2 Decision Making on the Day

"What matters most is not generating the best possible plan but achieving the best possible result "

United States Marine Corp, quoted in Riley, 2014, p. 40

Overview

Chapter 2 concerns issues on the day of the event and within the crowd. In a complex situation effective decisions must be made before small risks become disasters. In this chapter we explore the numerous techniques common to the four sections. These are heuristics, situational awareness, appropriate response, proportionality, local optimization, triggers and resilience. The domains may have different names for these and they will describe them from their perspective in the proceeding chapters.

Introduction

A common thread to each of the following chapters is the need to make decisions during the event or while there is a crowd. At some time on the event site, the person responsible may not have the luxury to weigh up all the options, assess the probabilities and take time to make a decision. The time needed for this can increase both the likelihood and the consequence of the risk. Not making a decision and lack of action may make the situation far worse. The techniques listed in this section will assist the decision maker at that time. They have a long history in similar environments such as policing, military and emergencies. These are complex, where time is important, information is limited and there is a potential for chaos. The following concepts are found throughout the four domains. They will be described slightly differently, although their aim is to minimise risk using the tools available. The reader should be

able to list them when studying the specialist literature and website and recognise them when working in the field.

Heuristics

"Heuristics are simplified rules of thumb that make things simple and easy to implement. But their main advantage is that the user knows that they are not perfect, just expedient, and is therefore less fooled by their powers. " Nassim Taleb, *Antifragile*.

Heuristics is the knowledge and skill that is learned on the job. It tends to be localised and difficult to teach outside its area of immediate application. Tips and tricks is another term for it. Often it is so specialised that it cannot be described without actually performing the action. Most manual tasks are very involved and complex and yet a person with experience can do them with ease. Often they can't describe the techniques they are using.

A personalised checklist is an example of a heuristic. The new term for this everyday practicality is life-hacks. They tend to be left out of any theory and yet can be the difference between success and failure. The complex situation is an example of an environment where the heuristic fix of a minor problem can prevent disasters. One of the reason heuristics is not recognised as important is that if a problem does not happen, then it is a assumed it was never going to happen. The proverb "for want of a nail the war was lost" is an example. If the war was won, no one would say it was because the horse was shod correctly.

The overwhelming risks, often called *operational risks*, are found on the day of the event. Although they may be traced back to the project planning, the on-the-day staff will have to deal with them. To illustrate this point consider a simple electric cable or extension cord. The work health and safety standard is to tape the cord down or to cover it. But there are many times when this is not done for whatever reason. In some workplaces, such as an open space with one or two people, the temporary cable may not cause an accident. However in a crowd or on a stage at an event, a cable on the floor is a major risk. It is almost certain that someone will trip over it. That person will probably fall on other people and a small risk is quickly amplified. Only experience at events will pick up these types of details.

An interesting corollary to this is that by taping down or covering the cords, people do not look for cords. There is an argument that by taking these types of actions we are increasing the effect of the risk. We are transferring the risk into a long tail risk, i.e. from a minor common risk to a rare but disastrous risk. John Adams in his fascinating work on *Risk* (1995) explores his concept of the risk thermostat.

A further example is the lighting at events and crowds. Coloured lights can make certain colours disappear. An object such as a blue box on a stage under blue light will not be seen clearly and can become a hazard. The stage is often a place of a lot of activity, particularly during the setup time. Coloured lights can be dangerous at that time. These tips and tricks are picked up on the job.

One of the problems with describing heuristics is that they often seem obvious after they are explained. But in the time-constrained complex environment of an event, it may not be so obvious. These tips and tricks are highly valuable in these situations because there is often a choice of actions and the consequences can be dire.

Situational awareness

Situational awareness is found in the chapters on health and security. During an emergency some people will become too highly focussed. People report tunnel vision where everything outside of the one spot, the source of the trouble, just disappears. The same effect happens with people's perception of sound. When people are intensely focussed on one task they will not hear other things. This can be a major problem when there is an incident or emergency. Steven A. Adelman description of the 10-80-10 situation during emergencies is an example.

The 10-80-10 Rule

The "10-80-10 Rule" is the name of an observation, based on survivor accounts dating as far back as the 1911 Triangle Shirtwaist Factory fire and as recent as the latest active shooter incident, about the way people tend to behave in emergencies. Visually, it's just an ordinary bell-shaped curve.

On the left side of the curve, 10% of people will perceive an emergency quickly and accurately and then respond decisively to save themselves and others. Psychologically, these leaders suffer from less confirmation bias or normalcy bias than their peers, often because they have had some analogous life experience or training in the military or public safety. There are few of these people in most crowds, but they tend to self-identify as leaders.

This is important because the next group, roughly 80% of most crowds, are followers. They are relatively slow to correctly identify the threat – survivors of active shooter incidents, for example, routinely think they hear fireworks or another innocuous daily sound rather than gunfire – and then slow to take action. A common response during the September 11, 2001 attacks on the World Trade towers was 'milling', in which people knew the situation called for some action, but they focused on gathering even unimportant personal effects or shutting down their computers rather than running to safety. The presence of a leader exerting authority has been demonstrated to break followers out of their perfectly normal state of incomprehension and help herd them away from danger.

Finally, the last portion of the curve, the remaining 10%, are the few that tend to be shown on TV running and screaming. Historical accounts show unequivocally that panic is actually an infrequent occurrence even in the worst emergencies, for reasons that are thoroughly explained in the literature of disaster psychology.

It is important for event organizers and crowd managers to understand this 10-80-10 division in emergency responses. They can use this information to plan accordingly by identifying potential leaders by their experience, training, and temperament, and then providing those potential leaders with the tools and authority to help guide everyone else to safety.

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Situation awareness is just the opposite. It is to be aware of all the things that surround the actions and to be able to find solutions and to take command if need be. Situational awareness is more than being aware during emergencies. The event staff should be aware at all times