain in a threatening situation, competitive behavior [occurs] with each person attempting to withdraw and act independently of the group."[249] These tendencies emphasize the crucial role of understanding and managing group behavior and communication during crises. Grasping the concepts of social identity and self-categorization goes beyond scholarly inquiry; it holds substantial practical value for managing disasters and protecting human lives and property.

In emergency management scenarios, the principles of SIT and SCT are paramount to the effective functioning of ICS. These theories explain how divergent safety cultures and various social identity markers—patron–client relationships, the limited good, and different patronage lines—can obstruct a coordinated disaster response. For example, in the Hurricane Katrina, Deepwater Horizon, and Camp Fire incidents, disparate safety cultures arose from distinct patronage lines among federal, state, and local agencies and private corporations.[250] The limited good further worsened divisions in these incidents, leading to a competitive rather than collaborative approach to crisis management. These theories also spotlight how power dynamics embedded within these social identity frameworks can significantly disrupt the alignment of group responses and hierarchical control within the ICS structure. Recognizing the influence that patronage lines and the limited good have on divergent safety cultures is critical in refining ICS, improving interagency cooperation, and safeguarding human lives and property during disasters.

[248] Executive Office of the President, *The Federal Response to Hurricane Katrina*; U.S. Coast Guard, *On Scene Coordinator Report*; Constant Associates, *The Camp Fire*.

[249] Shahriar Tanvir Hasan Murshed, Shahadat Uddin, and Liaquat Hossain, "Understanding Communication Network Cohesiveness during Organizational Crisis: Effects of Clique and Transitivity," in *Proceedings of the 31st International Conference on Information Systems* (Association for Information Systems, 2010), 13, https://core.ac.uk/download/pdf/301349552.pdf.

[250] Executive Office of the President, *The Federal Response to Hurricane Katrina*; U.S. Coast Guard, *On Scene Coordinator Report*; Constant Associates, *The Camp Fire*.

2. Social Change

Social change refers to shifts in societal structures, norms, and attitudes that influence group dynamics and social roles. Subašić, Reynolds, and Turner labored to answer the following question: "When will members of a low status, disadvantaged social group perceive themselves as such and act collectively in order to challenge and change a system of intergroup relations that disadvantages them?"[251] The answer lies in a phenomenon called "collective protest."[252] In the 1970s, Canada, grappling with socioeconomic and political tensions among its Anglophone, Francophone, and Indigenous communities, launched the national service program, Katimavik, to bridge these cultural divides and counteract homegrown terrorist activities.[253] The initiative united Canadians from diverse cultural and socioeconomic backgrounds, promoting understanding and unity.[254] Through shared experiences and community service, participants transcended their perceived disadvantaged social group, creating a "more unified and multiculturally tolerant youth population."[255] Social change, driven by well-orchestrated government initiatives, can play a pivotal role in resolving societal tensions and creating harmonious groups.

The potential for unity amid diversity in any nation lies in social programs that unite disparate groups. The Katimavik program's success has underscored this sentiment, drawing Canadians from varied backgrounds into a unified purpose. Through this initiative, Canada has seen less cultural tension, enjoyed a more inclusive societal fabric, and promoted mutual understanding among its citizens.[256] Moreover, the program's achievements serve as a blueprint for other nations grappling with internal divisions.

---

[251] Emina Subašić, Katherine J. Reynolds, and John C. Turner, "The Political Solidarity Model of Social Change: Dynamics of Self-Categorization in Intergroup Power Relations," *Personality and Social Psychology Review* 12, no. 4 (2008): 332, https://doi.org/10.1177/1088868308323223.

[252] Subašić, Reynolds, and Turner, 332.

[253] Hannah E. Lam, "Cultivating Cohesion: Bringing Immigrants and Citizens Together through National Service" (master's thesis, Naval Postgraduate School, 2022), 67, https://hdl.handle.net/10945/71014.

[254] Lam, 67.

[255] Lam, 71.

[256] Lam.

Through shared experiences and conscious efforts toward social change, nations can find common ground, fostering cohesion and setting a solid foundation for enduring harmony and mutual understanding among distinct groups.

3. Solidarity

Scholars recognize solidarity is transformative in crises by uniting diverse individuals under common goals and interests.[257] Subašić, Reynolds, and Turner note, "Individual differences do not simply disappear or become completely irrelevant once people start to define themselves in terms of their membership of a particular social (psychological) group. They do, however, come to be understood in the context of higher order (i.e., group) goals and interests."[258] Applying this principle to crisis response situations, such as the aftermaths of the Boston Marathon bombing, the Washington Navy Yard shooting, and the Pulse nightclub incident, yields compelling narratives of unity despite diversity, or the lack thereof.[259] Moreover, during times of crisis, the principle of solidarity can prove pivotal on a national scale. Hence, embracing this principle not only bonds individuals amid challenging circumstances but also amplifies society's collective strength and resilience, emphasizing its indispensable role in fostering unity and driving concerted efforts for lasting recovery and harmony.

In the aftermath of incidents like the Boston Marathon bombing, the Washington Navy Yard shooting, and the Pulse nightclub incident, government first responders actively highlighted the role of solidarity and how a group's commitment or detachment can influence the response.[260] Each of these events brought to light the power of unity among diverse entities. For instance, during the Boston Marathon bombing, despite their varying

257 Subašić, Reynolds, and Turner, "The Political Solidarity Model of Social Change."

258 Subašić, Reynolds, and Turner, 337.

259 Massachusetts Emergency Management Agency, *Boston Marathon Bombings*; Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*; City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report*.

260 Massachusetts Emergency Management Agency, *Boston Marathon Bombings*; Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*; City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report*.

roles and backgrounds, responders came together in a potent display of solidarity.[261] This dynamic was highlighted in the after-action report: "Situational awareness and information sharing among state and city officials and agencies on the day of the incident was strong."[262] Conversely, the absence of unity among diverse law enforcement agencies when searching for Aaron Alexis in the Washington Navy Yard shooting detracted from solidarity:

> Some personnel from other law enforcement agencies did not appear to take instructions or commands from the MPD forward operating commander, who was coordinating the entry of the active shooter teams. . . . It was reported that at least one law enforcement officer indicated that he and his colleagues were federal officers and the Navy Yard was a federal facility; therefore, they did not need "permission" to respond to the incident and enter the scene.[263]

This quote exemplifies how differing jurisdictional perspectives, or discord, can hinder effective collaboration and coordination, which are critical in crises for fostering solidarity and achieving optimal outcomes. On the other hand, the Pulse nightclub shooting saw a notable display of solidarity among leadership from multiple agencies, bolstered by pre-existing relationships between the involved organizations. Poignantly represented by Straub et al., "No agency or leader claimed the spotlight or special recognition for their role. Leaders agreed that the overarching mission was to save lives, and they rallied around doing so—providing whatever resources they could to accomplish the goal."[264] The effectiveness of crisis response, as seen in these incidents, directly hinges on solidarity among involved entities. These examples underscore the importance of fostering unity, collaboration, and trust among diverse groups to achieve the common mission of ensuring public safety.

The events in Israel on October 7, 2023, serve as a compelling model for understanding how solidarity can manifest nationally, particularly through military

---

[261] Massachusetts Emergency Management Agency, *Boston Marathon Bombings*.

[262] Massachusetts Emergency Management Agency, 85.

[263] Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*, 30.

[264] Straub et al., *Orlando Public Safety Response*, 43.

conscription. Despite existing political divisions and ongoing protests, the government, civilians, and former military members came together during a critical moment, illustrating the remarkable power of national unity. Shira Rubin's article exemplifies this transformation in describing how former Israeli combat soldiers actively involved in anti-government demonstrations rallied to support Israel's efforts in Gaza.[265] Similarly, the Brothers and Sisters in Arms protest group, comprising active reservists and military veterans, has played a pivotal role in this nationwide demonstration of solidarity as it draws on its extensive networks to carriage soldiers from various parts of the country to their bases when traditional transportation options are limited.[266] These collective efforts underscore how individuals, driven by shared values and aspirations, can unite in times of crisis, transcending political divisions. Rubin quotes Eldad Miller as saying, "After this is over, there will be investigations into the people who called us 'traitors.' That's not interesting for us. . . . What we know, now, is that our country needs us."[267] The unity forged amid this crisis is a poignant reminder that, even in the face of political disagreements, a profound sense of national identity can transcend divisions and unite individuals in service to their country. This exemplifies how solidarity through conscription into a common cause can wield significant power. Just as these individuals put aside their differences to safeguard their nation, unity, shared purpose, and collaboration can be leveraged in homeland security here at home.

C. CONCLUSION

As tools for understanding group dynamics and individual behavior, SIT and SCT are foundational to homeland security operations. Their frameworks can elevate the practitioner's understanding of trust, cooperation, and effectiveness within the ICS context and the power dynamics that can influence crisis management. Moving from theory to practice, Canada's Katimavik program exemplifies how well-designed government

265 Shira Rubin, "Politicians Called Them 'Traitors.' Now They're Manning Israel's Home Front," *Japan News*, October 15, 2023, https://japannews.yomiuri.co.jp/news-services/washingtonpost/20231015-143220/.

266 Rubin.

267 Rubin.

initiatives can intentionally trigger social change, thereby resolving societal tensions and fostering unity. As shown in the case of Israeli solidarity, national unity can also be a resource in emergencies. Integrating SIT, SCT, and their accompanying analytical tools into homeland security and emergency management paradigms is an academic exercise and a vital operational necessity. This integration will equip practitioners and scholars with a more nuanced understanding of the social dynamics, enrich policy formulation and implementation strategies, catalyze the transformation of theoretical knowledge into actionable insights, and fortify societies with resilience and adaptability in the face of evolving challenges.

The final chapter of this thesis synthesizes the elements of social identity processes from prior sections and formulates actionable conclusions and practical recommendations to enhance communication and foster trust in emergency management contexts. It concludes with avenues for future academic research that contributes to ongoing advancements in this essential field.

THIS PAGE INTENTIONALLY LEFT BLANK

VI. FROM THEORY TO PRACTICAL RECOMMENDATIONS

The preceding chapter examined social identity processes, explaining their profound effects on individual and collective behaviors. These complicated processes sculpt beliefs, influence actions, and modulate the dynamics of trust both within and between groups. These mechanisms shed light on the complex connections within societal constructs, recognizing their foundational role in shaping collective beliefs, actions, and societal trust. In this concluding chapter, insights from earlier chapters are blended into conclusions and pragmatic directives. The aim is to enhance communication paradigms and strengthen trust in cross-disciplinary emergency management responses on a national scale. Additionally, this chapter serves as a launchpad for future academic pursuits, promoting continued evolution and refinement in this domain.

A. INSIGHTS AND DISCOVERIES

This thesis presented a detailed exploration of the dynamics of interagency collaboration within the HSE, beginning with an in-depth analysis of the historical limitations of the ICS. The pivotal role of communication and the complex nature of trust were underscored, explaining their considerable influence on effective collaboration. Furthermore, the study delved into the intricacies of how social identity processes manifested and modulated aspects of communication, trust, and social interactions. This thorough examination uncovered the nuanced interplay among these elements, highlighting their combined effect in shaping power dynamics and enhancing the efficacy of interagency collaboration within the HSE.

B. THE POWER OF UNITY

Harnessing social identity processes taps into an innate human desire: the quest for positive self-image and purpose. At the core of this behavior is the inclination for individuals to align themselves with groups that mirror their values and resonate with their aspirations. When individuals find themselves in the company of like-minded peers, it

reinforces their beliefs, boosts their self-esteem, and supplies a sense of belonging.[268] In the intricate weave of societal dynamics, these associations become critical touchpoints, grounding people in their convictions and offering them validation. The Israeli Defense Forces (IDF) and Swedish Armed Forces (SAF) represent these principles through their conscription models. By fostering shared identities and objectives in the IDF and SAF, their respective nations fortify their defenses and shape cohesive societies, thus enhancing trust and communications between individuals and groups.

1. Consider Conscription

The power of conscription in building national unity is familiar, and its effectiveness in enhancing communication and trust among diverse groups is particularly noteworthy. When executed strategically, conscription can tap into shared values and aspirations, fostering a common purpose and building trust across various individuals. The ability to reshape societal perceptions, unite disparate backgrounds, and kindle a spirit of collaborative endeavor is vividly illustrated in the approaches adopted by the IDF and Sweden's reactivation of its military conscription.[269] These examples underscore the potential of well-crafted conscription systems in molding national identity, fostering trust, and enhancing communication.

a. The Israeli Defense Forces

The IDF model serves as a testament to the transformative power of conscription in forging national solidarity.[270] Leveraging the social identity process, this approach reinforces the nation's social framework and amplifies foundational societal traits, including collaboration, communication, and trust. Girsh echoes this sentiment: "The idea

---

[268] Wilson, "The Out Crowd"; Michael W. Sedam, "Team Communication: The Social Identity Approach to Collaboration" (master's thesis, Naval Postgraduate School, 2015), https://hdl.handle.net/10945/47871; Hogg, Abrams, and Brewer, "Social Identity"; Tajfel, "Social Identity and Intergroup Behaviour."

[269] Yaron Girsh, "Negotiating the Uniform: Youth Attitudes towards Military Service in Israel," *YOUNG* 27, no. 3 (June 2019): 304–20, https://doi.org/10.1177/1103308818787647; Sanna Strand, "The Reactivation and Reimagination of Military Conscription in Sweden," *Armed Forces & Society* (2023): 1–21, https://doi.org/10.1177/0095327X231164740.

[270] Girsh, "Negotiating the Uniform."

that contributing to the collective through military service was founded on the republican discourse . . . , according to which the practice of appropriate citizenship means participating in the imagined community, motivated by identification with its goals."[271] In a telling comparison, Girsh points out the distinguished standing of the IDF among young people in Israel: "Compared to other institutions such as the police, parliament and the courts, the IDF enjoys the highest degree of trust on the part of Israeli youths."[272] Delving deeper into individual motivations, Girsh adds, "On the individual level, joining the army is still seen as a rite of passage to maturation and as an opportunity for self-realization that combines independence and responsibility. In this sense, military service is not only a way of contributing to the collective but also as an arena for the reinforcement of individualism."[273] Thus, integrating shared goals and identity via national service is a powerful catalyst, binding diverse populations into a singular, cohesive unit. This model stands as a compelling argument for nations, underscoring that through structured conscription, societies can harness the collective strength of their diverse citizens, fostering unity, trust, and a shared purpose.

b. Swedish Armed Forces

Sweden's reactivation of military conscription in 2017 was not just a policy change; it represented a strategic use of social identity processes within a comprehensive domestic security plan. Driven by national security imperatives, the revival of conscription became an imperative, as "the security situation in Sweden's vicinity [had] worsened and because the SAF's staffing needs [could not] . . . be safeguarded by voluntary recruitment alone."[274] Out of necessity, Sweden cleverly harnessed the human desire for positive self-identification to promote this policy change among the population. The government portrayed conscription as an opportunity for personal growth: "When you conduct your training, you will grow as a person and gain memories for life. You will develop your

[271] Girsh, 305.

[272] Girsh, 308.

[273] Girsh, 308.

[274] Strand, "Military Conscription in Sweden," 8.

collaborative and leadership skills and your ability to function during stressful conditions. You will boost your confidence, your fitness and your CV."[275] Furthermore, the Swedish government reframed conscription from an obligation into an enriching experience, labeling it a "voluntary duty" and encouraging citizens to "volunteer to do one's duty."[276] This transformation underscores how nations have utilized social identity mechanisms to cultivate positive perceptions of individuals and groups, enhance national defense capabilities, and foster unity among citizens.

2. Enhance Communication and Trust within the HSE

Trust, as an intangible yet foundational element, plays a pivotal role in the effectiveness and cohesion of any group operation. Within the HSE, the complexities of interagency operations magnify the need for trust. As academic research reveals, the HSE demands improved intercommunications and group interactions.[277] This challenge often boils down to the essence of trust, especially when dealing with the nuances of group cohesion, collaboration, and the inherent difficulties of navigating in-group/out-group dynamics. The transformative and unifying effects of conscription, as shown by the IDF and SAF models, present a potential solution. These models offer the youth martial training and impart life skills and a sense of pride, turning conscription into a rite of passage that strengthens societal bonds.[278] This shared experience, transcending diverse backgrounds, promotes unparalleled national unity and camaraderie.[279] When contextualized in the American milieu, the potential benefits of conscription extend far beyond military service. By integrating this system into various civil sectors—from emergency services to education and healthcare—the United States can foster an environment where shared

[275] Strand, 13.

[276] Strand, 10.

[277] Massachusetts Emergency Management Agency, *Boston Marathon Bombings*; Metropolitan Police Department of the District of Columbia, *Washington Navy Yard*; City of Orlando Office of Emergency Management, *Pulse Tragedy After Action Report*; Straub et al., *Orlando Public Safety Response*; Executive Office of the President, *The Federal Response to Hurricane Katrina*; Constant Associates, *The Camp Fire*.

[278] Girsh, "Negotiating the Uniform."

[279] Strand, "Military Conscription in Sweden."

experiences enhance trust, communication, and solidarity nationally. Such an approach, borrowing from the principles that have unified nations like Israel and Sweden, could pave the way for a rejuvenated and cohesive society where trust is the linchpin. This, in turn, would bolster operational efficacy and collaboration during interagency homeland security operations akin to ICS, bringing about a more united front in the face of challenges.

The IDF and SAF conscription models serve as military necessities and influential sociocultural mechanisms. For young conscripts, these mandatory service periods are often perceived as transformative experiences, framing their transition into adulthood with a sense of pride and a positive self-image.[280] In both nations, conscription is seen as a rite of passage, signaling the maturation and growth of their youth.[281] Beyond the apparent military training, conscription equips individuals with desirable life skills and traits that often find relevance in civilian professions and societal engagements. More importantly, this universal experience of conscription weaves a thread of shared memories and stories, acting as a powerful unifying element. Regardless of their backgrounds, citizens can relate to one another, grounded in these shared experiences, fostering a profound sense of national unity and camaraderie.

As demonstrated by the IDF and SAF, the concept of conscription can be reimagined in an American context to encapsulate a broader spectrum of services beyond just the military. Imagine a system where American youth, upon reaching a certain age, are conscripted into a diverse range of civil services, from law enforcement, firefighting, and emergency medical services to roles as educators, social workers, doctors, and lawyers. This program would provide them with skills and experiences and instill a sense of purpose, responsibility, and societal contribution. Such a system would parallel the shared experiences and unifying aspects seen in countries with military conscription. With a diverse array of professions included, a broader segment of the population would be involved, ensuring a more comprehensive shared experience. This could boost intra-national communication, trust, and understanding. A nationwide initiative could foster a

[280] Girsh, "Negotiating the Uniform"; Strand, "Military Conscription in Sweden."

[281] Girsh, "Negotiating the Uniform"; Strand, "Military Conscription in Sweden."

sustained sense of solidarity, whereby citizens from disparate backgrounds come together, unified by shared purpose and duty, creating a more cohesive and collaborative society akin to the camaraderie seen in the IDF and SAF.

Considering the proposed nationwide conscription initiative, integrating a wide spectrum of civil services, it is pertinent to comment on its potential impact on homeland security and emergency management communications. The shared experiences and skills fostered by this system could significantly enhance interagency collaboration and communication within the homeland security framework. By engaging a diverse array of professions, the initiative would cultivate a broad-based understanding and appreciation of various roles, leading to improved coordination and trust among different sectors. This approach, mirroring the camaraderie seen in the IDF and SAF, could thus play a pivotal role in strengthening the overall effectiveness of homeland security and emergency management operations.

C. FUTURE SCHOLARLY RESEARCH

This section examines the idea of implementing a national policy for civil service conscription while promising to foster national unity and a shared purpose. Such a policy undeniably presents a complex web of challenges that demand careful consideration. Critical questions arise concerning the ideal duration of service, the proper age range for conscripts, and the financial implications of such a massive undertaking. Furthermore, measuring such a policy's short- and long-term effectiveness adds another layer of complexity to the debate. Not to be overlooked is the legal scrutiny this proposal would invite, especially concerning Article 13 of the Constitution, which prohibits involuntary servitude.[282] Likewise, work in the social identity process of recategorization should be explored. This theory can supply valuable insights into how civil service conscription may influence or shape individuals' identities, contributing to a deeper understanding of its societal implications. Addressing these concerns necessitates thorough scholarly research,

[282] "13th Amendment to the U.S. Constitution: Abolition of Slavery (1865)," National Archives, accessed November 3, 2023, https://www.archives.gov/milestone-documents/13th-amendment.

ensuring that any such policy aligns with the nation's constitutional, fiscal, and social frameworks.

1. Duration of Service

The question of how long everyone should serve in a civil conscription program is pivotal. The length of service must strike a balance between ensuring that individuals gain meaningful experience and managing such a large-scale program. A short-term program might not offer conscripts comprehensive experience or sufficient skill development. At the same time, an extended period might deter potential participants and impact other life pursuits like education or career establishment. Rigorous research would be needed to gauge the optimal duration that ensures the program's effectiveness without impinging on the individual freedoms and opportunities of the conscripts.

2. Age Range for Conscripts

Deciding the ideal age range for conscription introduces several variables. While younger conscripts might be more malleable and receptive, older individuals might bring more maturity and life experience to their roles. The goal would be to identify an age range that is practical for the tasks required and beneficial for the individual's personal and professional growth. Thorough studies analyzing the success of similar programs internationally might shed light on the most effective age range for such an endeavor.

3. Financial Implications

Launching a national civil service conscription undoubtedly comes with significant financial considerations. The costs would be substantial, from infrastructure, training, and resources to stipends or salaries for conscripts. It is essential to conduct a comprehensive fiscal analysis to estimate the potential economic impacts, both immediately and in the long term, and to weigh them against the expected benefits. This would also entail considering potential funding sources and the broader economic implications for the labor market and public sector.

4. Measuring Effectiveness

One of the most challenging aspects of a civil service conscription program would be evaluating its success. Metrics for short-term effectiveness include skill acquisition, participant satisfaction, and immediate societal impact. Long-term measures encompass the program's influence on national unity, the professional trajectory of participants, and the sustained societal benefits. Establishing clear benchmarks and consistent evaluation methodologies will ensure the program's viability and impact.

5. Legal Considerations—Article 13 of the Constitution

Implementing a national conscription policy would inevitably invite legal examination, particularly concerning Article 13 of the Constitution. This article centers on individual rights and involuntary servitude—"Neither slavery nor involuntary servitude . . . shall exist within the United States, or any place subject to their jurisdiction"—thus posing significant challenges to mandatory service.[283] Engaging constitutional experts and legal scholars in the dialogue ensures that any proposed policy respects and aligns with the nation's foundational legal principles. Addressing potential legal barriers early in policy development will be crucial to its implementation. While a civil service conscription policy offers national unity and development potential, navigating its complexities requires thoughtful, multifaceted research. Only by thoroughly addressing these challenges can the government ensure that such a policy aligns harmoniously with the nation's constitutional, fiscal, and societal frameworks.

6. Recategorization

The recategorization approach is relevant to the HSE, which often causes various groups to interact. Further study of the recategorization approach becomes relative in this context, as recategorization aims to mitigate biases and conflicts among separate groups.[284] For example, promoting shared goals through contact can prove highly effective

[283] National Archives.

[284] Catherine E. Seta, John J. Seta, and Jenifer Culver, "Recategorization as a Method for Promoting Intergroup Cooperation: Group Status Matters," *Social Cognition* 18, no. 4 (Winter 2000): 355, https://doi.org/10.1521/soco.2000.18.4.354.

in homeland security, where cooperation among these distinct groups is paramount. Consequently, conducting additional research on this social process becomes essential for informing group interaction dynamics in the HSE.

D. CONCLUSION

This thesis lays the foundation for conscription as a potential source of unity, trust, and communication among the broader populace. At the heart of this investigative journey stands the social identity processes that might be leveraged to address the deficiencies in communication and trust routinely highlighted in ICS after-action reports. Drawing inspiration from the established principles of conscription models and the insights of SIT, this thesis has envisioned a future in which interagency operations demonstrate the bonds of camaraderie and mutual understanding. Fostering communication and trust leads to timely and effective responses, so improving collaborative systems is a matter of life and safety. In such an environment, the vision is not only about operational efficiency but about sculpting a nation that stands resilient and unwavering in the face of challenges, thus ensuring the safety and security of its people—and a more perfect union.

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

Ashforth, Blake E., and Fred Mael. "Social Identity Theory and the Organization." *Academy of Management Review* 14, no. 1 (1989): 20–39. https://doi.org/10.2307/258189.

Brannan, David, Kristin Darken, and Anders Strindberg. *A Practitioner's Way Forward: Terrorism Analysis*. Salinas, CA: Agile Press, 2014.

Brannan, David W., and Anders Strindberg. "The Social Identity Analytical Method: Facilitating Social Science-Based Practitioner Analysis of Violent Substate Conflict." *Studies in Conflict & Terrorism* (September 2023): 1–19. https://doi.org/10.1080/1057610X.2023.2256538.

Bushman, Edward. "Policy Options to Address Crucial Communication Gaps in the Incident Command System." Master's thesis, Naval Postgraduate School, 2012. https://hdl.handle.net/10945/17331.

Chandra, Swastika, Masoud Mohammadnezhad, and Paul Ward. "Trust and Communication in a Doctor–Patient Relationship: A Literature Review." *Journal of Healthcare Communications* 3, no. 3 (July 2018): 1–6. https://doi.org/10.4172/2472-1654.100146.

Cherry, Colin. "On Human Communication." *Physics Today* 10, no. 5 (1957): 1–35. https://doi.org/10.1063/1.3060370.

City of Orlando Office of Emergency Management. *Pulse Tragedy After Action Report*. Orlando: City of Orlando Office of Emergency Management, 2018. https://www.fla-pac.org/wp-content/uploads/2019/07/Pulse-Tragedy-EM-AAR-Final.pdf.

Connecticut State Police. *After Action Report: Newtown Shooting Incident, December 14, 2012*. Middletown: Connecticut State Police, 2018. https://portal.ct.gov/-/media/DESPP/DSP/CSPAARpdf.pdf.

Constant Associates. *After Action Report: The Camp Fire*. Torrance, CA: Constant Associates, 2019.

Cummings, L. L., and Philip Bromiley. "The Organizational Trust Inventory (OTI): Development and Validation." In *Trust in Organizations: Frontiers of Theory and Research*, edited by Roderick Kramer and Tom Tyler, 302–330. Thousand Oaks, CA: SAGE Publications, 1996. https://doi.org/10.4135/9781452243610.

Curnin, Steven, Christine Owen, Douglas Paton, Cain Trist, and David Parsons. "Role Clarity, Swift Trust and Multi-Agency Coordination." *Journal of Contingencies and Crisis Management* 23, no. 1 (March 2015): 29–35. https://doi.org/10.1111/1468-5973.12072.

Department of Homeland Security, Office of Emergency Communications. *Emergency Communications Case Study: Emergency Communications during the Response to the Boston Marathon Bombing*. Washington, DC: Department of Homeland Security, 2013.

Department of Justice. "United States Obtains Final Judgment and Permanent Injunction against Edward Snowden." October 1, 2020. https://www.justice.gov/opa/pr/united-states-obtains-final-judgment-and-permanent-injunction-against-edward-snowden.

Dirks, Kurt T., and Donald L. Ferrin. "The Role of Trust in Organizational Settings." *Organization Science* 12, no. 4 (August 2001): 450–67. https://doi.org/10.1287/orsc.12.4.450.10640.

District of Columbia Homeland Security and Emergency Management Agency. *The District of Columbia Communications Interoperability Summit: A 6 Year Review of the Washington Navy Yard Shooting*. Washington, DC: Homeland Security and Emergency Management Agency, 2019. https://www.domesticpreparedness.com/wp-content/uploads/2023/08/navy_yard_book_9_12_19_final.pdf.

Dorn, R. Ranger. "Introduction to the National Incident Management System (NIMS) and the Incident Command System (ICS)—What It Means to You." *Sheriff* 57, no. 3 (June 2005): 58, 60–65.

Edgeley, Catrin M. "Exploring the Social Legacy of Frequent Wildfires: Organizational Responses for Community Recovery following the 2018 Camp Fire." *International Journal of Disaster Risk Reduction* 70 (December 2021): 1–13. https://doi.org/10.1016/j.ijdrr.2021.102772.

Executive Office of the President. *The Federal Response to Hurricane Katrina Lessons Learned*. Washington, DC: Executive Office of the President, 2006.

Fahy, Michael J. "Understanding Swift Trust to Improve Interagency Collaboration in New York City." Master's thesis, Naval Postgraduate School, 2012. https://hdl.handle.net/10945/17362.

Federal Emergency Management Agency. *National Incident Management System*. 3rd ed. Washington, DC: Federal Emergency Management Agency, 2017. https://www.fema.gov/emergency-managers/nims.

Flamm, David S. "A New Model for Understanding Incident Management." Master's thesis, Naval Postgraduate School, 2016. https://hdl.handle.net/10945/51695.

Gambetta, Diego. "Can We Trust Trust?" In *Trust: Making and Breaking Cooperative Relations*, edited by Diego Gambetta, 213–37. Oxford: University of Oxford, 2000. http://www.sociology.ox.ac.uk/papers/ gambetta213-237.pdf.

Giffin, Kim. "The Contribution of Studies of Source Credibility to a Theory of Interpersonal Trust in the Communication Process." *Psychological Bulletin* 68, no. 2 (1967): 104–20. https://doi.org/10.1037/h0024833.

Girsh, Yaron. "Negotiating the Uniform: Youth Attitudes towards Military Service in Israel." *YOUNG* 27, no. 3 (June 2019): 304–20. https://doi.org/10.1177/1103308818787647.

Glass, S., V. Muthukkumarasamy, and M. Portmann. S. "A Software-Defined Radio Receiver for APCO Project 25 Signals." In *Proceedings of the 2009 International Conference on Wireless Communications and Mobile Computing: Connecting the World Wirelessly*, 67–72. New York: ACM, 2009. https://doi.org/10.1145/1582379.1582395.

Goodrum, Sarah, William Woodward, and Andrew J. Thompson. "Sharing Information to Promote a Culture of Safety." *National Association of Secondary School Principals* 101, no. 3 (2017): 215–40.

Greenaway, Katharine H., Ruth G. Wright, Joanne Willingham, Katherine J. Reynolds, and S. Alexander Haslam. "Shared Identity Is Key to Effective Communication." *Personality and Social Psychology Bulletin* 41, no. 2 (November 2014): 171–82. https://doi.org/10.1177/0146167214559709.

Harrington, Michael J. "New York City's First Responders: Enhancing Collaboration between NYPD and FDNY." Master's thesis, Naval Postgraduate School, 2014. https://hdl.handle.net/10945/44573.

Haslam, S. Alexander, Stephen D. Reicher, and Katherine J. Reynolds. "Identity, Influence, and Change: Rediscovering John Turner's Vision for Social Psychology." *British Journal of Social Psychology* 51, no. 2 (June 2012): 201–18. https://doi.org/10.1111/j.2044-8309.2011.02091.x.

Hocevar, Susan Page, Erik Jansen, and Gail Fann Thomas. *Building Collaborative Capacity for Homeland Security*. NPS-GSBPP-04-008. Monterey, CA: Naval Postgraduate School, 2004. https://hdl.handle.net/10945/571.

———. "Inter-organizational Collaboration: Addressing the Challenge." *Homeland Security Affairs* 7, no. 2 (2011): 1–8.

Hogg, Michael A. "A Social Identity Theory of Leadership." *Personality and Social Psychology Review* 5, no. 3 (2001): 184–200. https://doi.org/10.1207/S15327957PSPR0503_1.

Hogg, Michael A., Dominic Abrams, and Marilynn B. Brewer. "Social Identity: The Role of Self in Group Processes and Intergroup Relations." *Group Processes & Intergroup Relations* 20, no. 5 (2017): 570–81. https://doi.org/10.1177/1368430217690909.

Hutchins, Susan G., and Ronald P. Timmons. "Radio Interoperability: Addressing the Real Reason We Don't Communicate Well during Emergencies." In *Proceedings of the 11th International Command and Control Research and Technology Symposium*, 1–14. International Command and Control Institute, 2006. http://hdl.handle.net/10945/37902.

Klok, Richard L., Jr. "'We Need a Bomb Tech . . . ' Integrating the Bomb Squad with SWAT." Master's thesis, Naval Postgraduate School, 2020. https://hdl.handle.net/10945/66667.

Lam, Hannah E. "Cultivating Cohesion: Bringing Immigrants and Citizens Together through National Service." Master's thesis, Naval Postgraduate School, 2022. https://hdl.handle.net/10945/71014.

Lewicki, Roy J., Daniel J. McAllister, and Robert J. Bies. "Trust and Distrust: New Relationships and Realities." *Academy of Management Review* 23, no. 3 (July 1998): 438–58. https://doi.org/10.2307/259288.

Massachusetts Emergency Management Agency. *After Action Report for the Response to the 2013 Boston Marathon Bombings*. Boston: Massachusetts Emergency Management Agency, 2014. https://archives.lib.state.ma.us/handle/2452/264302.

McKinsey & Company. *Increasing FDNY's Preparedness*. New York: Fire Department of the City of New York, 2002. https://www.nyc.gov/assets/fdny/downloads/pdf/about/mckinsey_report.pdf.

Mclaughlin, Tim, and Sarah N. Lynch. "Airman Suspected of Leaking Secret U.S. Documents Hit with Federal Charges." Reuters, April 15, 2023. https://www.reuters.com/world/us/man-suspected-leaking-secret-us-documents-appear-court-2023-04-14/.

Melmer, Patrick, Margo Carlin, Christine A. Castater, Deepika Koganti, Stuart D. Hurst, Brett M. Tracy, April A. Grant et al. "Mass Casualty Shootings and Emergency Preparedness: A Multidisciplinary Approach for an Unpredictable Event." *Journal of Multidisciplinary Healthcare* 12 (December 2019): 1013–21. https://doi.org/10.2147/JMDH.S219021.

Metropolitan Police Department of the District of Columbia. *After Action Report: Washington Navy Yard, September 16, 2013*. Washington, DC: Metropolitan Police Department, 2014. https://mpdc.dc.gov/publication/mpd-navy-yard-after-action-report.

Meyerson, Debra, Karl E. Weick, and Roderick M. Kramer. "Swift Trust and Temporary Groups." In *Trust in Organizations: Frontiers of Theory and Research*, edited by Roderick Kramer and Tom Tyler, 166–95. Thousand Oaks: SAGE Publications, 1996. https://doi.org/10.4135/9781452243610.

Mishra, Aneil K. "Organizational Responses to Crisis: The Centrality of Trust." In *Trust in Organizations: Frontiers of Theory and Research*, edited by Roderick Kramer and Tom Tyler, 261–87. Thousand Oaks, CA: SAGE Publications, 1996. https://doi.org/10.4135/9781452243610.

Morris, John C., Elizabeth D. Morris, and Dale M. Jones. "Reaching for the Philosopher's Stone: Contingent Coordination and the Military's Response to Hurricane Katrina." *Public Administration Review* 67, no. 1 (December 2007): 94–106. https://doi.org/10.1111/j.1540-6210.2007.00818.x.

Murshed, Shahriar Tanvir Hasan, Shahadat Uddin, and Liaquat Hossain. "Understanding Communication Network Cohesiveness during Organizational Crisis: Effects of Clique and Transitivity." In *Proceedings of the 31st International Conference on Information Systems*. Association for Information Systems, 2010. https://core.ac.uk/download/pdf/301349552.pdf.

National Archives. "13th Amendment to the U.S. Constitution: Abolition of Slavery (1865)." Accessed November 3, 2023. https://www.archives.gov/milestone-documents/13th-amendment.

National Commission on Terrorist Attacks upon the United States. *The 9/11 Commission Report*. New York: W. W. Norton, 2004.

Nielsen, Eric, and Christopher Bodner. "Deepwater Horizon Leads to Programmatic Changes in Marine Environmental Response." *Coast Guard Journal of Safety & Security at Sea, Proceedings of the Marine Safety & Security Council* 77, no. 3 (Winter 2020): 1–130.

Paolini, Stefania, Miles Hewstone, Ed Cairns, and Alberto Voci. "Effects of Direct and Indirect Cross-group Friendships on Judgments of Catholics and Protestants in Northern Ireland: The Mediating Role of an Anxiety-Reduction Mechanism." *Personality and Social Psychology Bulletin* 30, no. 6 (2004): 770–86. https://doi.org/10.1177/0146167203262848.

Podoletz, Lena. "We Have to Talk about Emotional AI and Crime." *AI & Society* 38, no. 3 (June 2023): 1067–82. https://doi.org/10.1007/s00146-022-01435-w.

Reinke, Saundra J. "Service before Self: Towards a Theory of Servant-Leadership." *Global Virtue Ethics Review* 5, no. 3 (July 2004): 30–57.

Rousseau, Denise M., Sim B. Sitkin, Ronald S. Burt, and Colin Camerier. "Not So Different after All: A Cross Discipline View of Trust." *Academy of Management Review* 23, no. 3 (July 1998): 393–404.

Rubin, Shira. "Politicians Called Them 'Traitors.' Now They're Manning Israel's Home Front." *Japan News*, October 15, 2023. https://japannews.yomiuri.co.jp/news-services/washingtonpost/20231015-143220/.

Sedam, Michael W. "Team Communication: The Social Identity Approach to Collaboration." Master's thesis, Naval Postgraduate School, 2015. https://hdl.handle.net/10945/47871.

Seta, Catherine E., John J. Seta, and Jenifer Culver. "Recategorization as a Method for Promoting Intergroup Cooperation: Group Status Matters." *Social Cognition* 18, no. 4 (Winter 2000): 354–76. https://doi.org/10.1521/soco.2000.18.4.354.

Strand, Sanna. "The Reactivation and Reimagination of Military Conscription in Sweden." *Armed Forces & Society* (2023): 1–21. https://doi.org/10.1177/0095327X231164740.

Straub, Frank, Jack Cambria, Jane Castor, Ben Gorban, Brett Meade, David Waltemeyer, and Jennifer Zeunik. *Rescue, Response, and Resilience: A Critical Incident Review of the Orlando Public Safety Response to the Attack on the Pulse Nightclub*. Washington, DC: Office of Community Oriented Policing Services, 2017.

Subašić, Emina, Katherine J. Reynolds, and John C. Turner. "The Political Solidarity Model of Social Change: Dynamics of Self-Categorization in Intergroup Power Relations." *Personality and Social Psychology Review* 12, no. 4 (2008): 330–52. https://doi.org/10.1177/1088868308323223.

Tajfel, Henri. "Social Identity and Intergroup Behaviour." *Social Science Information* 13, no. 2 (April 1974): 65–93. https://doi.org/10.1177/053901847401300204.

Teeter, Andrew C. "On a Clear Day, You Can See ICS: The Dying Art of Incident Command and the Normal Accident of NIMS—A Policy Analysis." Master's thesis, Naval Postgraduate School, 2013. https://hdl.handle.net/10945/32908.

Templeton, Douglas R. "Assessing the Utility of Work Team Theory in a Unified Command Environment at Catastrophic Incidents." Master's thesis, Naval Postgraduate School, 2005. https://hdl.handle.net/10945/2265.

Turner, John C. "Explaining the Nature of Power: A Three-Process Theory." *European Journal of Social Psychology* 35, no. 1 (2005): 1–22. https://doi.org/10.1002/ejsp.244.

Turner, John C., Penelope J. Oakes, S. Alexander Haslam, and Craig McGarty. "Self and Collective: Cognition and Social Context." *Personality & Social Psychology Bulletin* 20, no. 5 (1994): 454–63. https://doi.org/10.1177/0146167294205002.

U.S. Coast Guard. *On Scene Coordinator Report: Deepwater Horizon Oil Spill*. Washington, DC: U.S. Coast Guard, 2011. https://repository.library.noaa.gov/view/noaa/283.

Wilson, Adam E.-H. "The Out Crowd: How Workplace Cliques Communicate Exclusion." Master's thesis, Gonzaga University, 2016. ProQuest.

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
   Fort Belvoir, Virginia

2. Dudley Knox Library
   Naval Postgraduate School
   Monterey, California