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Information processing under stress: A study of Mumbai Police first responders

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Rajarshi Chakraborty [a], Manish Agrawal [b], H. Raghav Rao [a,*]

[a] University at Buffalo, USA
[b] University of South Florida, USA
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Abstract   The unprecedented terrorist attacks in India on November 26, 2008 tested conventional anti-terrorism response mechanisms of the law enforcement agencies. In this study we explore the information processing that governed the first response from the Mumbai Police department towards these attacks. This study was conducted through interviews and survey with officers from two distinct groups within the department. One of these groups played a strategic role (Control Room) while the other played a tactical role (Zone 1) in shaping the early response that was critical in subduing the attacks. Our findings have been used to propose recommendations for law enforcement.
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Introduction

In the aftermath of the deadly terrorist attacks in India on the 26th of November, 2008 (26/11), there has been much discussion on the readiness of the Mumbai Police and Indian Marine Commandos as the line of defense against such attacks (O'Rourke, 2010; Staniland, 2009). However, little discussion or post-facto analysis has been devoted towards understanding the motivation and decision-making process of first responders in the Mumbai Police department. That understanding will not only give a better perspective and appreciation of the tasks conducted in the tense situation (Cannon-Bowers & Salas, 1998; Keinan, 1987) but also help identify any potential gap that needs to be filled regarding the police response to terrorist attacks (Keelty, 2008; Pickering, McCulloch, & Wright-Neville, 2008, pp. 91—111) in general.

An officer in the police department, whether in the control room or on the field, makes numerous decisions, especially during a critical situation like the 26/11 terrorist attacks. Each of these decisions is driven by a motivation, which is usually derived from knowledge about the situation at hand (Worden, 1989), personal experience (Hertwig, 2004) and perception about the situation (Sitkin & Weingart, 1995). In our study, this is collectively referred to as *Information Processing* — a concept that captures various factors including knowledge, experience, personality, and perception that lead to a motivation which in turn leads to a decision taken. In this paper we present our findings about various aspects of information processing

from surveys and interviews that were granted to us by some of the officers of the Mumbai Police department. Through our findings we aim to explore the information processing by the Mumbai Police department during the early moments of the 26/11 attacks. The findings thus pertain to the decisions taken by the officers, both in field and in the control room, during the early hours of the attacks.

Background

Mumbai is the most populous and one of the busiest cities in India. Mumbai (formerly known as Bombay) is located on the west coast of India and is the capital of the State of Maharashtra. It is the financial capital of India and serves as its main commercial hub. On 26th November 2008 the city of Mumbai faced an unprecedented terrorist attack that caused a wanton destruction of human life and property.

A group of terrorists attacked several locations in Mumbai, primarily in Zone 1, including hotels like the Taj Mahal Palace hotel and the Trident (formerly known as Oberoi) hotel. Zone 1 is one of the 12 administrative zones in Mumbai for its Police Department. The terrorists also targetted several popular public locations including the city's main commuter railway station, the Chatrapati Shivaji railway station, formerly known as Victoria Terminus, Leopold Café, Cama hospital and Nariman House. The attack was brought under control two days later on the 28th of November 2008 by the Indian security forces. This attack was well planned and coordinated and it involved the usage of digital technology for communication (Oh, Agrawal, & Rao, 2011; Shankar, Agrawal, & Rao, 2011). This paper investigates the information processing among the first responders to this attack from the Mumbai Police department.

Prior literature

To understand information processing by the Mumbai Police department at various stages of their mitigation effort against the 26/11 attackers (Kronstadt, 2008), we referred to studies conducted in the past within other disaster scenarios such as floods (Grothmann & Reusswig, 2006). These studies have statistically established that *protection motivation* (Rogers, 1983) is an important factor in determining the kind of damage preventing actions that a private citizen would take when his/her property is at risk of being damaged by floods. As the phrase implies, protection motivation is the motivation for protecting somebody or something valuable that drives actions and decisions which help in mitigating a disaster situation (Rippetoe & Rogers, 1987) as opposed to escalating or aggravating it. This motivation, for an individual, comes not only from the value that he/she attaches to the object of intended protection but also the threat and risk assessment given an abnormal situation like a flood or a terrorist attack. These studies also helped understand what kind of knowledge, experience and perception of fear and reality affects the motivation for protecting valuable property and belongings when there is a looming threat of flood. In this paper we use these studies as a theoretical basis for grounding our

research among the police, a hitherto uncovered area. Each officer of the Mumbai Police department involved in countering the attacks, both on the ground as well as behind the phone lines and computer screens in the control room, had his/her own protection motivation that drove each decision he/she took.

Prior literature on emergency situations has brought to light different forms of threat assessment as well as the mechanisms for coping with the situation result in protection-oriented motives. An individual's decisions during an abnormal situation is highly influenced by the assessment about the possibility of a threat as well as the potential damage to things that the individual values, which together can be collectively referred to as a *perceived threat* (Cohen, 1979). How an individual expects a threat to actually materialise, and how harmful the potential threat is to anything that the individual values, are both largely influenced by the extent of fear in the mind of the individual. Further, an individual would quite likely make a decision in a disaster situation based on his/her estimation of how effective that decision would be and how much the individual himself/herself would be effective in executing the decision. Also, a decision maker would evaluate or attach a cost to the decision to be made. Fig. 1 identifies the various antecedent concepts that guide effectiveness in the context of emergency situation response based on prior literature. This research model is adapted from the Protection Motivation Theory (PMT) (Rippetoe & Rogers, 1987) and its applications in natural disasters (Grothmann & Reusswig, 2006).

The assessment of threats during emergency situations represents the beginning of a fear appeal (Williams, 2012) that ultimately drives a person to take actions to mitigate the fear of his/her well-being. In the context of emergency situations, it is not only the fear but also the amount of self-efficacy a person has in making and executing the decisions that affect behaviour. If the emergency situation is terrorism-related, it can be argued that the fear of terrorism itself (Kowoll, 2012) should play a role in the actions of the law enforcement officers. This area of research has only recently been studied through a new theoretical framework called Terror Management Theory (TMT) (Shehryar & Hunt, 2005). According to this theory, it is not just the level of fear about getting injured or losing valuable assets, but the hint of near-certain death that drives police and government response to terror attacks
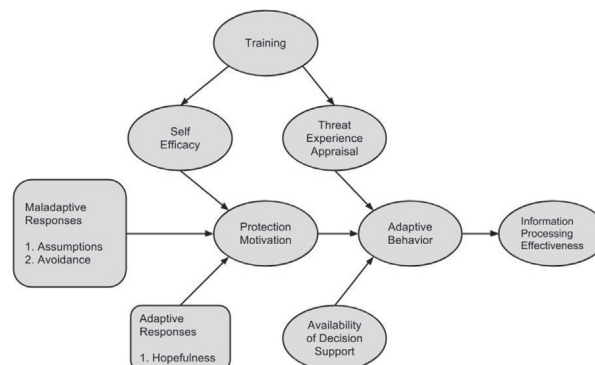

Figure 1   Research model.