

GRIEF AS A SHARED HUMAN AND OCCUPATIONAL EXPERIENCE: UNLOCKING INSIGHT INTO HUMAN FACTORS

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ABSTRACT: Grief and loss are often hidden realities in snow science and mountain professions, yet acknowledging and processing these experiences can yield deep insights into human factors that shape decision-making, safety culture, and community resilience. The ski, snowboard, and avalanche mitigation industry — including researchers, forecasters, field workers, and operations professionals — faces a uniquely high rate of trauma and fatalities, and cultural norms often favor stoicism, dissociation, and rapid return to work. This paper examines how authentic engagement with grief can illuminate the human dimensions of loss that are frequently sidelined in technical disciplines. Through an in-depth case study and synthesis of lived experience with professional practice, we explore how confronting grief deepens understanding of risk perception, communication, and interpersonal dynamics in high-stress environments. By situating personal loss within the broader context of occupational risk and human performance, this paper fosters dialogue about mental health, community support, and the value of human connection in an industry that historically understates emotional impacts. Readers will gain insight into how openly addressing grief can strengthen empathy, enhance safety culture, and promote wellbeing across research and practitioner communities. Ultimately, this paper advocates for integrating human factors awareness — including grief and loss — into professional practice to build more compassionate, resilient mountain communities.

KEYWORDS: Grief, Human Factors, Decision-Making, Loss, Mental Health, Resilience

1. BACKGROUND/CONTEXT

We work, laugh, and grieve alongside people we love — and all of us, eventually, will lose someone, or be lost ourselves. The reason this topic is of such deep importance to me is that throughout my guiding/educating career

connect. They are given space to wail, scream, laugh, dance, be held, be in community around the fire. Yet, in our Western culture, there is an unspoken discomfort with grief and so it is often met with clichés such as “At least they died doing what they loved”. We treat death as traumatic rather than inevitable. Indeed, sometimes tragic accidents ARE the cause of death; yet we are still shocked and surprised that it could happen to our loved ones, our colleagues, or in our workplace. The people that heal most effectively from the loss of a colleague are ones who work in a place where connection, trust and psychological safety existed prior to the loss. Then, when the worst-case scenario becomes the new reality, the base of connection and support already exists and people feel safe to express their own experience of grief. When this basis is not present and the culture operates under the age-old paradigm of “suck it up and deal”, “the show must go on”, “shit happens”, “get back on the horse” or “drink it off”, we are faced with the tragedy of an industry where some people are able to healthily dissociate and continue to do their jobs, but others struggle to integrate what they are experiencing with continuing to be competent at work. The reason this should be of utmost importance to employers is because it impacts the bottom line as well as retention of institutional knowledge.

There is a research gap connecting the impacts of grief as a human factor in our decision making. This paper is a compilation of my lived experience, case studies from ski patrols, professional athletes, heli-ski companies and forecast centers with whom I have worked intimately; as well as an integration of the current research on grief and risk. My aim is to highlight Mammoth Mountain Ski Patrol for their choice to engage with this differently. May we look more closely at their model to investigate how we can emulate their bold innovation in cultural change.

Rachel Reimer’s Rise Study, an interview-based study of 17 interviewees in the U.S., Canada, France and Switzerland, defined psychological safety as: “Psychological safety was defined by research participants as feeling safe enough to show one’s full self and to speak up when feeling unsafe due to either mountain or human-caused hazards based on the principles of trust, interconnection, and reciprocity within a group. Factors that supported psychological safety were (in order of strength in the data) vulnerability, teamwork, physical safety, and gender diversity. Psychological risk in relation to human-caused hazards was found to significantly affect physical safety from mountain hazards for both members of

For someone in charge of an avalanche mitigation route, a forecaster out making field observations, or a guide determining a particular slope's stability, this matters enormously. Avalanche terrain punishes exactly the kind of attentional lapse, memory gap, or slowed processing that grief produces.

2.2 Emotional symptoms

Guilt, anger, hostility, restlessness, and a diminished capacity to initiate or maintain organized activity are common, alongside numbness, sadness, fear, shame, loneliness, yearning, self-reproach, and helplessness. A professional relies on their situational awareness coupled with their vast knowledge of their field to make decisions. These feelings actively compete with these professional resources needed to effectively assess a hazard or lead a team (Ernstmeyer et al., 2024).

2.3 Physical symptoms

Tightness or heaviness in the chest or throat, nausea, dizziness, headaches, numbness, muscle weakness, and fatigue are typical, and a weakened immune system and disrupted sleep are common as well. Grief is also physiologically taxing at a level most people don't expect. Intense grief has been associated with increased cardiovascular and cerebrovascular events, including myocardial infarction and Takotsubo (stress) cardiomyopathy — the "broken heart" is a real physiological event, not only a metaphor. A body running on impaired sleep, elevated stress hormones, and reduced physical reserve is not a body operating at its baseline capacity for a demanding physical job in cold, high-altitude, high-consequence terrain (Schoo et al., 2025).

2.4 Behavioral symptoms

Grief doesn't push behavior in one predictable direction — it destabilizes the whole system, and different people (or the same person at different times) land on opposite ends of the spectrum (Osterweis et al., 1984):

itself becomes the hazard, in an environment where indecision at the wrong moment can be just as dangerous as overconfidence (as was my experience at VHSG). Human factors research has spent two decades cataloguing how ordinary cognitive biases get people killed in avalanche terrain. Grief deserves to be named as its own distinct human factor — one with a documented physiological and cognitive basis, and a bidirectional behavioral signature that current human factors frameworks don't yet capture.

3. CASE STUDIES IMPACT ON HUMAN FACTORS AND DECISION-MAKING

Nathan's drinking intensified. Emily could no longer sleep. Mark refused to go on mitigation routes. Sally began taking unnecessary risks. Joel quit. Suzy had anger outbursts at her colleagues. Tyler suffered a scary near miss at work due to insomnia and brain fog. All these symptoms of grief dramatically impacted decision-making in potential high-consequence work environments. We all know these examples. We have lived this reality time and time again in this industry.

These examples, with real people's names changed to protect their privacy, are drawn from years of working with clients as a resiliency coach specializing in grief, trauma, and loss.

This season, I joined forces with Ken Wylie and Aidan Manahan of Archetypal to provide a different type of organizational support to an innovative team at Mammoth Mountain. I have been expressly given permission to use their organization's name. I would like to celebrate companies like Alterra and Mammoth who are courageously thinking outside the box to update creative solutions to old problems. In the case of Mammoth, their ski patrol had suffered the unimaginable loss of not one, but two patrollers in less than a year. What Ken, Aidan and I proposed was entirely new to the ski industry. Previously, the majority of organizations, following an incident, would direct impacted employees to resources such as local therapists listed under their Employment Assistance Program. Many people in these industries are so exhausted on their days off that doing laundry is difficult, much less calling an unknown number on a card and explaining the complexities of a career in avalanche mitigation to a person who may be unfamiliar with these nuances. Instead, Ken, Aidan and I

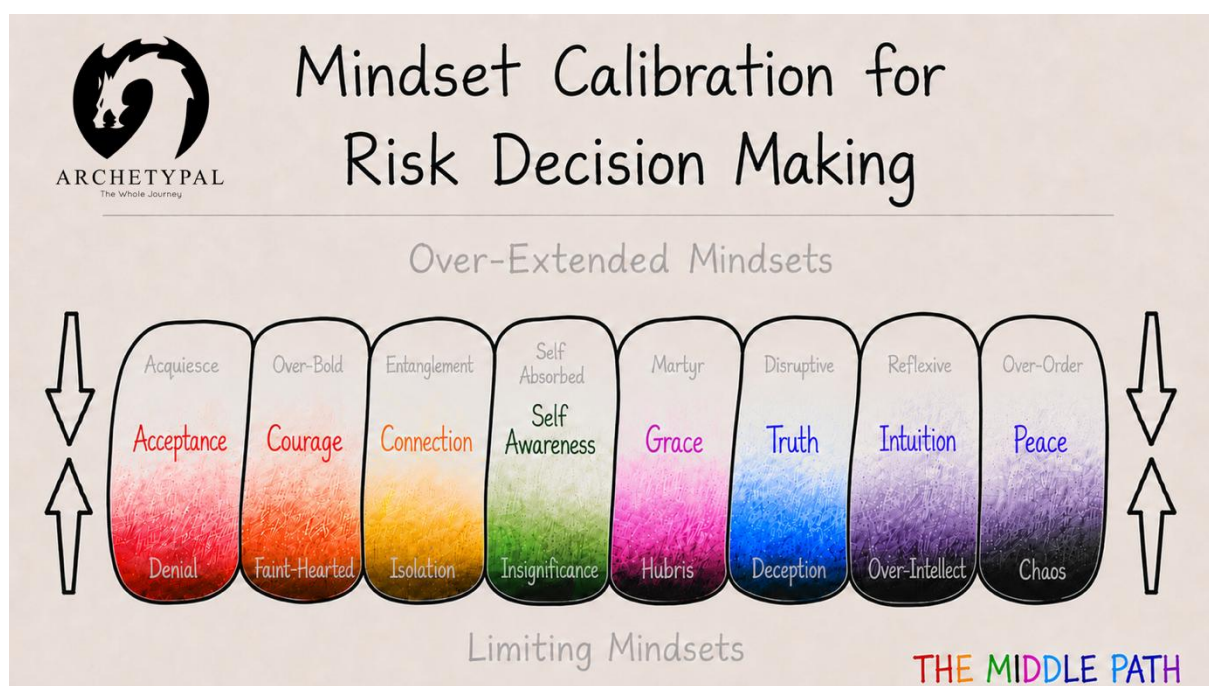


Figure 1: Archetypal's Mindset Calibration for Risk Decision Making

4. OTHER RESOURCES/EDUCATIONAL TOOLS

One thing is clear: there isn't one model or methodology to rule them all. This is an ecosystem in which we are committed to working together to provide the best possible toolbox to support those in need. In lieu of a comprehensive listing of resources, I would like to highlight a sampling from this ecosystem.

4.1 Responder Alliance: <https://www.responderalliance.com/>

Responder Alliance is an industry leading organization, known for translating best practices in stress mitigation, including employee loss. Responder Alliance has been endorsed by the International Congress in Alpine Rescue's guidelines on stress mitigation. (<

TEAM STRESS CONTINUUM

READY	REACTING	INJURED	CRITICAL
Team Approach To Overwhelm Transparency Connection Curiosity Culture Requests For Help Met With Support Sense Of Mission Mission Satisfaction	Normalizing Depletion Transactional Communication Mistakes Are Personal Requests For Help Are Criticized Staff Dreading Work Mission Drift	Resources Scarce Communication Silos Rigid Perspectives Members Undervalued Suffering In Silence Helplessness Mission Fatigue	Cliques And Hierarchy Gaslighting Lack Of Trust Culture Of Blame Fear At Work Vulnerability Punished Hopelessness Moral Injuries

ADAPTED FROM COMBAT AND OPERATIONAL STRESS FIRST AID BY LAURA MCGLADREY | RESPONDERALLIANCE.COM

Figure 2: The Responder Alliance Team Stress Continuum

TRAUMATIC EXPOSURE PROTOCOL

POTENTIALLY TRAUMATIZING EVENT (PTE) CRITERIA

- FAMILY CONTACT

TRAUMATIC STRESS QUESTIONNAIRE		
COMPLETE AT THE 3 WEEK CHECK-IN. ASKING THE QUESTION: HAVE YOUR RECENTLY EXPERIENCED ANY OF THE FOLLOWING?		
(AT LEAST TWICE IN THE PAST WEEK)	YES	NO
1. Upsetting thoughts or memories about the event that have come into your mind against your will?		
2. Upsetting dreams about the event?		
3. Acting or feeling as though the event were happening again?		
4. Feeling upset by reminders of the event?		
5. Bodily reactions (such as fast heartbeat, stomach churning)?		
6. Difficulty falling or staying asleep?		
7. Irritability or outbursts of anger?		
8. Difficulty concentrating?		
9. Heightened awareness of potential dangers to yourself and others?		
10. Feeling jumpy or being startled by something unexpected?		

C. R. BREWIN ET AL, 2002

Figure 4: The Responder Alliance Trauma Stress Questionnaire.

4.2 S.O.A.R. Survivors of Outdoor Adventure and Recovery: <https://www.soar4life.org/>

Weller, F. (2015). *The wild edge of sorrow: Rituals of renewal and the sacred work of grief*. North Atlantic Books.

Devine, M. (2017). *It's OK that you're not OK: Meeting grief and loss in a culture that doesn't understand*. Sounds True.

5. CONCLUSION

By sharing my case study and the other resources available, my hope is to broaden our traditional approach when dealing with tragedies. We once gathered around the fire following loss and found in our connection, a lightening of the load. It is also important to note, A colleague does not have to be killed in the line of duty for grief to impact a team or individual. This year, Snowbird Ski Patrol lost their director, Tina Biddle, who died in her sleep. So, too, did The State of the Snowpack lose Judson Wright this year, in the same manner. The Chugach National Forest Avalanche Information Center lost their beloved director, Wendy Wagner, to cancer just as the season was beginning. These losses were carried through the season by their co-workers. Yet if you speak with any member of Snowbird Ski Patrol, State of The Snowpack's team or the forecasters from CNFAIC, they will inevitably share that though the grief was profound, the powerful healing they found in connection with each other served them deeply. If we invested in creating psychologically safe workplaces and resilient teams prior to tragedy striking, it would pay off through staff retention, fewer workers' comp injuries, and a mission that attracts the field's best workers.

6. ACKNOWLEDGEMENTS

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7. REFERENCES