

Mountain Leader Training Exercise

The first in a series of CPD Articles for mountain instructors
From the Mountain Leader Training Association



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Get CPD points for free by reading the article and testing your knowledge with the self-assessment questions at the end. We don't need to know your score, it's a bit of fun and hopefully you'll learn something new too. Value: 0.25 Credit points

How to Make Decisions for the Right Reasons in Avalanche Terrain

Photo: MLTA



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This year I've delivered the BMC's Winter Lectures to many universities and schools. It's been statistically proven that young men feature highly in Scottish mountain rescue incidents, so at first it seems a good strategy to target that demographic (and I am sure it is). Curiously though, on closer inspection it seems many people who are caught out on the hills are considered to be 'experienced'. This is an interesting fact that deserves more investigation.

For many years now 'risk' industries (e.g. aviation, stock market trading) have recognised the human mind's ability to take 'mental shortcuts' (often called *heuristics* or *heuristic traps* (1)) when making decisions. We have evolved this trait for good survival reasons over millennia and it serves us well in many scenarios.

A classic example would be putting a seat belt on when getting into a car (do you seriously risk assess the likelihood of an accident every time you get into the car?). In this case this shortcut can save your life. Unfortunately, in avalanche terrain these shortcuts can be fatal.

In avalanche incidents 'human factors' (the decisions we make and why we make them) are thought to play a significant role.

There are many different heuristic traps but I will highlight some common ones. I'd like to investigate these and imagine how they might affect our decisions on the mountain.

Familiarity

This trap relies on our past actions and experiences to guide our future decisions. I think as Leaders we are most at risk here. If you've walked into Coire an t-Sneachda a dozen times

already this season and nothing untoward has occurred, you may well assume (without applying new evidence or objective information) that this situation will continue. We as Leaders **must make a fresh, objective risk assessment** each and every time we go on the hill.

Consistency

Very similar in some ways to the familiarity trap; consistency relies upon us assuming the same thing will happen to us (i.e. nothing) if that is what happened when we made our first and original decision (a day, week, month or year ago). This heuristic often works in other life scenarios (and it means our minds don't have to 'go over' the complicated risk assessment each time). The problem here is that avalanches don't behave in a predictable manner or pattern. In fact quite the opposite occurs. Often, when in theory an avalanche should occur nothing happens (some statistics suggest as high as nine times out of ten). This means that you could be making bad or incorrect decisions if you are still basing them on what happened last time (i.e. when you 'got away with it'). If you are using this heuristic based on good sound judgement and evidence then

you may well have a long career. If you are not then the inevitable will occur eventually. Play safe and make your risk assessments **dynamic**.

Social Proof

We have evolved as social animals and still respond to 'herding' instincts. We assume that if 'everybody' else is doing it then it must be right. I have regularly witnessed a route in a coire mobbed by climbers when there are many other routes that are potentially better or even safer. Other mountaineers on a slope **do not** make it safe. In a fast developing world of blogs, social networking and Twitter we are even more at risk from this trap.

Acceptance

This trap originates again through social needs and figures highly in avalanche statistics. We are susceptible to wanting to feel 'noticed' or 'accepted' by our peers and potentially may alter or exaggerate our risk taking behaviour to achieve this. The 'classic' example of this is the young male amongst females. Subtle variations are many however for e.g. needing to be accepted by a more experienced (and therefore respected) colleague.



Making the right decision!

Photo: MLTA



Photo: MLTA

Avalanche terrain

Scarcity

This has obviously evolved from the need to gorge in times of famine but it easily transfers to Scottish Winter! Whilst recently we have enjoyed a couple of excellent seasons with great conditions all over Scotland this has not always been the case. It is easy to imagine a 'rare' or prestigious route that is not often in condition being a tempting prize. You only have to witness a powder day in Chamonix to see this trap at work. Routes will be there another day – the real trick is to make sure you are too.

'Expert Halo'

Recreational rather than professionally led groups are more at risk (though not always) from this trap. I have a friend who calls this (not entirely tongue in cheek) 'male answering syndrome'. Beware being part of a group where you abdicate all your decision making to one person for reasons other than knowledge and appropriate experience. Classic examples would be a leader who is either the fittest, eldest or simply the most persuasive. I believe young people (and often women) are possibly most at risk from this trap (although any group with one 'strong' individual is at risk). Be honest with yourself

and in tune with your 'gut feelings'. If you think you need to make a decision, even if that means questioning a 'leader's' judgement, then make it.

Commitment

The commitment trap is possibly the most often seen or cited example. As Leaders you may have elements of financial commitment which at the best of times is hard to separate from cold, clinical judgement. You (or your clients) may have committed large amounts of (valuable) time also to your objective. The more you perceive you have 'invested' the more likely you are to stick with a chosen course, with obvious ramifications. There are subtle variations to this trap, for e.g. an effort trap. If you have put large amounts of effort (getting up at an ungodly hour, training for six months, driving 400 miles for the weekend) into your objective then you are less likely to give it up.

Conclusions

Recognising avalanche conditions and managing terrain is vital to safe travel in the mountains. In addition to recognising the phenomenon however is the ability then to **make good, effective decisions** based upon the

evidence (not other factors). I have certainly been 'victim' to many if not all of the above and continually reassess my own decision making.

A flexible approach that allows decisions to be made easily is paramount to success and should be encouraged whatever scenario or environment we operate in.

(1.) Heuristic or heuristics (from the Greek for 'find' or 'discover') refers to experience-based techniques for problem solving, learning, and discovery. Heuristic methods are used to identify an optimal solution as rapidly as possible. Examples of this method include using a "rule of thumb", an educated guess, an intuitive judgment, or common sense.

In more precise terms, heuristics are strategies using readily accessible, though loosely applicable, information to control problem solving in human beings and machines.

References: *Heuristic Traps in Recreational Avalanche Accidents: Evidence and Implications* by Ian McCammon (*Avalanche News*, No. 68, Spring 2004), Bruce Tremper's 'How to Survive in Avalanche Terrain' and <http://en.wikipedia.org/wiki/Heuristics>

Self-Assessment Questions

Q) 1. From the following scenarios identify potential heuristic traps. In addition how would you ensure you remain objective and minimise your susceptibility to them?

a) You are engaged by a walking club to lead a group on a winter day out. This will involve some basic use of crampons and walking axes. You are familiar with a local mountain which has a variety of steep ground to work on. The club has driven for half a day to get to you and have fundraised for this course. The weather is forecast to be heavy snow and high winds.

b) You advertise a 'climb Ben Nevis' course which attracts three clients. Two are recently divorced males who run successful hedge funds in London. The third is a young woman who lives locally. The weather is forecast to be heavy snow and high winds.

Q) 2. Describe two different scenarios where you can imagine a heuristic trap affecting decision making. Try to use three different heuristics and to include anecdotes.

Got the right answers?

See the MLTA pages on the MCofS website at: www.mcofs.org.uk/mlta.asp