

Critical Incidents in Adventurous Activities

BMOE6001 A1

In this essay, I will be writing an account that will critically analyse the response to situation where risk-taking turned into a critical incident. The presence of risk is an inherent part of adventurous activities. In an article by Kerr and Mackenzie (2012, p. 9), the authors note that risk taking is identified as one of the motives for participating in adventure sports. This motive combined with the positive factors of connecting with the natural environment, and testing personal abilities to overcome fears are echoed in Varley's (2011, p.96) findings where similar factors are identified. The author concludes that these '*are important aspects in the theoretical construction of the outdoor adventure*'. This essay is a critical analysis into the decision-making process displayed in a video depicting a critical incident taking place, reflecting on how it could be improved to act more efficiently during such an incident.

The incident took place on the 7th of March 2020, on the steep, grassy, south-facing slopes of Bwlch Coch saddle. A group of 2 people who I will refer to as Person A and Person B, caught up with another group of 2 people who I will refer to as Person C and Person D, while traversing the Crib Goch ridge on the Snowdon Massif range in North Wales. Towards the end of the traverse, the now group of 4 collectively decided that they were going to descend the steep grassy slope as an escape route down to the Pyg track due to the conditions that day; 45-55mph gusts with pulses of rain, a blanket of fog and significant wind chill (Mountain Weather Information Service, 2020). It was at the start of this descent that Person D lost their footing and slid past the other group members disappearing into the mist. From this point, Person D has become the casualty and I will refer to them as both Person D and the casualty when appropriate. As the person with the most experience and with a Mountain Leader Qualification, Person A took a leadership role in the group from this point. The group rushed down the slope in search of the casualty, calling mountain rescue at some point in their descent, before luckily hearing the shouts of the casualty through the mist. Person A takes over administering first aid assisted by Person B, while Person C remains on the phone to mountain rescue. The first aid was mainly focused on prevention of further exposure to the elements and hypothermia. Person A then runs up and down from the incident location to

the Pyg track in search of help before remaining with the casualty until mountain rescue arrive.

Focusing more on the initial response to the incident, the first clip seen after the incident had occurred shows Person A uncontrollably sliding down the slope. They luckily come to a stop at a verge that Person C is on after what we can assume was a similar slide in a rush to get to the casualty. Person B then comes sliding down behind them in the same fashion before calling out and being slowed to a stop by Person A. This clearly demonstrates that the initial response of the group was panicked and rushed as they try to get to the casualty quickly, which consequently almost saw the whole group succumbing to the same risk that caused the incident. As a qualified Level 3 Outdoors First Aider, I know that considering the safety of yourself and the group must come before the casualty, as echoed in this article by Ellerton (2010). Ellerton says that in the event of a mountain incident, the first response should be to, *'Stay calm. Take time to assess the situation and decide what to do'*. Had Person A taken more time to assess the situation, they may have been able to make more effective decisions instead of hastily leading the group down the slope, potentially becoming casualties themselves. One of the key decisions that should have been made here, was for Person A to immediately move themselves and the group to a point of safety and to call for emergency services. Finding a safer space could set the foundation for then deciding on the most safe and effective response to the critical incident.

Understanding the location and the incident are key factors in making this decision. Arguably, Person A was right in initially attempting to locate the casualty as they may have come to a natural rest or not needed the help of emergency services. Wasting emergency service time is a genuine concern that can be raised in appropriate situations where a casualty has minor injuries that can be treated while safeguarding yourself and the group; Ellerton (2010) even encourages investigating if unsure whether the incident in question is an emergency or not. However, having visited the slope in question and analysed the incident, it is clear to me that these key decisions would have been more appropriate to make. As a qualified mountain leader and having used the slope as a route before, we can assume that Person A had a good understanding of the terrain and prevailing conditions of that day. Also, the speed at which the casualty was sliding down the slope before the group lost sight is described to have been

relatively fast. With this information, that Person A would have had, we can deduce that the casualty would have fallen a considerable distance moving at a high speed before coming to a natural stop somewhere at the bottom of the slope. At face value, this information provides insight into the suspected condition of the casualty, and a first aider would assume that the casualty has sustained serious injuries with suspected spinal damage and would be very aware that trying to move the casualty off the mountain without emergency services would be near-impossible. Therefore, the initial call to mountain rescue would have given the emergency services more time to respond which is crucial in incidents like these. Helen Howe (2017), mountain first aid expert and Llanberis Mountain Rescue team member describes in her article that mountain rescue can take upwards of 2 hours to reach you. This further demonstrates how calling mountain rescue sooner rather than later in an incident like this would be beneficial as they would have been able to respond sooner. Allowing for this initial call to emergency services, preferably delegating it to someone else, would have also allowed Person A to think more carefully about their next actions in a way that safeguards the group and themselves. This view is supported by Barton (2007, p.152) who states that a leader should resist the temptation of '*hands-on involvement*' and instead, focus their attention on trying to resolve the situation by '*making good decisions and avoiding bad ones*'.

This raises the question; should they have descended the slope? The answer to this question is not as straightforward as it seems, but analysing the positive and negative aspects of both answers will allow a conclusion to be reached. With the benefit of hindsight, it is undeniable that the descent of this slope and the subsequent administration of first aid on the casualty played a crucial role in the survival of the casualty. Had the group decided to stay at the top of the slope, exposure to the elements could have been potentially fatal to the casualty. Also, after the slide to the verge, the group display a more cautious approach to the terrain. Despite their increased caution, they were all visibly still struggling and slipping down sections on the descent with Person B having the most trouble. In their position, with limited information about the condition of the casualty it may seem like a rational decision to rush down after and administer what could potentially be lifesaving first-aid. Conversely, it is the fact that they had limited information on the condition on the casualty that should have informed their decision to call mountain rescue from a point of safety at the top of the slope. When the group reached the bottom of the slope, the main reason for locating casualty so quickly was

that the casualty was conscious and was able to respond to their shouts. Had the casualty been unconscious their search efforts would have been heavily impeded. In my own experience of search and rescue exercises, I failed to locate someone in perfect conditions who was lying on the floor less than 10 meters from me. Although I have much less experience in those environments than Person A, this demonstrates how easily things can be missed even in perfect conditions, let alone in conditions with low visibility. Ultimately, the decision they made to descend the slope with the information they had available to them could have led to a much worse outcome of four casualties at the bottom of the slope, without no call to emergency services being made as it was not a first response. Therefore, the group should not have descended as an initial response to the incident, and certainly not out of panic and impulse as displayed in the video.

Considering this factor along with the limited information they had raises another question; why did they decide to continue descending the slope? The rationale behind this decision seems simple - they wanted to get to the casualty quickly. But further examination of this decision could provide useful for reflection of why it was made without question. Upon analysing the events leading up to, and the decision to continue descending slope after the incident had occurred, an argument can be made that the group had fallen victim to the Familiarity Heuristic Trap (McCammon, 2004, p. 3). McCammon builds on the original principles of heuristics and cognitive biases by Tverky and Kahneman (1974) where they describe three heuristics that people use *'in making judgments under uncertainty'*. The six heuristic traps that McCammon proposes are focused mainly on avalanche accidents, but there are useful links to draw from the incident in question. The Familiar Heuristic Trap focuses on the leaders' past actions in a familiar setting. McCammon goes on to say, *'Rather than go through the trouble of figuring out what is appropriate every time, we simply behave as we have before in that setting'* and that *'when the hazard changes but the setting remains familiar, this rule of thumb can become a trap'*. This can be applied both when the initial decision was made to use the slope as an escape route, and when the decision was made to carry on down the slope after the incident had occurred. This is because they had all used the slope before, so even after the incident had occurred, the heuristic trap they had fallen in will have influenced their perceived risk of the slope and their decision-making process. They may have used the slope before, but had they used it in these conditions? McCammon further

proves this in his findings that parties with advanced training in avalanche safety were much more likely to expose themselves to greater risks on familiar terrain, and that the large number of accidents that happen on familiar terrain suggests an overestimated sense of how safe these slopes were. Applying this to the group in question, you can see Person A as the most qualified and experienced in the group may have been the prime victim to this trap. Another hypothesis that can help us understand their decision-making process here is Optimistic Bias (Weinstein, 1980). His findings support five hypotheses on the event characteristics, and one hypothesis on personal characteristics that affect *'unrealistic optimism'*. These hypotheses include things such as; the perception that negative events are less likely to happen to you; greater perceived controllability of a negative event influences the perception the event is less likely to happen to you, and; previous experience with an event can influence your perceived chances of the event occurring to you. When applying these hypotheses to the incident in question, you can see that the Familiarity Heuristic Trap may have developed into an Optimistic Bias that influenced their decision-making process and ultimately led them down the slope. Furthermore, the positive outcome of this rather risky descent may influence a risk homeostasis effect (Wilde, 1998) in Person A.

Person A released a follow up video to the main video of the critical incident, where they revisit the slope to retrace the steps they took and explain some of the decision-making process from their point of view. In this video, Person A is shown equipping their walking shoes with Microspike Crampons to mitigate the risk of sliding down the slope the same way Person D did. Furthermore, Person A later goes on to explain how they will carry their crampons so they have the *'option of coming down steep terrain if I [they] have to. But preferably, don't have to do it. Find another option'*. Here, I see the potential for a Risk Homeostasis effect to occur in Person A. The theory of Risk Homeostasis (Wilde, 1998) proposes that risk-taking behaviour in a population will increase, or decrease based on the in-place safety measures, to maintain a level of risk. Applying this theory to the scenario in question, you can see that Person A has demonstrated the potential for a Risk Homeostasis effect in the way they use their crampons through the potential of exposing themselves to similar risks in the future. However, it is clear towards the end of the statement that Person A has reflected on the incident and is more aware of the risks involved with slopes like this.

Despite the risk, there were notable positive aspects in response to the incident. Once the slope had been descended, Person A was able to focus on first aid assisted by Person B while Person C remained on the phone to the emergency services. This shows a clear delegation of roles by Person A so they could focus on the main task, as Barton (2007, p. 152) suggests a leader should. Overall, the first aid displayed by Person A does have its flaws, as they recognised in their follow-up video, but they did manage to focus their first aid efforts on the main aspect that could have potentially killed the casualty; exposure to the elements. The early treatment and prevention of hypothermia can be crucial and includes preventing further heat loss, which is displayed in the video (Haverkamp, Giebrecht, & Tan, 2017, p. 150). However, it must be said that poor bag organisation and preparation caused problems in how Person A could efficiently use the available equipment. In addition, the process in which they came to focus on hypothermia prevention skipped vital steps that could have identified a catastrophic bleed, had the casualty been suffering from one. It could be argued that in the amount of time it would have taken the group to descend the slope, the casualty may (Mountain Weather Information Service, 2020) have lost consciousness from blood loss had they suffered a catastrophic bleed, and that the fact the casualty was conscious allowed Person A to skip these steps. Still, the current first-aid guidelines supported here by Ellerton (2010) state that checking for adequate circulation and blood loss comes before preventing exposure. Brushing over this step could have had catastrophic consequences for the casualty.

In conclusion, the efforts displayed by the group in response to the incident are clearly from a place of compassion and quick response. The group, knowingly or not, exposed themselves to a great risk and were ultimately able to play a crucial role in the survival of the casualty. However, the benefit of hindsight specifically on the positive outcome of their actions can skew how we view the risk they exposed themselves to in achieving this outcome. Upon analysis of the key decision-making moments before, during, and after the incident, the group and specifically Person A displayed clear indications of their decisions being influenced by optimistic bias (Weinstein, 1980), the familiarity heuristic trap (McCammon, 2004), with the potential for a risk homeostasis effect (Wilde, 1998) to occur in the future. Learning from this, an alternative course of action where prioritising the call to emergency services while safeguarding the group could have been beneficial. When faced with an incident like this, it can be easy to forget to follow the first set of procedures. Barton (2006, p. 34) states in his

book 'when the actual crisis arrives, even the simplest of tasks like identifying a location or making a phone call suddenly becomes desperately difficult'. I have had first-hand experience of this in an emergency simulation where I failed to call, or delegate anyone to call the emergency services because I was too focused on the situation I was presented with. A key takeaway from this is that the crucial steps of staying calm and planning the next decisions carefully are paramount when a critical incident strikes.

Works Cited

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