

Touching the void: The loss of containment and the space between operational and entrepreneurial leadership in the K2 disaster

Abstract

In this paper, we seek to understand how members of a collective facing a novel, unprecedented challenge can lose an integrated and realistic connection to the people, events, opportunities, and threats around them. Using extensive data, including interviews with survivors and unique video footage we analyze how eleven experienced climbers lost their lives in 2008 attempting to summit K2, the world's second-highest mountain. Existing theories of leadership and information-processing views of human cognition do not fully explain observations from our qualitative study. However, containment and social defense constructs suggest how and why people failed to respond to the impending disaster. We offer four key findings. First, destabilizing conditions can erode operational leadership resulting in a breakdown of the traditional sanctuaries of procedure, role clarity, hierarchy, and positional authority. Second, despite clear, escalating threats and the potential for impending disaster, individual and collective responsiveness, proactivity, and adaption can fail to materialize. Third, people's responses to novel, unprecedented circumstances are deeply connected to and reliant on the ways collectives develop to contain anxiety. Finally, loss of containment can result in a void, disabling people from confronting and adapting to challenging situations realistically and competently.

Keywords

Complexity leadership, extreme context, containment of anxiety, social defenses

Introduction

In collective endeavors, such as teams and organizations, maintaining a sense of stability in order to coordinate, structure and control activities (the administrative function) as well as generate the conditions for innovation, improvisation and change (the adaptive function) (Selznick, 1949) has been suggested as an important function of leadership (Arena and Uhl-Bien, 2016; Uhl-Bien et al., 2007; Uhl-Bien and Marion, 2009). In this paper, we explore the relationship between these two functions of leadership in the context of novel, unprecedented circumstances. Specifically, why, despite a breakdown in administrative function and faced with a well-defined and ominous threat, experienced professionals can fail to respond and adapt to prevent or mitigate impending crises. We argue that adaptive responses in collectives are deeply connected to and reliant on the ways they develop to contain anxiety.

Following Weick's (1993) seminal study of the Mann Gulch disaster in Montana in 1949, in which 13 firefighters were killed, much of the existing literature on individual and collective responses to novel, unprecedented challenges has adopted an information-processing view of human cognition (Cornelissen et al., 2014; Weick, 1993; Weick and Sutcliffe, 2007). The prevailing explanations for the collapse of 'sensemaking' (Weick, 1993) or 'contraction of meaning' (Cornelissen et al., 2014)) in novel and unprecedented situations has been the ability of people to test incoming cues for relevance and match it with previous experience (Kahneman and Klein, 2009). In particular, despite a few notable exceptions (e.g., Bartunek et al., 2006; Cornelissen et al., 2014; Dwyer et al., 2023; Myers, 2007) few studies have addressed how emotions and anxiety affect decision making and action in extreme environments.

Destabilizing conditions in extreme environments can erode operational leadership resulting in a breakdown of procedure, role clarity, hierarchy, and positional authority. Operational leadership is defined as "leadership in the formal systems, structures and processes that produces results through selection, refinement, execution and efficiency" (Uhl-Bien and Arena, 2018: 98). Whilst the loss of familiar structures can result in inferential flexibility and

improvised behaviors (Cornelissen et al., 2014; Weick, 1993; Weick and Sutcliffe, 2007) and more fluid approaches to collective action (Uhl-Bien et al., 2007), the loss of stable structures also stimulates great anxiety and creates defensive responses that can impede the required adaptation and collaboration. Adaptation requires what Heifetz and Laurie (2001) refer to as a “holding environment,” a “safe” site to explore tensions, difficult experiences, and emotions involved in dealing with complex and uncertain challenges. The implication is that in combination, the dynamic interaction of increasing environmental complexity and uncertainty, and the lack of a holding and containing space disables people from being able to confront situations realistically and competently. To date our understanding of the relationship between leadership activities and the significance of containing and holding environments is still limited.

The main objective in this paper is therefore to elucidate how leadership enables or constrains the ability of members of a collective to maintain an integrated and realistic connection to the people and events around them and respond and adapt to opportunities and threats in crisis situations. We use the case of the K2 tragedy that resulted in the deaths of 11 experienced climbers, as a generative case (Weick, 2007). The analysis of the case allows us to integrate complexity leadership (Uhl-Bien et al., 2007) and containment and social defense theories. In so doing, our theoretical model explains how loss of containment can result in a void in which collectives lose direction, alignment, and commitment (Drath et al., 2008) disabling people from adapting to challenging situations realistically and competently. Inspiration for our title ‘Touching the Void’ comes from the 1988 book by Joe Simpson, which recounts another near-fatal climbing disaster. Our analysis adds to previous research that has not unpacked the critical role of containment to adaptive (Heifetz and Laurie, 2001) and complexity leadership (Uhl-Bien et al., 2007). Moreover, by integrating explanations related to complexity leadership, containment and social defenses our analysis offers an alternative to the prevailing sensemaking (e.g., Brown et al., 2015; Frandsen et al., 2023; Mueller et al., 2023; van der Giessen et al., 2022) and other information-processing explanations by helping to

understand better how people's responses to novel, unprecedented circumstances are deeply connected to and reliant on the ways collectives develop to contain anxiety.

Undoubtedly, the case we outline is an exceptional one, significantly deviating from the more familiar hurdles encountered in typical organizational environments. However, there is increasing interest in understanding crisis and extreme contexts. For instance, Hällgren, Rouleau, & De Rond (2018) argue how research in extreme context can advance organization studies. This literature acknowledges that certain organizations encounter extraordinary circumstances with greater frequency, exemplified by entities like the military and medical institutions (Hannah et al., 2009; Paananen et al., 2022). The literature on extreme contexts draws attention to how contextual elements influence leadership dynamics by members of a collective—a domain that has received limited attention within the existing leadership studies (Porter and McLaughlin, 2006) or collective action (Kornberger et al., 2019). As such, our study contributes to the nascent literature on how leaders make decisions and sustain the capacity to act as a collective in extreme contexts.

Theoretical Background

Complexity Leadership in Extreme Contexts

Leadership can no longer simply be explained as an individual characteristic or difference, but rather is “depicted in various models as dyadic, shared, relational, strategic, global, and a complex social dynamic” (Avolio et al., 2009: 432). It has been argued that 20th century leadership models that were well suited to top-down, bureaucratic paradigms (Uhl-Bien et al., 2007) are less relevant for dealing with the complex, collaborative, cross-boundary, adaptive work they are increasingly engaged in (Heifetz and Linsky, 2002). Indeed, the traditional approach to leadership, based on entities, i.e., leaders, followers, and their shared goals, is often considered insufficient (Drath et al., 2008; Osborn et al., 2002). Instead, leadership from a holistic perspective is considered more appropriate. Leadership effectiveness is shaped by relationships among the parts, rather than the result of any individual element

(O'Connor and Quinn, 2004). Within an organization, leadership is “an emergent phenomenon within complex systems” (Hazy et al., 2007: 2) that can be exercised through any interaction, involving both top-down and bottom-up approaches (Drath et al., 2008).

Complexity Leadership Theory (CLT) is a leadership theory that adopts this holistic perspective. CLT implies that leadership is a measurable property of the collective rather than being solely observable in the behaviors exhibited by a single person designated as the “leader” (Hazy and Prottas, 2018: 325). The basic premise of CLT is that leadership practices should fit with the specific needs of the situation in which they operate. Hence, CLT stands out among other leadership theories for its particular focus on managing emergence in complex environments (Bäcklander, 2019). By embracing complexity leadership principles, leaders can enhance their ability to effectively guide collectives through uncertainty and change.

CLT as a theory of leadership for adaptability is especially suitable in extreme contexts that frequently encounter adaptive challenges. It identifies three leadership roles: operational, entrepreneurial, and enabling leadership (Uhl-Bien and Arena, 2018). Earlier studies referred to administrative, adaptive, and enabling leadership. Administrative leadership was relabeled to operational leadership by Uhl-Bien and Arena (2018) to avoid confusion with administrative roles. Adaptive leadership was relabeled to entrepreneurial leadership to better fit with the theoretical perspectives of organizational adaptability.

Operational leadership is concerned with leadership in formal frameworks that produces results (Uhl-Bien and Arena, 2018). This type of leadership approach is typically effective when the challenges faced by the collective have a definite stopping point, when the solution is reached, and that solution can be objectively judged as right or wrong (Grint, 2005). It represents the traditional mode of command-and-control leadership aimed at efficiency (Rosenhead et al., 2019). Leaders play a key role in setting clear directions and objectives and communicating this throughout the organization. Operational leadership (Uhl-Bien et al., 2007) emphasizes formalized structures for authority and decision-making, a focus on stability and

control, internal integration through clear goals and standardized processes (Mintzberg, 1979), planning and coordination of operations, and resource allocation and structuring of tasks (Uhl-Bien et al., 2007). Leadership often involves intentional influence of a designated leader over followers to channel and facilitate collective tasks, clarifying work to be completed (Grint, 2005) and clarifying roles and responsibilities (Osborn et al., 2002).

Entrepreneurial leadership is defined as “leadership that works to create new knowledge, skills, products and processes to sustain the future viability of the firm” (Uhl-Bien and Arena, 2018: 98). It can be considered a form of distributed leadership, created in the informal structures and systems of the organization and similar to bottom-up emergent dynamics within organizations (Hazy and Uhl-Bien, 2014). Here, leadership can emerge dynamically across diverse individuals shaped by the distinct contours of each circumstance. Entrepreneurial leaders communicate a compelling vision, involve team members in decision-making, and establish strategic priorities that align with the evolving context. Through collaboration, a learning culture, and transparent communication, leaders create a shared sense of purpose and empower individuals to adapt, grow, and work towards common goals. Adaptation may emerge in response to situations or problems with unpredictable outcomes and little agreement about the activities required for resolution (Heifetz and Laurie, 2001; Marion and Uhl-Bien, 2007; Uhl-Bien, 2021a; Uhl-Bien et al., 2007). Leadership may also include injecting adaptive tension to help motivate and coordinate the interactive dynamic (Uhl-Bien and Marion, 2009), this can be achieved by ensuring diversity of skills, preferences, and outlooks (Uhl-Bien et al., 2007) and seeding ideas, information, and other resources (Lichtenstein et al., 2006). This involves experiencing and observing the situation from multiple viewpoints, listening to dissenting voices and encouraging divergent perspectives on problems (Heifetz and Laurie, 2001). Previous work on complexity leadership (Lichtenstein and Plowman, 2009) has largely focused on the role of enabling leadership in managing entanglement of operational and entrepreneurial functions (Uhl-Bien et al., 2007).

Enabling leadership (Uhl-Bien et al., 2007) refers to “catalyzing” activities that bring together the enabling conditions (mechanisms and contexts) necessary for leadership to emerge and have effects. In terms of enabling adaptability, “engaging leadership is creating, engaging and protecting ‘adaptive space’ (Uhl-Bien and Arena, 2018) needed to nurture and sustain the adaptability process in organizations” (Uhl-Bien and Arena, 2018: 98). This involves enabling organizations and people to cope effectively with change and uncertainty.

In CLT, these three functions are intertwined, i.e., there is a dynamic relation between the formal top-down administrative forces of operational leadership functions and the informal adaptive emergent forces of entrepreneurial leadership functions. Enabling leadership helps collectives to cope with the coordination rhythms, or oscillations within leadership systems (Uhl-Bien et al., 2007). It facilitates the adaptive process and helps the transition between the operational and entrepreneurial leadership functions (Hazy and Uhl-Bien, 2014; Murphy et al., 2017; Uhl-Bien, 2021b).

When entrepreneurial leadership interacts with operational leadership the process of entanglement arises (Drath et al., 2008). One of the main roles of enabling leaders is to manage this entanglement process (Uhl-Bien et al., 2007), or tensions between potentially conflicting leadership activities and outcomes. These tensions must be engaged with in a climate of ‘conflicting’ and ‘connecting’ for adaptation to take place. The ‘conflicting’ stage is where problems arise, either internally from people, or externally from the wider environment. It is necessary to start the adaptive process. ‘Connecting’ is when a critical threshold is achieved by people towards a solution. In order for this adaptive process to work, a climate of trust and support, or psychological safety (Edmondson, 1999), is required (Uhl-Bien and Arena, 2018). Particularly in extreme contexts with high levels of stress and anxiety, such emotionally secure environments are crucial for facilitating effective adaptive processes. Studies have not yet empirically explored complexity leadership in the context of novel, unprecedented circumstances marked by elevated levels of anxiety, how the administrative functions can break

down, or why experienced professionals may fail to respond and adapt to prevent or mitigate impending crises. We posit that to address these questions it is beneficial to explore psychological safety and the ways collectives develop to contain anxiety.

Containment of Anxiety

Anxiety impacts the way people can think together and collaborate with each other. According to a Kleinian perspective, anxiety about one's very survival (Klein, 1940, 1946) stems from a primitive level formed in early childhood by the psychological separation of the helpless and dependent infant from their mother figure (Klein, 1959). These early experiences can result in two different states of mind that shape how we experience the world throughout life (i.e., paranoid-schizoid and depressive position).

First, people operating in the *paranoid-schizoid position* employ unconsciously defense mechanisms, such as *splitting* experiences into good and bad, projective identification, and idealization (Klein, 1940), to externalize experience and provide certainty and simplicity (Anastasis et al., 2023) when dealing with complex situations. For instance, in times of heightened anxiety, groups within organizations tend to view themselves positively while perceiving others as negative (Walsh et al., 2016). People operating from the paranoid-schizoid position struggle to engage in interpersonal relations, they feel defensive, persecuted, and lack flexible thinking (Anastasis et al., 2023).

Second, people in the *depressive position* experience themselves and others more holistically and are able “to tolerate complexity, assess reality from multiple perspectives, and understand realistic opportunities” (Krantz, 1997: 3). Acknowledging the complexity of differing viewpoints and emotions helps leaders and teams address conflicts with a more balanced perspective. Encouraging diverse viewpoints and valuing contributions from all team members can lead to more creative problem-solving and decision-making (Walsh et al., 2016). It can guide efforts to build stronger teams, improve communication, and can lead to a greater sense of unity and shared purpose. According to Walsh et al. (2016), the depressive position

can be attained by leaders who are capable of providing direction and simultaneously managing part of the group's anxiety. This containment provides the psychological space for emotions to be acknowledged and worked through, leading to solutions that do not depend on these defensive mechanisms.

However, there is a continuous threat of a collapse of the depressive mode and a tendency to return to a paranoid-schizoid way of functioning (Obholzer, 2019a). Particularly, increased anxiety triggers defensive mechanisms, potentially leading to a return to splitting (Anastasis et al., 2023; Obholzer, 2019a). This fluctuation, combined with the pressure to deviate from the more balanced mindset (the integrated depressive position) diminishes the ability to confront difficult realities, guilt, and empathy. Thus, it becomes imperative to sustain ongoing containment of anxieties to uphold the functional stability of the depressive cognitive state (Obholzer, 2019a).

How people function is not only dependent on their individual psyche but is also influenced by their surrounding environment. Social defenses have come to function as a means of strengthening individuals' defenses against the basic anxieties triggered within the work environment (Krantz, 2010). Social Defense Theory (Jaques, 1955; Long, 2006; Menzies, 1960) addresses this interplay between the individual's psychic defenses and organizational arrangements. Organizational arrangements encompass structures, processes, and cultures that impact how individuals handle their emotions. These arrangements, including role clarity, hierarchy, and positional authority, support individuals' defenses against anxieties and emotions within the organization. Organizational social structures and processes act as a container for painful experiences and emotions that organization and group memberships evoke. The significance of this "emotional container" was already acknowledged by Winnicott (1965) who highlighted the importance of a holding environment, a psychological space that allows for difficult emotions to be contained and integrated back into one's own experience rather than being projected externally. Heifetz and Laurie (2001) argue a "holding

environment,” provides a “safe” site to explore tensions, difficult experiences, and emotions. This containment is enhanced by developing ‘teams’ that accept collective responsibility and contribution, allowing anxieties to be voiced, and apparently irrational ideas to be valued and considered. Allowing questioning, hearing dissent, and not seeing difference as unacceptable are all important.

Social defenses influence the ability of people to function from the depressive position or paranoid-schizoid mode (Krantz, 2010). Social defenses can remove situations that cause anxiety-inducing activities or shield individuals from the outcomes of their actions (Krantz, 2010). However, social defenses can also constrain groups from working in a depressive position. For instance, groups preserve their belief that they are good by projecting their unwanted parts into distant groups (senior managers, the geographically separate, other professions) and into minorities.

The process of containment facilitates the transition from the fragmented and reality-denying paranoid-schizoid position to the integrated and thought-enabling depressive position. Organizations provide new sources of ‘containment’ for dealing with anxieties (Obholzer, 2019b). With elevated levels of stress, people tend to regress to the paranoid schizoid position unless the organization can provide sufficient containment to manage this stress.

The paranoid-schizoid position and containment of anxiety are established concepts from psychoanalytic theory and are still highly influential to inform and enrich our understanding of human behavior, emotions, and relationships. They can provide valuable perspectives of the ongoing change and adaptation that contemporary organizations face. For example, these concepts have been used to explain how, in times of extreme stress or threat, such as the global COVID pandemic, people may regress to the paranoid-schizoid position (Dodds, 2021; Mitroff and Kilmann, 2021). Furthermore, they have been deployed as a lens to explore other global challenges and societal transformations, for instance, the role of the German Government in the so-called migration crisis of 2015 (Gellwitzki and Houde, 2023), anti-immigration policy (Lee

and Bhuyan, 2019), the dynamics of war discourse as rooted in a paranoid-schizoid position (LaMothe, 2012; Levine, 2022), and understanding racialized encounters (e.g., Dennis, 2022; Lee and Bhuyan, 2019; Mintchev, 2018).

Paranoid-schizoid/depressive positions and containment of anxiety are highly relevant in a leadership context. The paranoid-schizoid position is observable among various national leaders and their supporters, for instance, in the USA, the strong animosity between Republicans and Democrats is driven by splitting (Mitroff and Kilmann, 2021). The use of emotional containment is vital for leadership in times of crisis, this was for example shown by the study of Sanfuentes, Valenzuela and Castillo (2021) into the Chilean miners' catastrophe.

Containment of anxiety plays a vital role in effective leadership in any organization. However, few studies have explored how this facilitates or obstructs the necessary adaptive processes for enabling leadership, particularly in challenging circumstances. Enabling leadership can confront complexity, address emotion-laden questions openly and honestly, and link and integrate issues to encourage people to employ reciprocal defensive strategies – those that involve managing experience more coherently (Krantz, 1997).

We formulate our research question as follows: *How do leadership practices that emerge in collectives to contain anxiety affect the ability to cope with uncertainty and adapt to changing conditions?*

We believe answering this research question will further our understanding of complexity leadership in the context of novel, unprecedented circumstances. Accordingly, this paper adopts a leadership view that is contextualized, whereby “leadership and its effectiveness, in large part, are dependent upon the context” (Osborn et al., 2002: 798), and we now introduce an extreme case context. In extreme cases, people are pushed to their limits, need to make quick decisions, and rapidly adapt to changing situations which helps evaluation of such situations (Aubry and Lièvre, 2010). Moreover, extreme contexts can intensify or attenuate issues (Hannah et al.,

2009), and as such provide researchers the opportunity to enhance their comprehension of certain phenomena (Pettigrew, 1990).

Case and methods

Case Selection

The K2 disaster stands as a pivotal case study for exploring the research question of how leadership practices in groups manage anxiety and adapt to change. This disaster, marked by extreme unpredictability in a more dangerous setting than Everest (Kayes, 2004; Tempest et al., 2007) underscores the rapidity with which conditions can deteriorate in high-risk environments. It demands an analysis of leadership under severe stress, where quick, decisive actions are vital in life-threatening situations. This event offers insights into how leaders contain collective anxiety, a critical factor in high-altitude mountaineering where fear can lead to catastrophic decisions. The necessity for swift adaptation to unforeseen events during the disaster highlights leadership's role in managing uncertainty. Moreover, the organic emergence of leadership based on expertise and situational factors in mountaineering, unlike structured organizational settings, sheds light on collective decision-making in extreme conditions (Hällgren et al., 2018). Examining the K2 disaster offers valuable lessons, particularly where traditional leadership models are inapplicable. It also delves into emotional aspects, illustrating how these factors influence leadership effectiveness. Therefore, the K2 disaster serves as a real-world example where leadership, decision-making, anxiety management, and adaptation are crucial for survival, providing rich insights for understanding leadership nuances in managing uncertainty and adapting under extreme pressure (Hällgren et al., 2018).

Case Background

In August 2008 11 experienced climbers lost their lives as part of a larger expedition attempting to summit K2, the world's second-highest mountain. Located on the border between Pakistan and China, K2 rises to 8 611 meters (28 250 feet) and was named K2 because it was the second peak to be surveyed in the Karakoram Range. Each year, typically between June and

August, a window of relatively stable weather provides climbers with the opportunity to attempt the summit. High-altitude mountaineering tends to be carried out in a form of climbing known as 'siege-style' (Sale, 2011). This involves setting up a fixed line of ropes and stocked camps along the mountain route. These can be accessed at the climbers' convenience. Climbers and their porters travel up and down the route several times in order to fix ropes and to set up camps. In contrast, 'Alpine-style' climbers carry all their food, shelter and equipment with them and usually attempt the route only once in an intense continuous push.

K2 is often referred to as the 'Savage Mountain' due to the sustained technical difficulty of the climb and rapidly changing weather conditions. The face of the mountain is characterized by 45+ degree angles with a rocky and icy surface. Leaving Camp IV, climbers face a narrow couloir of rock and ice. The Serac, a massive overhanging glacier, towers over the most dangerous sections called the Bottleneck, a narrow 90-meter vertical passage, and the Traverse, a 100-meter section running horizontally alongside the foot of the Serac. A collapse of the Serac in 2008 resulted in a series of ice falls over hours and is the reason this section is feared.

At 13 000 feet (3 658 meters) there are roughly 40% fewer oxygen molecules per breath compared to sea level. In order to properly oxygenate the body, a climber's breathing rate (even while at rest) must increase. Since the amount of oxygen required for activity is the same, the body must adjust to having less oxygen. Continuing to higher altitudes without proper acclimatization can lead to potentially serious, even life-threatening conditions such as Acute Mountain Sickness (AMS, characterized by symptoms such as headaches, dizziness, fatigue, and nausea), High-Altitude Pulmonary Edema (HAPE - fluid build-up in the lungs) and High-Altitude Cerebral Edema (HACE - swelling of brain tissue from fluid leakage). Climbers operate under conditions of extreme physical exertion and constant danger, where judgement is impaired by oxygen deficiency. An extended stay above 27 000 feet without supplementary oxygen will result in loss of endurance, deterioration of bodily functions, loss of consciousness, and, ultimately, death.

Data Elicitation

For this research we used a wide range of sources, including data obtained from interviews with the survivors. 18 interviews were conducted with the climbers who set out from Camp IV. A narrative interview technique (e.g., Riesman, 1993) was employed to extract detailed information in order to explain events and people's response to these. The technique also allowed us to place a greater emphasis on events that were deemed relevant by the narrative-teller. Extensive data were obtained from non-traditional sources (Buchanan and Denyer, 2013). For example, we accessed unique and extensive data by utilizing real-time video footage captured through helmet cameras carried by climbers during the journey. In total 192 clips of footage were analyzed, lasting from 40 seconds to several minutes. Crucially, most of the video footage was taken on the final ascent after Camp IV. The video data was supplemented with photographs that help provide a visual map of the entire expedition. Studying extreme contexts and crises pose significant challenges to data collection and researchers have used fiction as an alternative tool (Buchanan and Hällgren, 2019). Our video data is the next best thing to obtaining firsthand information from leaders, which is "nearly impossible" in the midst of a crisis (Campbell et al., 2010: 2).

Another unique data source was access to blogs (e.g., Rice, n.d.; Zerain, n.d.) that expedition members used to provide real-time updates on the climb and the disaster. This provided firsthand information during the extreme event. After the incident early accounts were produced by Kodas (2008) and Power (2008) in magazines such as *Outside* and *Men's Journal*. Later, more detailed accounts were turned into books, most notably those written by Bowley (2010), Van Rooijen (2010), Falvey & Gyalje Sherpa (2013), O'Brien (2012) and Zuckerman and Padoan (2012). These books intricately depict the pivotal journey, frequently presenting the accounts of the interviewed climbers themselves. Documentaries such as "The Summit" (Ryan, 2013) have also chronicled the event. All these sources were regarded as important sources of data and facilitated triangulation (Buchanan and Denyer, 2013).

Data Analysis

NVIVO qualitative data analysis software was used to extract and code data from the interviews, books, news, interviews, documentaries, real-time footage, and blogs. Two researchers, working independently, analyzed all the data. The researchers then compared and contrasted their analyses and deliberated differences, which were minimal. The two researchers then entered the coded data into a timeline of the unfolding incident to produce a master narrative. This master narrative served as an explanation of key events which is high on accuracy but low on simplicity and generality (Langley, 1999). The analysis of the master narrative then proceeded by means of temporal decomposition of the timeline into episodes (Langley, 1999), defined by the dimensions of extreme contexts: location in time; magnitude of consequences; probability of consequences; physical proximity; and form of threat (Hannah et al., 2009). These episodes serve as units of analysis for a comparison of processual dynamics in leadership. We have labelled the episodes as follows:

Episode one: Acclimatization and Preparation

Episode two: Breaking Trail

Episode three: Descending

Episode four: Rescue

As an integral part of this study, we laid out the wealth of qualitative data in a graphical format: visual mapping (Langley, 1999). We mobilized several dimensions for the purpose of visual data reduction. In this respect, we paid particularly attention to contextual intensifiers and attenuators (Hannah et al., 2009). Intensifiers indicated events that increased the time spent at high-altitude and exacerbated the complexity of climbing. For example, a cut rope poses a novel, unexpected, challenge to the collective. Attenuators are factors that reduce the level of extremeness, such as psychological, social, and organizational resources (Hannah et al., 2009).

Psychological resources: The predominant collective emotional state of a team can lessen the impact of unexpected challenges. A positive emotional climate can increase resilience and adaptability when facing unexpected challenges like a cut rope.

Social resources: Well-defined boundaries can serve as a social resource. Boundaries are the demarcations that separate different teams, or even individuals within a team. They can eliminate confusion, reduce conflict, and in turn, lessen the risk or "extremeness" of situations. Similar to boundaries but at a more granular level, role definition involves delineating the specific duties, responsibilities, and expectations for each individual within a given boundary. This aids in ensuring that the right psychological resources are deployed. For instance, when everyone understands their role in a high-stress situation, it becomes easier to allocate tasks based on skills and capabilities, thereby reducing the complexity of the challenge and acting as an attenuator of extremeness.

Organizational Resources: A well-defined chain of authority can simplify decision-making in complex scenarios, acting as an attenuator by reducing the level of risk or extremity.

We have applied the dimensions to the process flowchart (see Figure 2 in the Appendix) that we developed, although the process of visual mapping constituted an intermediary step towards theorizing from process data (Langley, 1999).

The K2 disaster

Episode one: Acclimatization and Preparation

In late June 2008, the population at Base Camp has swelled to around 120 climbers, consisting of commercial mountaineers, Low- (LAP) and High-Altitude Porters (HAP) and Sherpas (an ethnic group in eastern Nepal). The climbers consisted of American, French, Norwegian, Serbian, and South Korean teams, along with their Sherpas from Nepal, an international team sponsored by the Dutch enterprise Norit, and Pakistani HAPs. Furthermore, unaffiliated climbers, consisting of a lone Spaniard and an Italian duo, also endeavored to reach the summit.

Base Camp is located around two miles from the base of K2, clear from avalanches and rockfalls. Among the population at Base Camp, eight organized expeditions turn out to commence their summit bid together. The climbers involved have extensive high-altitude experience, compared to the ‘client-like’ climbers more commonly seen at Everest.

The multiple expeditions operate largely independently of each other. Most climbers stay in close proximity to other mountaineers associated with their expedition, and the composition of each team is largely defined by their country of origin. They each have a nominal expedition leader, responsible for organizing the safe arrival of all expedition members to Base Camp, as well as coordinating the phase of preparing the route(s) up to Camp IV, independently from other groups. The preparatory work for the climb involves setting up and stocking Camps I – IV which climbers use for their ascent. Mountaineers commence a stock run in the morning, make the climbing route accessible for others, stock camps, descend and recover before nightfall. These routine climbs also allow them to acclimatize, increasing the time a climber can spend beyond 27 000 feet.

There are clearly distinguishable roles for nominated expedition leaders, mountaineers, and support climbers. The role of HAPs and Sherpas is solely to acclimatize and support each expedition in preparing the route up to Camp IV. Expedition leaders agree on the phase of preparing the route up to the summit, and individual expeditions define a time plan for acclimatization. However, team leaders engage in much discussion about how to prepare the route to the summit, resulting in frequent conflict between nominated leaders. For example, Wilco van Rooijen, who appeared to be the most ‘vocal’ of all nominated leaders becomes increasingly frustrated about what he believes to be ill-prepared expeditions. His reply to one of the participating expedition leaders: *‘You did not bring any rope. How do you want to climb this f***ing mountain? It is really irresponsible!’* (Video footage, Wilco van Rooijen).

The period of acclimatization pays off, and the route to Camp IV is being ‘fixed’. The weather, though, temporarily prevents a summit bid throughout July.

'...actually we said at the beginning we won't climb in August but we had to wait for three weeks in July so we said finally this is our last push, so okay we would do it in August.' (Interview, Wilco van Rooijen)

Episode two: Breaking Trail

The final section of K2 is the most technically demanding and most dangerous part of the climb, at an altitude above 27 000 feet. A temporary and hastily assembled structure of an 'Advance Team' is formed to 'break' the path and facilitate the climb through the most difficult section of K2, the Bottleneck and Traverse under the massive Serac ice overhang.

The nominated leader of the Advance Team, Shaheen Baig, falls ill and the lead is taken over by the South Korean expedition leader. The South Korean group argue that they should form the Advance Team because they have the best equipment and experience. After much debate, the Advance Team is formed primarily from support climbers, HAPs and Sherpas.

They set off in the early hours of 1 August 2008, already one hour late. However, they start fixing the ropes too early on the Shoulder section leading towards the Bottleneck. These changes to the plan are being noticed by some of the climbers following the Advance team:

'[I] saw the ropes on the very flat part and that is not exactly what we said we will do. But I think, okay, because our team took, I think 400 meters of rope, that is the only rope which would be taken up. So, I thought some other team must have taken more ropes with them and decided it is okay to start fixing. So, I thought okay, it is okay, it is even safer.'

(Interview, Jelle Straleman)

At around 10:00 the bulk of the climbers have caught up with the Advance Team. It comes to a standstill as they have run out of rope to fix the remaining sections through the Bottleneck and Traverse. The Norwegian team initiate activities on behalf of the group by bringing, cutting, and repositioning the ropes.

"We were descending a little bit, taking all the ropes which were already fixed lower down. We were giving them to one of the Nepalese boys to take higher up. This is how

fixing the lower part of the Bottleneck took much longer than expected.” (Interview, Cas van de Gevel)

The choice to sever the rope connecting the climbers at the Shoulder and relocate it to more elevated sections of the Bottleneck and Traverse exacted an additional time cost of 2.5 hours. During this interval, a disastrous occurrence unfolded. Dren Mandic, displaying an act of camaraderie, chose to detach himself from the secured rope line. This act aimed to provide a passage for a fellow climber, Cecilie Skog. However, it is paramount to note that this maneuver, while well-intentioned, appears to have had unintended repercussions. The precarious nature of the terrain in the Bottleneck proved unforgiving, causing Dren to lose his footing and commence an uncontrollable descent along the rocky surface.

Some mountaineers who have returned to Camp IV observe the tragedy and make their way to the Serbian climber. They short-rope the body and slide it down the lower section of the Bottleneck. Jehan Baig, possibly suffering under high-altitude sickness, stumbles, slides, and the end of the rope wraps around Frederik Strang’s right leg. Frederik screams at him to let go. He does so, and slides down the Shoulder, making no attempt to arrest his fall with his crampons and ice axe.

Two mountaineers have died, and they are late by two hours. At such an altitude, the chance of recovering that much lost time is minimal. Alberto Zerain, who was climbing K2 alone, Alpine style, reaches the summit at around 15:30 on 1 August. The rest of the climbers are a long way behind him.

‘I did not find it difficult on the descent... but I started to feel the snow instability. So that situation made me think again about the people who were still going up because I knew that if they were lucky enough to reach the summit, they would find it difficult to make the descent. Anyway, there was nothing I could do; I could not oblige anyone to do what I thought.’ (Interview, Alberto Zerain.)

Episode three: Descending

Initially it was anticipated that the summit had to be reached by 14:00 to leave enough time to descend in relative safety. The last climbers to leave the summit do so at around 19:30, and it is getting dark. Some climbers turn around and make their way into the mouth of the Traverse, where the line of fixed rope starts. Sherpas try to keep the mountaineers together, but to no avail. Some climbers wander off alone or in pairs or threes.

The two leaders of the South Korean Team progress down into the Snowfield, leaving the rest of the expedition in the hands of their allocated Sherpas. Wilco comments:

'...when you go back from the summit, then everybody is thinking now it is just a routine job, we go back to the last part of the ropes, we connect to the ropes, follow the lines and we are back in Camp IV. And everybody knows also that if somebody collapses you can't do anything for him, so there is something of a gentleman's agreement that you go as fast as possible back to Camp IV, because the faster you are the more safe you are...'

(Interview, Wilco van Rooijen)

Wilco van Rooijen, Gerard McDonnell, Marco Confortola, and Karim Meherban fail to find their way back to the beginning of the Traverse. They decide to bivouac, without sleeping bags, spare oxygen, or food. It is believed that Karim develops a serious condition of high-altitude sickness, detaches himself from the 'huddle' and wanders straight off the Serac in the early hours of 2 August.

Jumik Bhote, a support climber attached to the South Korean team, makes it back with three of his expedition members to the beginning of the ropes. They clip themselves in, but due to an icefall or a slip from one of the mountaineers, they rip out parts of the fixed rope. One South Korean fails to halt his slide. The remaining three, Jumik and two further South Koreans, remain entangled close to the entrance to the Traverse.

Further down, Lars Nessa, Cecile Skog and Rolf Bae make their way through the Traverse, when a massive icefall kills Rolf instantly and cuts the rope. Lars has brought with

him some emergency rope to bridge the gap. The following climbers, unaware of the massive icefall, make their way down, most fail to notice the rope that Lars has fixed:

“...we left our rope there and hoped that some of the climbers after us could use it.... we knew they would be far behind us in the darkness and probably exhausted after a long day. We left it there and hoped that they would understand that this is rope. This is a safe rope you can use to pass this, the rest of the crevasse. But I don't think many used it.”

(Interview, Lars Nessa)

They switch to a mode of free climbing, without the assistance of a fixed rope but only using ice axes and crampons. Among those climbers free climbing their way through the most treacherous section of K2 is Hugues d'Aubarede. Tragically, he slides down the sharp angle of the Traverse and disappears.

Climbers at Camp IV struggle to maintain contact with those separated and stranded further up. Some mountaineers did not carry radios, other radios ceased working at such an altitude, frequencies were switched, and some expeditions fell back to talking in their own language:

‘Other teams didn't have quite as regular radio communications with their team. There was no common frequency really being used. Like we talked about, the cohesiveness that we had discussed in terms of teamwork and all that, unraveled pretty quickly on the descent.’ (Interview, Eric Meyer)

Episode four: Rescue

After 24+ hours the condition of those still in the Danger Zone is deteriorating rapidly. Exhaustion and dehydration impair decision-making. At first light on 2 August, those remaining climbers who ‘huddled’ make their way into the Traverse:

“When I was going downwards...,I looked to my right and what I saw, it is really disgusting picture, but there were climbers hanging beneath each other on a rope. They didn't scream, but they were still alive, and the last guy asked me if I could get him some

help. I didn't have a clue what happened...I was really thinking where those climbers are coming from and I was really, really confused but finally to the last guy I said, "I will get some help if I am getting down...." (Interview, Wilco van Rooijen)

Marco Confortola and Gerard McDonnell also encounter the stricken climbers around 45 minutes later. They are suffering under the prolonged exposure at that altitude. They manage to free Jumik Bhote but not the other two.

The South Korean team leader, Mr. Kim, launches a rescue effort.

'The South Koreans send up some of their Sherpas. It's not a question of voluntary work - its pointing with the entire hand, "This is what you are going to do and go up and save them". So those Sherpas go up.' (Interview, Frederik Strang)

The rescue mission was mandated: *'We had no choice. We had to follow their instructions. They paid us, and they acted like they owned our lives.'* (Interview with 'Little' Pasang Lama, (Ryan, 2013).

Lower down, rescue efforts are started, as some climbers have already made their way back. A series of massive icefalls sweeps away the rescuer 'Big' Pasang Bhote as well as those he intended to rescue: his cousin Jumik Bhote (who was freed by Gerard McDonnell) as well as McDonnell and the two entangled South Koreans. The death toll has now reached 11 people.

Complexity Leadership, Containment and Collective Outcomes in the K2 Disaster

Episode one is consistent with mostly operational leadership. Team members identified with leaders as the embodiment of the summit mission. The expedition's shared purpose was broken down into manageable tasks, defined by the nominated leader(s). Risks were taken by leader(s) (e.g., which strategy to adopt) and the nominated leader(s) created authority structures, clearly distinguishable roles related to tasks, delegated those tasks, and coordinated resources to prepare the route up to Camp IV, through well-established and consistent processes and shared professional principles.

There is also evidence of entrepreneurial leadership; the teams accept collective responsibility and contribution, as illustrated by Chris Klinke:

'There was a team meeting at Base Camp to decide how we were going to move up the mountain. We all agreed that in the next weather window we would climb as a group and coordinate our efforts. So, it wasn't seven separate teams making the attempt, we were trying to act as one team moving up the mountain. We each donated different equipment, we selected roles and we decided who was going to fix ropes from Camp IV to the summit through the Bottleneck.' (Interview, Chris Klinke)

Climbers are operating from a depressive position and anxiety is kept in check by appropriate dependency on the leader(s), a sense of unity, self-efficacy created by the experience of the climbers, and by clear processes and responsibilities. Whilst the emotional dynamics were managed by formal administrative 'containers' into which psychological difficulties could be projected, the expedition is formed from many teams who came independently to K2 and who shared a need to work together. However, as becomes clear from the following episodes, there is a fantasy that they are one single group (or well-functioning team) as they set out. The expedition has a unity of effort, the coordination and cooperation of all the teams toward a summit attempt. However, there was no unity of command because none of the nominated leaders had the requisite authority to direct all the teams employed in pursuit of its common purpose. As this episode unfolds, conflicts between nominated leaders regarding the plan further weaken the operational leadership role.

In the early episodes, the K2 expedition witnessed the emergence of collaborative decision-making and a shared leadership ethos, reflecting a dynamic distribution of leadership roles tethered to individuals' expertise, situational acumen, and pressing needs - underscoring the dynamic facet of leadership in extraordinary circumstances.

Episode two involved a stay of 16 hours in the 'Death Zone', with some climbers suffering under the effects of dehydration and exhaustion and the technical complexity through

the Bottleneck and Traverse. An enabling type of leadership is seen where adaptability is central, climbers are faced with these continuous external problems and, through problem solving and improvisation, overcome the challenges in this episode. Some form of collective approach and shared contribution was seen, sharing resources and effort in reaching the original set goal to summit.

There are also ‘conflicting’ processes caused by internal problems, when Shaheen Baig, the nominated leader of the Advance team for the final ascent, is feeling unwell and stayed in his tent. There appears to be no handover from the leader to anyone else. The anticipation for an entrepreneurial leader is to foster transparent communication to establish a sense of shared purpose and dedication, yet this clearly disintegrated. Baig is described later as ‘*not communicating*’, not as ‘*unable to communicate*’ (although that might be a translation problem). Until this point, dependency on a formal leader had helped contain anxiety in the group. The group members were anxious to appoint a suitable person to lead. The Dutch climbing leader Pemba temporarily took over from Shaheen. However, the South Korean expedition claimed his climbing leader should be the managing leader, even though they ‘*hadn’t cared for the plan discussed at the meeting.*’ It was difficult for self and mutual authority to be taken and given because there was no formal authorization process. The South Korean group set themselves apart from the others by saying they should form the Advance Team. Pemba and others suggest the Koreans are ‘*the problem*’. This splitting provides an opportunity for the whole group to set aside anxiety whilst the ‘outsiders’ are dealt with. This illustrates how social defense mechanisms were activated to manage anxiety, but the depressive position is under threat and teams show tendencies of the paranoid-schizoid mind.

Each of the sub-teams that form the 32-strong summit group has reference back to the larger teams they represent. They also stay in sub-groups. Wilco van Rooijen refers to ‘*not everyone...*’ making it clear they were in smaller teams within the whole, and Chris Klinke suggests that there were ‘*seven separate groups.*’ Therefore, the expedition was acting as one

group, but the psychological survival groups were seven sub-groups. The Advance Team comprised predominantly HAPs and Sherpas who had to shift from the role initially assigned to them and the one they were paid to do - support and rope fixer - to trail breaker. The Advance Team is perceived '*to be in charge*', yet the lack of rope was attributed to their '*laziness*', so their authority was undermined. This illustrates the further breakdown of the structures, processes, and cultures needed to provide a holding environment. The different challenges require a move towards a more entrepreneurial leadership role of creativity and problem solving but this was not achieved due to the failure of group cohesiveness.

As the incident unfolded the group denied that there was a problem. Wilco and Pemba join forces to convince people '*it was their day.*' The group maintains the illusion it is working as a team, but it is a non-working group in which the work task is not being achieved and is redefined into something more manageable. The data show that the group continuously refer to the task as 'make the final ascent', yet the original task was to 'make the final ascent and return safely to Camp IV.' The accidents do not appear to deter the group from the goal. When Dren slips, Gerard immediately asked '*Do we have time enough to reach the summit? Are we not too late?*' Pemba said '*No, no we can just reach the summit. There is time enough...*' (Interview with Wilco van Rooijen, Ryan, 2013).

Only two people recognized the potential for a disaster. Zerain, the lone climber, anticipated an impending crisis, but he was not part of the group. He could not strongly articulate his view that they should abort the task, instead he says, '*Be careful on the decent... think it over, think it over.*' Staleman also acknowledged that they would have to descend in the dark but says, '*it's everybody's own decision.*' The data suggest that by this stage people in a group begin to work on the assumption there is no reality to the group. The only reality to be considered is that of the individual. The emphasis shifted from group to individual decisions. There are increased levels of concern for survival and self-protection, illustrating the shift away from the depressive position needed to sustain the containing and holding environment. Some

members of the group surrender authority to some higher force, so didn't have to do the real task. For example, Lars suggests some '*People just stopped climbing and just stood waiting for something to happen.*' Other climbers took individual initiative and unhooked themselves from the line to make dangerous solo attempts to get past the slow pace.

Prior to reaching the summit, mountaineers are part of the collective team effort to ascend. Commitment to the team is in line with a common goal. However, these structures, already fragmented as the climbing groups lose contact with each other on the way up, become redundant once their goal is accomplished and each individual is driven to descend safely as quickly as possible. The "I" becomes a predominant factor, driven primarily by personal survival.

Thus, by Episode three, in the middle of the night, no single individual or responsible authoritative group was looking at the whole picture and the lateness and escalating risk was disregarded. For many of the Advance Team, they had fulfilled their redefined mission: the summit. No one had the authority to say 'stop', the situation was now too dangerous, and the group too disjointed. The level of anxiety generated by the task and group/organization experience overwhelmed the group's capacity to work on the task of descending the mountain. The loss of containment results in inability to deal effectively with the uncertainty and change. The climbers descend, having spent a longer time than expected in the Death Zone. With the probability of suffering high-altitude sickness increasing considerably, individuals sought to contain anxiety by finding a nurturing pair to provide hope and a way down the mountain. The collective fragments and the smaller groups consist in most cases of two or three remaining climbers belonging to their original expedition.

While some adaptive responses are seen by use of improvisation (e.g., shifting to different climbing modes), adaptive ability is being affected by the loss of organizational resources, particularly the issues around radio communication, which is key in effective entrepreneurial

leadership. By Episode four the problem had become critical and the nominated expedition resorted to the exercising of authority to mount a dangerous rescue mission.

Discussion and contributions

The research question: “*How do leadership practices that emerge in collectives to contain anxiety affect the ability to cope with uncertainty and adapt to changing conditions?*” has been extensively explored in this paper.

The findings of the research underscore the critical role of containment processes in shaping collective outcomes. Collectives, engaged in relatively routine activity, can suddenly encounter novel, unprecedented challenges. Paradoxically, the very conditions that enable a group to adapt to novel, unprecedented challenges also generate anxiety and trigger defensive responses that impede the required collaboration.

The paper identifies the delicate balance between operational and entrepreneurial leadership, and how the transition between the two can trigger defensive responses that hinder collaboration. It emphasizes that collectives engaged in routine tasks may struggle when confronted with novel challenges due to defensive reactions triggered by anxiety. The interplay between leadership styles and the loss of containment as anxiety escalates over time is visualized in Figure 1.

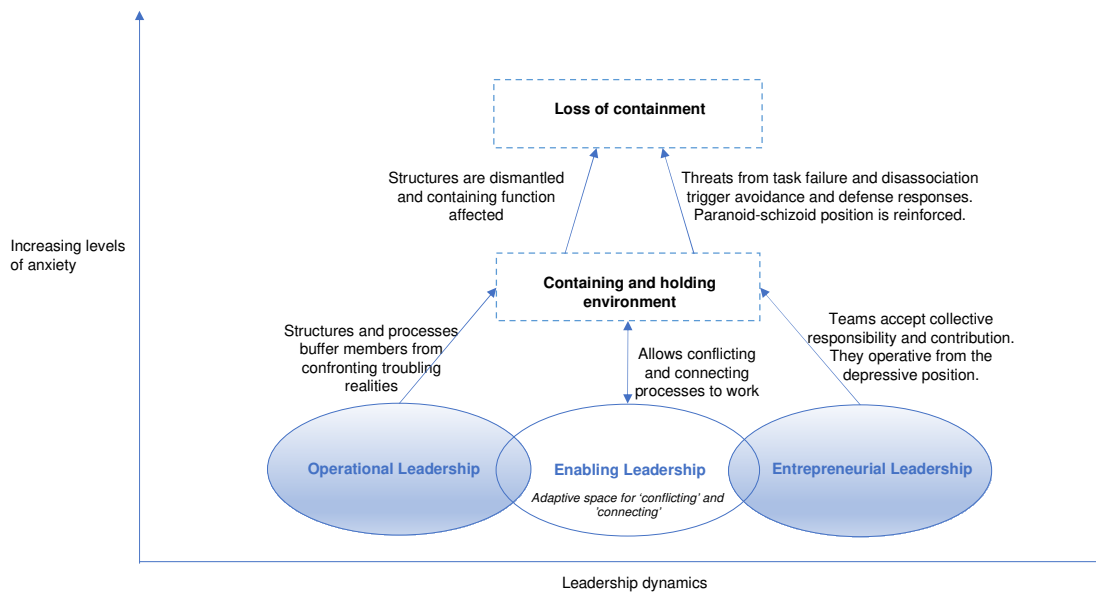


Figure 1: Complexity leadership and the loss of containment

Operational leadership helps to buffer members from confronting troubling realities and the challenges of their work. Hierarchy confers responsibility and allows work to be undertaken on behalf of the collective. These structures provide sufficient containment of anxiety for work to be possible and stability to be maintained. Entrepreneurial leadership allows for adaptation to deal with uncertainty, with groups collaborating towards resolving any problems faced.

As a result, groups facing an adaptive challenge oscillate between the task (climb a mountain) and the group survival task (maintain sufficient group cohesion without endangering self-identities). These ‘conflicting’ processes are successfully managed by enabling leadership which is made possible by a strong containing and holding environment (Uhl-Bien and Arena, 2018).

With increasing levels of uncertainty and anxiety however, dynamics change. As operational leadership becomes unsuitable for the adaptive challenges faced, structures are dismantled, and the containing function of the arrangements is sacrificed (Krantz, 1997). Adaptation challenges people with the threats arising from disorientation, vulnerability, shame, exposure, and disassociation (Krantz, 1997). If the collective mirrors unconscious processes due to its divisions and inconsistent, variable, and non-rational processes, as can be seen in the

K2 expedition, then more primitive fears associated with very early experiences of annihilation and dissolution will be stimulated and the paranoid-schizoid position of members will be reinforced. Instead of problem-solving, creativity, and collaboration, the task of managing the emotional dynamics generated by the task and group/organization experience overwhelmed the group's capacity to work. The loss of containment as a result creates an impediment for effective leadership.

Our results extend previous work on enabling leadership, which is said to help collectives to cope with the entanglement (Uhl-Bien et al., 2007) of top-down, hierarchical dynamics and emergent complex adaptive systems (Uhl-Bien, 2021b; Uhl-Bien and Marion, 2009). These twin functions of leadership are both contradictory and complementary (Murphy et al., 2017). That is, operational and entrepreneurial functions are interdependent and mutually enabling and a constituent of one another (Farjoun, 2010). Thus, operational leadership creates the structures that both enable as well as constrain the adaptive actions of individuals and collectives (Murphy et al., 2017). Thus far, the existing literature has underexplored the critical function of enabling leadership in dealing with emotional dynamics in the system.

The shift to entrepreneurial leadership presents its own challenges and anxieties that require new containment practices. It can trigger various anxieties that were previously contained, only to be dislodged by the new circumstances. As change unfolds, the very nature of change stimulates some anxieties while introducing others due to the unsettling and unfamiliar conditions. In response, it becomes crucial to establish new containment practices and holding environments that possess the capacity to withstand the presence of potentially paralyzing anxieties and intense emotional distress. Moreover, it requires a contribution of group members which is realistic, competent, and creative rather than externalizing unwanted parts and perceiving the environment as persecutory. Vince (2002) refers to this shift as the 'strategic moment' when emotions are held and worked through and compares this with 'willing

ignorance', where emotions are ignored and sent underground and disrupt the organization's capability for systemic learning.

These containment practices take on a central role in enabling individuals to function from a depressive position. Just as organizations are actively seeking ways to strike a balance between administrative routines and adaptive strategies, they must concurrently explore effective methods of managing and containing anxiety. By establishing such practices, organizations create a foundation for greater resilience and adaptability.

Furthermore, this paper delved into the intricate and challenging realm of leadership in contexts that can be described as extreme. Such contexts may be characterized by high-stakes decision-making, intense pressure, or situations where the margin for error is remarkably thin. In these environments, various factors can serve to either amplify or mitigate the level of extremeness experienced. Drawing on previous research by Hannah et al. (2009), the paper identified certain factors that can attenuate, or lessen, the sense of extremeness including emotional state, role definition, clear boundaries, and chain of authority. These factors work in ways that enhance the team's overall capacity to respond effectively to changing circumstances.

The paper also made a compelling observation through the analysis of the K2 case, a real-world example that offered valuable insight. It was found that these attenuating factors are not static; their contribution can indeed diminish over time. For instance, at first, strong team cohesion acted as a social attenuator, fostering collaboration, but in the face of individual egos and summit fever, team cohesion waned, thus losing its attenuating effect.

Conversely, certain factors may actually become amplified, leading to overconfidence. This psychological attenuator can be a double-edged sword, it empowers teams with confidence to take decisive action, yet simultaneously risks fostering an unrealistic assessment of the extremeness of the situation.

The consequence of these shifting dynamics can be profound. A failure to accurately assess the level of extremeness may lead to a disconnect between the situation's demands and

the adaptive leadership response. The paper underscored the need for a nuanced understanding of these dynamics, emphasizing that leadership in extreme contexts is far from one-dimensional. It requires a constant recalibration of attitudes and strategies, balancing confidence with caution, and drawing upon the collective strength and wisdom of the team to navigate the complexities and uncertainties inherent in extreme environments.

Complexity Leadership Theory serves as a conceptual framework that sheds light on how leadership operates within intricate and ever-changing settings. Under increased level of anxiety, a loss of containment could lead to ineffective leadership. The successful outcome of the climbers' collective endeavor—achieving the summit safely and returning—hinged upon their collaborative anxiety management. Although this paper looked at the extreme context of climbing K2, there are situations in organizations of all types that require effective leadership to contain anxiety in order to cope with uncertainty and adapt to changing conditions.

The findings presented hold valuable lessons for the workplace, offering insights into how the processes of containing anxiety can impact collective outcomes. Here are some key lessons that can be applied in a workplace context.

Balancing Leadership Practices. The research underscores the importance of striking a balance between operational and entrepreneurial leadership practices within the workplace. Leaders should discern when to rely on established structures and processes (operational leadership) and when to encourage creative problem-solving and adaptability (entrepreneurial leadership) to effectively address the diverse array of challenges that arise.

Achieving the right balance is a challenging endeavor. It does not only require leaders to be able to adopt both practices but to effectively transition between the practices. Organizations need to create and embed arrangements to allow a culture of collaborative work within their traditional structure to enable both operational and entrepreneurial leadership. Moreover, the transition between the different leadership practices can trigger anxiety and defensive responses which makes it difficult to maintain collaboration. Yet, even in the face of adversity and shifting

or emergent goals, leadership should nurture an environment that encourages collaboration. A culture of collaboration is essential to generate a sense of community that allows for managing tensions and uncertainty by curbing individual and collective anxieties that are inherently intertwined with change.

Recognizing emotional dynamics and creating effective containment practices. The research highlights the significant impact of group emotional dynamics on collective responses. In the K2 case, much of the disaster was because the dissolution of the group mindset led to the individualized mindset on the descent.

Effective containment practices are crucial for managing anxiety and emotional distress. In workplace settings, managers and leaders should be attuned to group emotional reactions during periods of change and establish a climate of group psychological safety, characterized by interpersonal trust and mutual respect, where group members want to work together and trust other's intentions. This will encourage open expression of concerns, where group members are confident to be themselves and speak up, because there is a shared belief that the team is safe place. Leaders and managers can enhance group emotional support by open communication, encouraging an open dialogue on both positive and challenging topics. However, it should be recognized that stressful periods are a reality and that these cannot be avoided, but managers should be bold in acknowledging and accommodating these to minimize the negative effects.

Incorporating these lessons into the workplace can promote a culture of resilience, adaptability, and effective collaboration. By understanding the dynamics of anxiety containment and their impact on collective outcomes, organizations can navigate change and uncertainty more successfully while fostering a supportive and psychologically safe environment.

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Appendix

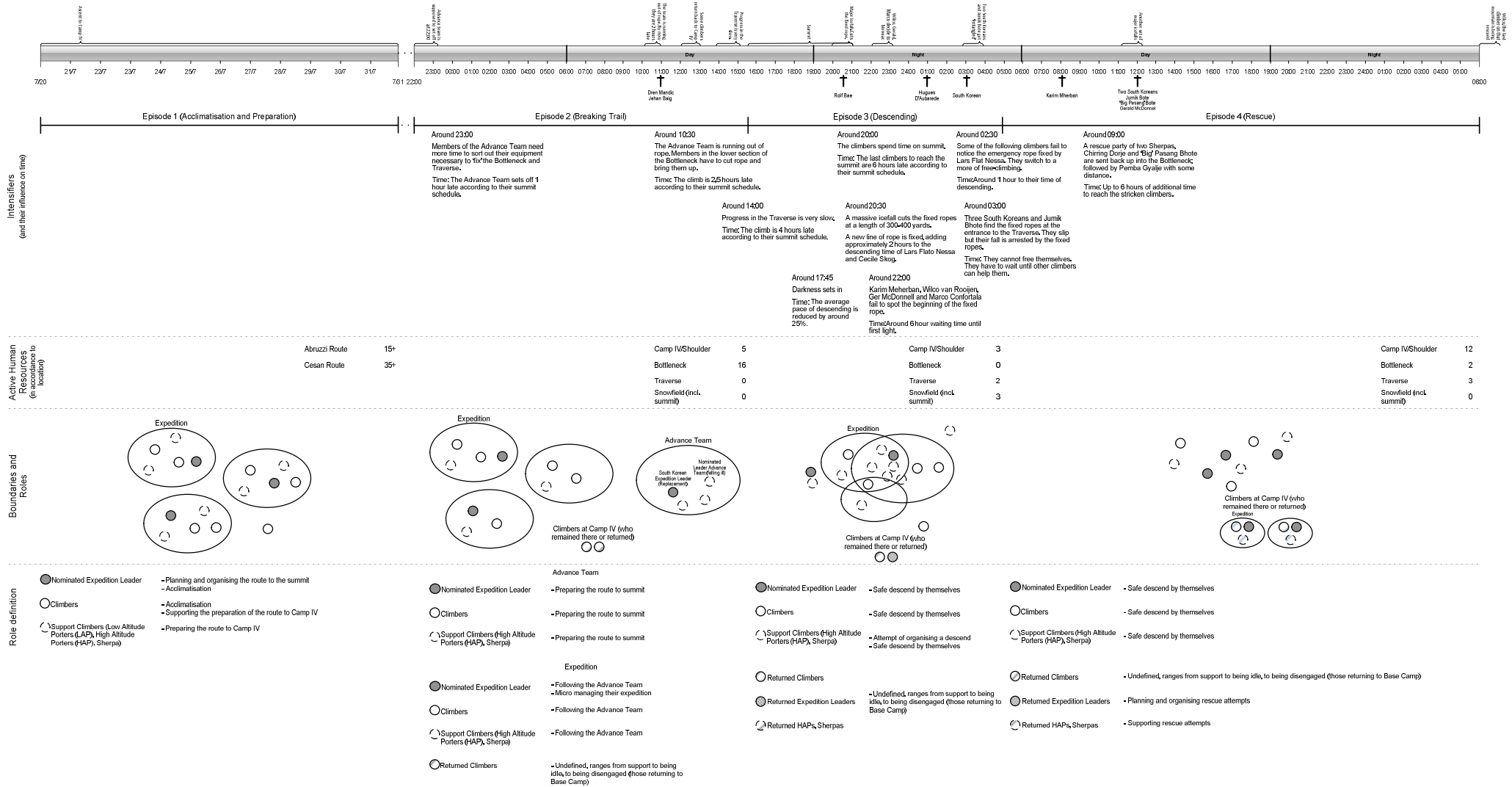


Figure 2. Flowchart of K2 events

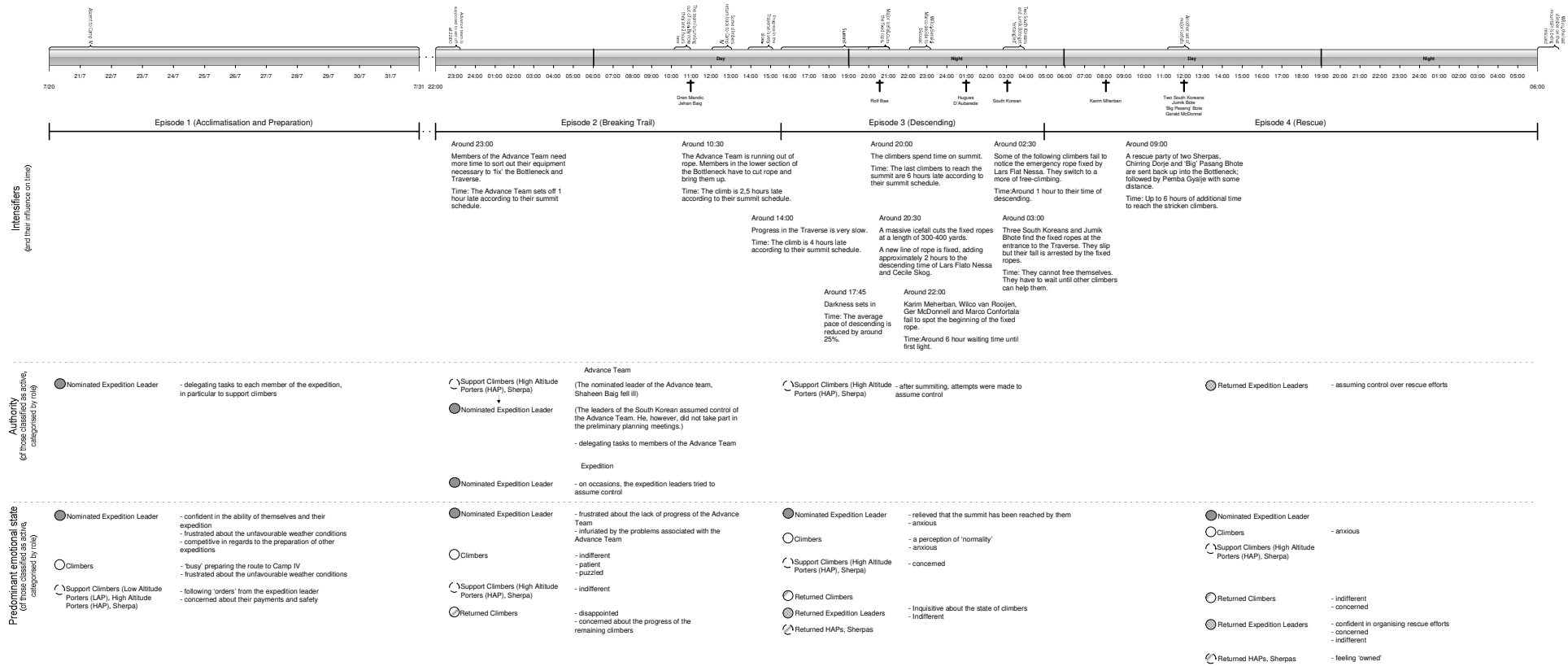


Figure 2. Flowchart of K2 event continued