

LEARNING IN THE HEAT OF THE MOMENT

AN INTERVIEW WITH SABRINA COHEN-HATTON

In the heat of the moment, how do we make decisions, individually and collectively? And how can we improve decision-making at work? **Steven Shorrock** interviews firefighter and psychologist **Sabrina Cohen-Hatton**, about her work on decision-making in the emergency services, her journey from firefighter to Chief Fire Officer, and her extraordinary life.

Bring to your mind, for a moment, your mental image of a firefighter. The chances are, your image is similar to the image of most other people. Sabrina Cohen-Hatton would not fall within the stereotypical range of firefighters for most people. For a start, she is a woman in a male-dominated profession. In the UK, 6.4 per cent of firefighters are women, though this figure is increasing with firefighter trainee recruits. The figure is almost identical to that for pilots; Air Line Pilots Association International female pilots make up 6.6% of the pilot population.

This was an obvious place to start when I interviewed Sabrina Cohen-Hatton. *"I think for me it's a really important point because the stereotype of a firefighter is so strong"* said Sabrina. *"And sometimes when you can't conform to that stereotype, it can be a bit tough and you feel a bit like an outsider."*

And few would guess that Sabrina was homeless for two years from the age of 15, after the death of her father. She sold *The Big Issue* magazine on the streets of Newport in Wales; a magazine and initiative that she credits with having saved her life.

Despite these tough teenage years, Sabrina completed her high school examinations and joined the fire service in South Wales in 2001 at the age of eighteen. She was the first woman firefighter at the station. Now a Chief

Fire Officer (CFO), she is one of the 56 CFOs in the UK, five of whom are female. She is also now an ambassador of *The Big Issue*.

Talking to Sabrina, the issue of identity and diversity was an obvious place to start a conversation. One reason is that diversity is known from research to be important for learning and organisational performance.

"When I became comfortable with being different, what I realised is that I don't have to hold on to that stereotype anymore. I can be free to consider different things, to present different needs, and to be a bit more different."

Following her introduction into the service, Sabrina's route certainly was different. While working, and even while raising a family, she earned a degree in psychology and a PhD in behavioural neuroscience. These achievements influenced her contribution to the service, much of which concerns safety and learning.

Diversity and Learning

The power of diversity for learning is well known in the literature, and it's visible in practice. Having facilitated and observed well over 150 workshops and focus groups on organisational culture with aviation staff over the years, one thing has always struck me: more insights came from more diverse

groups, in terms of both gender and job roles. Gender parity in ATM is much higher in some countries than others.

Sabrina said that being different helped with her journey into psychology and eventually into neuroscience. *"I think we often underestimate the power of difference. When we talk to people in other industries with different backgrounds and different experiences, what we get is a new opportunity for different connections. And that is so important when we're trying to discover or do something new or different."*

Preparation and Performance

A different perspective that Sabrina brought concerned learning from training. Reading her book, *The Heat of the Moment: A Firefighter's Stories of Life and Death Decisions*, I wondered what I might learn about the everyday work of firefighters, including how they learn from everyday work. What I noticed is that everyday work for firefighters is not as I imagined.

"I think that people assume that we're all going out on fires and on emergency incidents literally all the time", said Sabrina. *"I think they watch things on TV like 'London's Burning' [a British TV show] and think that every shift you're going to have a career-defining fire. And the reality is, that only represents about five to 10 per cent of our time."*

So, what makes up the rest of the time? *"We spend a huge amount of time on training and investing in our skills,"* she said. On top of that is a lot of fire prevention work – as a legal duty.

It struck me that when it comes to preparation and performance, front-line, performance-critical professionals can be placed on a continuum in terms of time spent on front-line work versus time spent preparing for front-line work. On the one end, we have elite athletes who prepare for most of the time. On the other end, we have clinicians who perform for most of the time.

Firefighters are closer to the elite athlete end of the spectrum, and much learning comes from day-to-day training. In her book, Sabrina noted that over the past decade, the number of incidents to which the service attends has reduced by 50 per cent. Firefighters respond to a much greater range of incidents, but have less experience of each type. Today's commanders receive half the operational experience of their predecessors, she stated.

Simulation and Training

Sabrina and her colleagues have researched three very different training methods: virtual reality, traditional training exercises and 'live burns'. She wrote in her book *In the Heat of the Moment* that training simulations were found to be effective in building experience in the fire and rescue service. She added in our interview that many scenarios are used, particularly for incident command, for instance, wildland firefighting. *"These can be incredibly powerful learning tools because you can go through the 'what if' scenarios with that and run through a number of different variations of each scenario."*

For simulation, her research has found what many in aviation, healthcare and other sectors know from research and practice: realism is key. Participants need to experience a similar context and feel similar levels of stress, pressure and uncertainty as in real-world situations, said Sabrina. Since opportunities to train are so important, time must reflect the working environment. *"There is little use honing your situational awareness, decision-making, communication,*

resilience or leadership skills in a scenario you will never find yourself in," she remarked. Time for training is especially precious for senior strategic commanders from multiple agencies who coordinate the most complex and challenging of incidents remotely. Learning from training opportunities must be maximised.

There are implications for decision-making and coordination, individually and collectively, for teams and organisations, and between organisations. Commanders must experience stress, and be trained to handle it, not only to enhance decision-making, but to help manage emotions such as anger and irritability, which can affect communication, teamwork and leadership. Sabrina wrote, *"We already knew the importance of a good dose of stressful, emotional realism and how it could stretch commanders and prepare them for the unforgiving pressures of the incident ground. However, we also learned that command training simulations were effective in engendering similar decision-making processes to those we had observed in real life. Your brain responds to decisions in the same way."*

At a team level, Sabrina wrote in her book how training together builds mental models and creates a shared situational awareness.

"We know that responding to a major incident requires the effort of a large number of people, several different teams and multiple agencies. We know too that major incidents are dynamic environments. There are so many different micro-operations moving in tandem that, very quickly, individuals may find themselves responding within the confines of their own experience, based on their own mental models and their own situational awareness."

She described how individual responses can become detached and separated from the overall strategy, *"like an out-of-tune violin disrupting the sound of an orchestra"*.

Work-as-Prescribed and Work-as-Done

As with aviation and other safety-critical sectors, simulation in the fire service

is crucial in allowing for learning from scenarios that are impractical on a significant scale. This was one of the things Sabrina and her colleagues looked at during the research for the UK national command decision-making trials (Chief Fire Officers Association, 2015). The work looked at the effectiveness of simulated contexts for learning.

What they found was interesting: the decision-making processes that were applied were similar across the board. *"But if anything, there was a trend towards more 'textbook' responses in the very highly immersive but highly simulated environments – like virtual reality – than in real situations."*

This brought us to the balance of work-as-done and work-as-prescribed (Shorrock, 2016). In her book, Sabrina noted that *"there are certainly times when a policy offers a framework through which a scenario can be analysed. But what if sticking to it would make things worse?"* She invoked a policy-practice double bind: *"The fire commander could be criticized easily for defaulting to the policy line, for not applying discretion. However, is such criticism fair when someone is simply applying the rules laid out for a set situation?"*

Perhaps, she argued, the rigidity of policies could contribute to decision inertia, or have personal and legal consequences. *"A commander may fear disciplinary measures if they deviate from the procedures, or challenges to their reputation both legally and professionally."*

Decision Controls

One thing that can help in this, and in decision-making more generally, is what has been termed the 'decision controls process' (see Figure 1). This outlines how commanders can facilitate both analytical, reflective decision processes ('slow thinking') and intuitive, reflexive processes ('fast thinking'). The decision controls incorporate the findings of the research and help to support command decision-making.

"We found that most of the time, decisions were made in a very intuitive way", Sabrina explained. *"That means that people could respond very quickly in*

a very dynamic situation. But it might actually have unintended consequences, because what people were doing was responding to an individual cue as opposed to thinking about the big picture."

Sabrina and her colleagues wondered how they could help safeguard people against this. Three key questions were developed:

- Why are we doing this?
- What do we think will happen?
- In light of these considerations, is the benefit proportional to the risk?

There are also prompts to ensure a common understanding and position on all relevant factors, and to support individual decision-making (see *In the Heat of the Moment*, pp.187-188).

She explained that this *"very quickly gives you an opportunity to make sure that the decision that you're making is the best one in the circumstances or the least worst one."*

Sabrina wrote how commanders using the decision control techniques achieved the highest level of measured situational awareness five times more regularly than the commanders who weren't using the technique. When commanders used the decision control techniques, they gave more explicit consideration to their operational goals,

ensuring that each decision contributed to the overall aim of the exercise. They also anticipated the consequences of their decisions more often and with more accuracy. The decision controls helped to predict the likely outcomes of actions, or the likely development of the situation.

Critically, the decision control process didn't slow down decision-making. These results were a first for the emergency services: for the first time, the fire service had taken an evidence-based look at how they train.

The decision controls are now embedded in UK national guidance for multi-agency response to major and complex incidents. They are taught to all strategic commanders. Sabrina explained how every commander from every emergency service now carries a small card that lists some key prompts, including those decision controls. This serves as a reminder that decision-making is a learned skill that requires practice.

In her book, Sabrina wrote how other people can benefit from these techniques, from the family to the boardroom. *"The approach helps to weed out the tacit influence of the person with the strongest position"*, she wrote.

Mental Wellbeing

It has become increasingly clear in aviation and other sectors that work performance is not the only priority for us as human beings. And as a psychologist, a woman, and a senior firefighter in a male-dominated profession, Sabrina became especially interested in mental health and culture. *"I think the culture is a really key point, because without considering the culture, it's difficult to make any kind of progress"*, she said. *"In a male-dominant environment, there are times when it can be wonderful because you have cohesion, but there are other times when it can be incredibly destructive."* Wellbeing is a higher priority now in the time of COVID, and mental health is close to the Sabrina's heart. She is particularly interested in 'toxic masculinity' and male mental health.

"We know that suicide is the biggest killer of men who are under 45 in the UK. It's a really significant problem. Why is that? Culturally, we know that from being little boys, we say, 'come on, don't cry, be strong, boys don't cry'. We say things like 'man up' and 'don't be such a girl'. That kind of language tells men that you can't share your feelings and it becomes socially unacceptable to do so. You put that into an environment where you're also working on the front line or in a high-risk industry, and it brings another dimension."

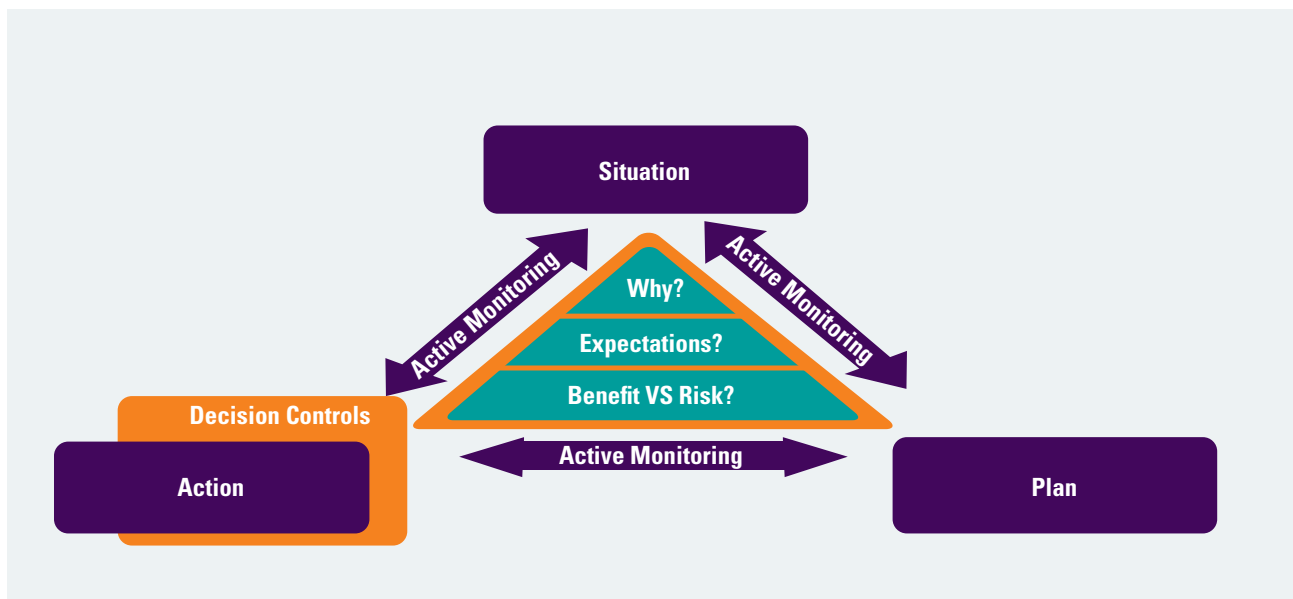


Figure 1: The Decision Control process. (Adapted from Chief Fire Officers Association, 2015).

Sabrina noted a paradox. The research shows that front line workers such as firefighters are disproportionately more likely than the general population to suffer with poor mental health. Yet they are disproportionately less likely than the general population to ask for help. *“For people on the front line, it becomes a huge part of your identity. You start to see yourself as a protector. And so the idea of being a protector and needing help doesn't chime with our ideas of who we are. We've done a lot of work to try to break down the stigma, but there's still a lot more to do in that environment.”*


In her book, Sabrina wrote about how it's almost impossible for firefighters to disentangle themselves as people from their jobs. Like many of us, Sabrina has found that refocusing on family and friends helps. *“I think that the kind of exposure to trauma that we have in the emergency services in particular really makes you value the people that you have around you”,* she said. *“You get to you get to appreciate in living colour the reality of our own mortality.”*

Career Change

Many in aviation have been forced to reconsider their career – even their sector – some for the first time. Sabrina has held several very different positions in the fire service, and we discussed the implications doing something different.

“That can be really frightening. It's your sense of security. It's a sense of who you are. But I think we often underestimate how transferable skills are and how valuable they can be in a multitude of situations. I think it goes back to that point that we discussed at the beginning about not being afraid to be different. We need to apply that to ourselves and think about what else we can do. And that might be something completely different.”

Sabrina thinks that there is something to be said for realistic optimism. *“How we view a situation will affect how constructively we can approach it. Not that it makes it any easier or a pleasant experience to go through something that's completely life changing, but I think that perspective is all important.”*

Sabrina's experience – moving from the streets to the fire service, so far to Chief Fire Officer – offers some inspiration for how we might work through adversity. Despite some traumatic experiences, she has no regrets. *“For me, while there might have been, some difficult days well, and there really have been, in all honesty, wouldn't change it for the world.”* 

References

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Dr Sabrina Cohen-Hatton is a British firefighter, psychologist and writer. She is now a Chief Fire Officer. She has been a firefighter for over eighteen years, and has held a range of positions. Since entering the service as a firefighter in South Wales Fire and Rescue Service, she progressed through various operational roles up to Group Commander. Following a period of research on the psychology of incident command, she moved to Chief of Staff for Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services. Following this, she undertook a number of roles in the London Fire brigade, including Deputy Assistant Commissioner, responsible for all aspects of service delivery in the 9 Boroughs of North West London, protecting a community of nearly 3 million people. She was responsible for 28 fire stations, 1300 staff and a combined revenue and capital budget of £64m.

While serving as a firefighter, she completed a bachelor's degree in psychology, and a PhD in behavioural neuroscience. Sabrina has also been an Honorary Research Fellow (behavioural neuroscience) at Cardiff University. She has published my findings in several scientific journals, and presented internationally. Sabrina has won multiple awards for firefighting, academic research, innovation and influence. For Further information, see https://en.wikipedia.org/wiki/Sabrina_Cohen-Hatton.

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