EMMA BARRETT AND NATHAN SMITH

DECISION MAKING UNDER STRESS

In 2014, 29-year-old Mohammed Uddin spent a few weeks with the Islamic State in Syria. On his return to the UK he was arrested and in 2016 convicted of preparing acts of terrorism.

The jury was told that Uddin returned to the UK because he couldn’t tolerate conditions, which included hardships like cold water, poor food, ‘stinky shared toilets’, and the heredonism of ‘doing absolutely jack (doing nothing)’. At one point, he told an associate back home ‘U need to get used to the cold water and no electricity... it’s tough bro lol, a LOT of patience is required’. People who leave the relative comfort of developed countries to live in remote training camps or enter theatres of war often experience an abrupt and difficult transition. Not everyone can cope, as Uddin’s case shows.

Remote and challenging environments are also encountered by security personnel who might be posted to them, for example, in critical infrastructure industries such as oil and gas organisations, as police or government liaison officers, as part of a military deployment, or perhaps to protect critical infrastructure industries such as oil and gas organisations, as police or government liaison officers, as part of a military deployment, or perhaps to protect emergency services during extreme events such as floods or hurricanes.

Studies of the performance of people who voluntarily enter extreme and unusual environments – mountaineers, polar explorers, astronauts, deep-sea divers, and cavers, for instance – highlight the ways in which decision making is affected by stress in challenging situations. These studies help us understand how decision making by terrorists and security personnel might be affected in similarly challenging environments, and highlight the implications for practitioners and policy makers.

The physical demands of extreme environments, such as severe temperatures, are often obvious and achieving goals can involve the risk of injury and death. The high stakes of extreme environments – mountaineers, polar explorers, astronauts, deep-sea divers, and cavers – can all mean the difference between success or failure. Under these circumstances, decisions often need to be made in time-constrained situations, decisions are usually based on limited and dynamic information. Incomplete, ambiguous, and dynamic information.

In some cases, decision makers under stress experience ‘decision inertia’, a form of mental paralysis in which they procrastinate and find themselves unable to act. Chronic, or enduring, stress can also have a corrosive effect. Experiencing danger, hardship, interpersonal pressure, sleep deprivation, and monotony for days at a time can lead to impaired vigilance, reduced stress-resilience, suppressed emotion, and difficulties interacting with others. All in all, these responses are unlikely to promote sustained effective decision making.

Here are some factors to consider if you are assessing the decision-making capability of a friendly team or a hostile group:

1 WHAT IS THEIR ‘INFORMATION ENVIRONMENT’?

Extreme environments can be characterised by uncertain, incomplete, ambiguous, and dynamic information. Circumstances in extreme environments can change quickly and unexpectedly. This makes it difficult to make an accurate assessment of the situation, thus interfering with good judgement and effective decision making.

2 HOW HIGH ARE THE STAKES?

Many decisions in extreme environments are inherently risky. Depending on the situation, correct judgment could mean the difference between life and death. Under testing situations, decisions often need to be made in time-constrained situations. The stress of extreme environments can also lead to tunnel vision or decision inertia, and may induce perceived or actual time pressure.

3 WHAT IS THEIR PHYSICAL ENVIRONMENT?

Exposure to extremely hot or cold environments has been linked to slower reaction times, particularly when doing complex tasks. At high altitudes, hypoxic (lack of oxygen) leads to mental confusion and slower decision making. Other physical aspects of the context often demand attention to stay alive. For example, in the deserts of North Africa and the Middle East, being alert to poisonous animals, incoming sandstorms, and sources of water could be the difference between life and death.

4 WHAT SOCIAL PRESSURE ARE DECISION MAKERS UNDER?

Being isolated with others can prompt destructive interpersonal conflict, even over little issues like snoring or eating habits. Being aware that colleagues are scrutinising decision making can be a significant and disruptive source of stress, particularly if you are concerned with what other people think of you. For instance, fear of appearing a coward may prompt an uncertain fighter to take reckless risks. Taking decisions as a team can also be problematic in high-stress situations – too much agreement can end up with ‘groupthink’, and too much disagreement can result in indecisiveness, decision avoidance, or outright conflict.

5 ARE THERE PREVAILING CONDITIONS OF MONOTONY AND BOREDOM?

Not having enough to do can degrade morale, sometimes leading to petty squabbling, apathy and depression. Sensory deprivation – monotonous landscapes, or constant deconing noises – can also have strange effects, like hallucinations, and can have a serious impact on vigilance, and even mental health. All these, of course, interfere with the ability to make good choices in critical conditions.

6 HOW MUCH SLEEP ARE THEY GETTING?

Sleep deprivation, caused by lack of sleep or sleeping at odd times (as is common in a theatre of war, or in situations where personnel work shifts), can interfere with the ability to focus attention on relevant information, take in and process information, adapt to changing circumstances, and communicate effectively with team members.

The research is clear: the best way to protect yourself from making poor decisions under stress is to train and prepare for it. Training enhances both skills and self-efficacy, enabling you to make better decisions and giving you the confidence to carry them out with minimal hesitation. High-pressure training simulations give you a taste of what it feels like to experience extreme stress and to understand your reactions to it. Practicing important physical skills repeatedly, like complex climbing manoeuvres, means you become ‘over-learned’ – engrained to a point of being automatic, and more likely to persist in the face of danger and fear.

Team preparation is important: a well-trained cohesive team acts in harmony, coordinating their actions and looking out for each other, to achieve complex goals in hazardous conditions. As part of preparation, consider what you and your team can do to maintain the most accurate information about changing physical conditions, perhaps via a ‘base camp’ crew that communicates with you effectively and often.

Once in an extreme environment, you can minimise the risks of social stress by keeping an eye on minor spats and simmering tensions that could escalate into something more serious, taking opportunities for privacy and ‘time out’ from the group, keeping busy – and most of all, being tolerant and tolerable.

Dr Emma Barrett is Lecturer in Ergonomics at Cranfield University and CREST’s Research to Practice Fellow. She is co-author of Extreme: Why Some People Thrive at the Limits (OUP, 2014).

Dr Nathan Smith is Senior Research Scientist at Dstl and CREST’s Research to Practice Fellow. He is co-author of How to make better decisions under stress

Dr Nathan Smith is Senior Research Scientist at Dstl and CREST’s Research to Practice Fellow. He is co-author of How to make better decisions under stress

Dr Nathan Smith is Senior Research Scientist at Dstl and CREST’s Research to Practice Fellow. He is co-author of How to make better decisions under stress

Dr Nathan Smith is Senior Research Scientist at Dstl and CREST’s Research to Practice Fellow. He is co-author of How to make better decisions under stress

Dr Nathan Smith is Senior Research Scientist at Dstl and CREST’s Research to Practice Fellow. He is co-author of How to make better decisions under stress

Dr Nathan Smith is Senior Research Scientist at Dstl and CREST’s Research to Practice Fellow. He is co-author of How to make better decisions under stress

Dr Nathan Smith is Senior Research Scientist at Dstl and CREST’s Research to Practice Fellow. He is co-author of How to make better decisions under stress