

social sciences

# Mindful and Self-Compassionate Leadership Development: Preliminary Discussions with Wildland Fire Managers

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Decisionmaking in wildland firefighting is an evolving, dynamic reflection of a complex array of social and environmental factors that managers are expected to handle with fewer resources than in past eras. The need for new and effective ways of developing the capabilities to handle these factors is paramount. Seven focus group interviews with wildland fire managers ( $N = 39$ ) throughout the western United States were conducted to assess the meaning and utility of two potential tools that could aid in this development—mindfulness (Kabat-Zinn 1990) and self-compassion (Neff 2003). Individuals who integrate these processes in their lives have been found to maintain and build important personal resources. Managers in this study best resonated with the concepts of mindfulness and self-compassion through four main methods of relating them to personal fire experiences that offer guidance to other managers. They saw value in training fire personnel to use these tools with caution toward self-compassion.

**Keywords:** decisionmaking, mindfulness, self-compassion, wildland fire, leadership

**D**ecisionmaking in wildland firefighting is an ever-evolving reflection of current policy, fire conditions, budgets, firefighting tactics, public expectations, and fire crew abilities. Together, these factors interact to create a complex environment that can change rapidly, which managers are expected to handle with fewer resources than in past eras. As such, the ability of fire personnel to wisely use limited resources, engage in moment-to-moment happenings, attune to novel and changing circumstances, engage others, and be resilient through unexpected events is a major determinant to their success. One of the biggest challenges facing fire managers today is how to develop such a capacity.

## Mindful and Self-Compassionate Leadership Development: Preliminary Discussions with Wildland Fire Managers

Through discussion with leadership curricula experts, exploration of the wildland fire leadership curricula (leadership courses, e.g., L-180, 380, 580, etc.) and other human factors training found in select S-courses, fire refreshers, bulletins, and investigation reporting, it has been found that guidance and opportunities have been offered to fire personnel to develop their decisionmaking abilities under stressful conditions. However, researchers found that the

focus is often on tactical decisions. While some attention in training has been directed to understanding and learning to build intra- and interpersonal capacities that are critical for understanding and developing oneself, leading, and communicating in a dynamic environment, it occurs far less than tactically focused training. Just as the personal and situational factors confronting leaders in wildland firefighting are constantly shifting and evolving, the guidance and training given to fire personnel must also shift and evolve to be the most effective. Our aim is to equip managers with the two emerging conceptual tools of *mindfulness* and *self-compassion* that have been used in various domains to bolster the ability of individuals to maximize optimal decisionmaking capabilities and are not a part of current training curricula.

### Mindfulness

In concise terms mindfulness has been defined as paying attention on purpose in the present moment (Kabat-Zinn 2003). Being in a mindful state has been likened to living in a glass house, where one is aware and can see what is going on throughout the house, but conscious focus is directed to what is most important (Langer 1989). In contrast, being in a mindless state has been

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described as living in a solid-walled house, where there is less awareness about what is going on in the rest of the house. By being in a mindful state, one is able to see factors more clearly and shift attention more quickly to what is most needed. The ability to shift attention quickly and respond appropriately is essential in wildland fire.

Mindfulness emerged in Buddhist philosophy over 2,500 years ago and has recently integrated and evolved within Western thought. Over the past 35 plus years numerous studies using Westernized mindfulness have yielded many positive findings. Mindfulness practitioners, subjects, and patients have been found to cope with pain, stress, emotional exhaustion, and other factors influencing stress and overall health as measured through various questionnaires and brain imaging scans (Kabat-Zinn et al. 1985, Carlson et al. 2004, Siegel 2007, Goodman and Schorling 2012). Relatedly, mindful physicians have been found to be more technically competent, solve problems better, make evidence-based decisions, and have a higher level of insight (Epstein 1999, Krasner et al. 2009). Beyond the ability to have a broader awareness, mindful individuals have been found to be more creative and are more likely to find novel solutions to complex problems (Langer 1989, Kabat-Zinn 1990, 2003), and handle multiple tasks more effectively (Ie et al. 2012).

One of the most recent successful developments in training individuals with mindfulness that has commonalities with wildland firefighting has been with the US Army (Jha et al. 2010). The environments of wildland fire and war both include working under stressful conditions, handling a dynamic environment, and needing to make important decisions in a timely fashion. The army has used mindfulness through a program entitled Mindfulness-Based Mind Fitness Training (MMFT) to help soldiers practice mindfulness, understand parallels between mind and physical fitness, and regulate extreme stress (Jha et al. 2010). Stanley and Rensink (2010) has termed this use of it “mental armor” because of its mental and physical properties. From the success it has seen in the military, it was expected that wildland fire could have comparable success. The range and utility of mindfulness has varied across the many domains it has been used, but there are key similarities. An analysis of mindfulness scales revealed five iterated components (Baer et al. 2006):

1. *Nonjudgmental of inner experiences*—

being able to disengage from initial thoughts and reactions to allow space and time for the full evaluation of facts and different perceptions before a decision is reached.

2. *Observing and attending to sensations, thoughts, and feelings*—acute awareness of the self, others and the environment and how they are changing.

3. *Acting with awareness*—being aware of the details of one’s actions and not being overtaken by distractions (e.g., spilling something because one wasn’t paying full attention).

4. *Describing thoughts effectively*—the ability to convey internal and external observations accurately to the self and others.

5. *Nonreactivity to inner experiences*—the ability to perceive inner emotions without having to react to them.

These five elements offer researchers a way of studying and describing mindfulness and were used in the beginning stages of this study to help the researchers explain the different aspects of mindfulness to participants.

## Self-Compassion

Self-compassion has a similar history as mindfulness in that it has existed in Eastern philosophy for over 2,000 years, but it is a relatively new concept in Western research and practice (Neff 2003). Self-compassion is showing oneself positive self-regard when faced with life challenges and is said to involve three components, kindness, common humanity, and aspects of mindfulness (Neff 2003). Kindness entails being understanding rather than being judgmental of oneself during times of pain or failure; common humanity entails feeling part of a larger human experience rather than isolated and alone; and mindful awareness is used to view cog-

itations and emotions through an objective, balanced perspective so individuals avoid overidentifying with their thoughts and feelings (Neff 2003).

Those higher in self-compassion are more resilient through difficult times (e.g., during times of failure, feeling inadequate, and feeling emotional pain and suffering) when it would be easy to get swept up in these difficulties (Siebert 2010). Self-compassion has comparable correlates to self-efficacy (Bandura 1990) and elements of emotional intelligence (Goleman 2005) and has been shown to have similar outcomes to self-esteem (Neff 2003, Neff et al. 2007). However, a major difference between self-compassion and self-esteem is that self-compassionate individuals do not experience some of the pitfalls of self-esteem, including its up and down pattern (e.g., regarding oneself negatively when failing at a task and feeling great when excelling at a task), instead these individuals are able to be resilient and stable through difficulties (Leary et al. 2007, Neff 2007, Neff and Vonk 2009). Peck (1993), Neff (2003), and Neff et al. (2007) have noted that those high in self-compassion are able to accept negative aspects of the self and take responsibility for addressing problems because they do not feel the need to hide painful truths from themselves to maintain positive self-regard, as is often the case in self-esteem. Thus, self-compassionate individuals tend to be more aware of and capable of addressing problems. Due to the dynamic and constant demands of the physical and social environments that fire personnel work, the ability to address shortcomings, be resilient through difficulties, and improve one-

## Management and Policy Implications

Effective decisionmaking is dependent on handling multiple complexities in the social and physical environment. As manager responsibilities continue to increase in both intricacy and number with fewer resources, a need for developing personal skills and capabilities to successfully grapple with these complexities has become apparent. Two tools—mindfulness and self-compassion—have been shown to aid individuals in dealing with major life stressors and complexities (e.g., unexpected events, social conflict, fatigue, physical ailments, problem solving, etc.) across a variety of disciplines. By understanding the potential value of these tools in wildland fire by exploring why they are important and what their presence looks like in decisionmaking, managers can begin to appreciate the value and understand how to develop their own internal capacities through mindfulness and self-compassion. Through discussions with managers, four methods were identified as being important to developing effective decisionmaking in wildland fire, and the future potential of integrating mindfulness and self-compassion is realized.

self is an invaluable skill set for fire leaders.

## Complementary and Comprehensive Tools

Mindfulness and self-compassion fit together like two matching puzzle pieces in coping with life stress and making decisions. While self-compassion uses elements of mindfulness as part of its integral components, the two are still unique, separate concepts. Germer (2009) has noted that mindfulness is concerned with the functions of “the mind,” and self-compassion is concerned with “the heart.” Mindfulness brings the elements of awareness, a nonjudging attitude, and reflection, while self-compassion is a caring guide for individuals to integrate needed personal changes while maintaining a positive attitude toward the self.

The integration of the two in research is in its infancy yet has promising potential. For example, one recent study taught mindfulness to college students entering helping professions (Newsome et al. 2012). The 6-week intervention program was shown to significantly decrease perceived stress while also significantly increasing mindfulness and self-compassion. Moreover, the positive effects were still evident 1 month following the conclusion of the intervention. A mindful self-compassion program was also found to result in positive outcomes by way of enhancing mindfulness, self-compassion, and well-being (Neff and Germer 2013). The 8-week workshop targeted community adults and, again, the positive outcomes were maintained at postintervention follow-ups assessed in this project at 6 and 12 months.

The question that remains to be answered is, to what extent might the tools that are proving to be beneficial with other populations fit into wildland fire? The researchers are unaware of any research that has been done on the application of mindfulness and self-compassion in relation to wildland fire. Consequently, the primary aim of the study was to identify the meanings assigned to the terms mindfulness and self-compassion and determine how wildland fire managers related to these concepts. One other aim of the study was to understand important aspects that would help managers use and integrate these concepts into their decisionmaking. In essence the researchers wanted to consult with individuals intimately familiar with the culture and demands of wildland fire to ascertain their

understanding of and receptivity to mindfulness and self-compassion as possible mechanisms for furthering the essential leadership training of fire personnel.

## Methods

### Participants

Thirty-nine fire managers and crew supervisors comprised seven focus groups that met with the lead author from November 2010 through March of 2011. The participants ranged from fire management officers (FMO) to lead crewmembers. Participants were over 18 years of age and were working for a government agency at the time of the interview; 38 of the 39 participants were working for a federal agency with the Department of the Interior (DOI) or the Department of Agriculture (DOA), and one was a state fire manager. Focus group interviews took place in California, Utah, Arizona, Oregon, and Montana. The researchers employed a purposive sampling technique (Morse and Richards 2002), focusing on fire managers and crew supervisors. Study sites were determined by maximizing access to fire managers and crew supervisors by targeting off-season classes, workshops, and meetings.

### Approach

A qualitative approach that employed semistructured interview questions was taken due to the paucity of research on mindfulness and self-compassion in wildland fire. Researchers worked collectively with fire managers and supervisors (referred to as managers for the remainder of the manuscript) because of their expertise in the field and to gain practical insights of directions and important considerations for the future. Group interview formats were used because participants were similar across groups, and they allowed managers to interact, discuss, and clarify thoughts and ideas that would not have been possible in solo interviews (Creswell 1998). The dynamic, synergistic, learning atmosphere enhanced the overall quality of the conversations (Patton 2002). Moreover, the lead author who conducted the group discussions had been a wildland firefighter for 8 years at the time and was, therefore, able to relate to fire personnel and gain their trust. Group interviews also allowed researchers to assess the consistency or diversity of thinking (Patton 2002) and find common themes in reference to mindfulness and self-compassion in wildland fire. Last,

fire managers were able to point out potential problems and flaws with these tools as they pertain to wildland fire.

## Procedure

Recruitment for this study was through personal connections and word of mouth. The lead author made initial contact with agency managers (e.g., FMOs, assistant FMOs, national leaders) within regional districts of the western United States. The researcher explained the study and asked managers to briefly describe the study and pass around flyers to recruit colleagues who were willing to participate in a group interview scheduled at a predetermined place and time in their districts. Interested managers contacted the researcher who collected participants' e-mail addresses and sent a copy of the consent document for them to read through ahead of time (that also included information for the time and location of the interview).

At the interview the researcher distributed hard-copy consent documents to the participants, which they read and returned before the start of the interview. The researcher safeguarded participant identities by allowing participants to use pseudonyms throughout the interview process. Additionally, all personal information available on the consent documents was kept in a secure location at the researchers' university. All interviews were digitally recorded and transcribed. When the transcribed interviews were completed they were sent to all participants so they could verify that the important points had been captured accurately. Each group averaged six to seven managers to allow for a diverse array of opinions, while still permitting the opportunity for each participant to be heard (Patton 2002). Theoretical saturation or the point where no new themes emerged (Krueger and Casey 2009) resulted in seven groups. Data were analyzed based on individual and intergroup dialogue rather than group comparisons due to the similar nature of the participants. The first author played the role of “insider,” as she was privy to nuances of the firefighting culture; she participated in reflexive journaling to acknowledge and maintain awareness of thoughts, opinions, and biases during interviews (Creswell 2003). Both researchers coded and discussed themes that emerged from each interview through the experiences and meanings that participants attributed to the topics of mindfulness and self-compassion.

## Results

### What Is Mindfulness and How Do Managers Relate to It?

The interviews were started by asking what “being mindful” or the actual term mindfulness meant to fire managers. The purpose was to gain a starting point for discussing and expanding on these concepts with fire managers. In their definitions, managers would describe mindfulness as awareness or the paying attention to key elements and, in particular, situational awareness. Three common aspects that emerged were self, others, and the environment. For instance, Gary mentioned that being “aware of your mission and situational awareness of oneself and others in any particular situation” was mindfulness. Josh explained that it was “the pulse of yourself and those around you.”

Other managers went in more depth as to what “aware” means in mindfulness and how it relates with a popular component of wildland firefighting, situational awareness. For instance, Chris said, “When we see events or phenomena, we put a label on it and dismiss it...or put it in a box. Mindfulness, for me, is getting past that superficial level and actively analyzing it.” Heath added that mindfulness was like situational awareness, except it brought awareness to one’s “subtle senses (feelings + emotions).” Definitions of situational awareness are often aimed at understanding situations in physical environments (RAES-HWG 2013.). While managers could relate to the aspects of mindfulness that are associated with situational awareness of one’s environment, self, and others, only some managers understood the deeper meaning of mindful awareness. As John said, “If you’re mindful, then you are aware of what’s going on with you, and ya know why you’re kicking the dog and yelling at your wife and kids or whatever.” In this statement, John highlights aspects of the active analysis of oneself in relation to one’s actions, the environment, and others and articulating the cause of those actions, which are all central to mindfulness processes. John also added that active awareness “is focused, and it’s not just focusing on a single thing but focusing on what’s important right now, ya know, and that’s a moving target.”

To get a fuller understanding of its antithesis, *mindlessness* was also explored. As one conversation went:

Travis: What is mindlessness?

Ted: Autopilot

Autopilot or thoughtlessness were the most common ways that participants described mindlessness.

To further understand how managers related to mindfulness they were asked about fire events that had gone well (optimal) and others that had gone awry (unfavorable). In optimal events individuals described feeling calm, focused, and optimally challenged, which, as Ted described, “It’s a constant balancing act.” In addition, managers found it easiest to be mindful when it was a new, active fire. In contrast, when managers described unfavorable events, they described them from two perspectives. The first was as a decisionmaker, and the other was as an outsider or subordinate of the decisionmaker. As a decisionmaker, sleep deprivation, extended fire attack, and cumulative mental fatigue across a fire season were the most common factors affecting managers’ decisionmaking capabilities.

***Nonjudgmental of Inner Experiences.*** Events that went well often included elements of being nonjudgmental. As they were those that included being flexible and open to informational inputs without imposing immediate judgment on them, as Randy described “listening, observing, and accepting input” or through how Travis described a prescribed burn that presented challenges that were not foreseen:

I remember people saying here’s the plan, but the plan was really let’s adapt to whatever situation develops...the success was because of that adaptive approach, and even when things came up that were not expected that were way outside of what we expected, we adapted to it and made it happen.

On the other hand, when events did not go as planned a constant theme was letting “egos” take over and forgetting to be open to information. As Cody described the effects egos can have on mindless behavior, “They just want to control everything, and I think that’s when a lot of people find themselves in trouble. Their ego’s too much, and they think they know everything.”

***Observing and Attending to Sensations, Thoughts, and Feelings.*** In wildland firefighting tactics, the notion of setting “triggers” or key instances is an essential strategy of knowing when to pull back and reassess. Managers related the same tool when thinking of oneself in relation to stopping to observe internally. As managers noted, it is impossible to be mindful all of the time and that is why it is important to

have triggers or mechanisms in place to bring back their awareness. Managers mentioned using alarms on their watches, hearing radios go off, and assigning others to point out blind spots during decisionmaking. Such tactics helped managers to be “intensely focused” (Heath) and have a heightened awareness, which enabled them to “process more data within that period” (Chris).

***Acting with Awareness.*** The most common way participants were able to relate with acting with awareness was when its presence was lacking in the form of being on autopilot, fatigued, immature—which was often associated with being young, bored, and conversely overwhelmed. For instance, Ted described an event after a long duration of initial attack: “I sunk into autopilot...and the fire behavior was changing and we needed to change tactics, and I was flat on autopilot and I knew it...I mean I was still thinking, but I just wasn’t processing.” As Randy adds to this description under these conditions:

Decisionmaking is becoming poorer and poorer for several reasons; sleep deprivation and the constant mirage of decision-making...your mind is going a hundred miles an hour in a hundred different directions...that time wedge of decision-making becomes more pointed...you might not be as self-aware of your decisions...because you get all tense and start cycling through slides in your head that you know have worked in the past...but sometimes you’re not being mindful to the GS-3 ground pounder (entry-level firefighter who performs physical tasks on the ground).

Finally, Heath offered an example of watching a young division leader getting overwhelmed and sensing him “shutting down and not answering the radio.” In contrast, experiencing a lack of stimuli or during monotonous activities (e.g., mop-up phases of fire), it was considered more difficult to stay attuned to the environment.

***Describing Thoughts Effectively.*** The ability to effectively describe one’s thoughts and what might be seen as communicating “leader’s intent” effectively in firefighting was often noted in optimal events. As Chris described working with other crews where things were “fluid, the intercrew cooperation was seamless,” which he attributed to having “common objectives, very clear, [and] concise.” Others mentioned similar attributes and noted the good coordination and communication that resulted.

**Nonreactivity to Inner Experiences.** When managers took the view of an outsider's, or subordinate's perspective, they described negative, strong emotional experiences as being a leading cause of unfavorable events. For instance, Jeremy described a co-worker who is often wrapped up in negative emotions: "[this person] can get to a point where they get so consumed with negativity that they become worthless...living like that doesn't serve you anything, it distracts you." In addition, others described watching co-workers who have just been in a fight with a spouse or experienced some other emotional life event come to a fire event consumed with anger or other emotions to the point where they were unable to focus or respond appropriately to tasks. In fact, participants described being able to deal effectively with physical pain but acknowledged emotions were more challenging. Mike added a different perspective of emotion as he relayed his experience of getting information from fire personnel after they've been through a painful fire event stating, "You can't get people to tell you what those [their thoughts] are until they've let go of [emotional] baggage."

In summary, managers have varied takes on mindfulness, but in general, they were able to relate experiences of being mindful in a fire when they were flexible, open, had triggers, and were able to focus their attention on decisions being made. They could easily relate the opposite of mindfulness as being on autopilot or as Dennis described "the fog of war" where decisions and important information are seen through a haze.

### **What Is Self-Compassion and How Do Fire Managers Relate to It?**

After concluding our discussions on mindfulness, we asked participants to describe what they thought of when they heard the term self-compassion. Unlike mindfulness, many participants had a hard time adjusting to and putting words to the term self-compassion, in particular, self-kindness and self-judgment. However, when managers were able to put the term and its elements in the context of wildland fire, better outcomes were often a result of being more self-compassionate.

**Self-Kindness Versus Self-Judgment.** Managers consistently viewed analysis of negative events as being essential to the learning process in wildland fire and that being too kind to oneself could hinder that learning process. As Chris mentioned, "The

value of making mistakes is there is an emotional impact, and emotion is very much tied to memory...so...hopefully you don't make that mistake again." But as Ted responded, "It's a balance, though, because at the opposite end where you can't forgive yourself and you constantly beat yourself up for a poor decision and you can't let it go; you gotta [be able to] let it go." When viewed through the traditional definition, discussing self-kindness was a struggling point for many managers. On the other hand, when managers discussed self-judgment they easily resonated with the concept by comments such as "we are very hard on ourselves and we internalize failures and probably hold...[ourselves] to a more difficult standard than other people" (Travis), or "I'm probably harder on myself than anyone else for sure" (Bryan). Managers were able to easily relate instances where they had been internally self-critical for an extended period of time. Interestingly, when managers talked about watching others judge themselves harshly many of them talked about instances where they had to remind crewmembers, coworkers, or subordinates to treat themselves as good as they would treat their friends. Moreover, when managers were asked how well they were able to focus their attention during a difficult time, many managers responded with:

Dave: Not much.

Evan: You're not.

Katie: Not at all.

Robert: You're focused on what...has happened or what you could've done.

Managers were asked to describe how they had overcome a difficult or bad experience successfully. We found that many exhibited self-kindness to themselves. For instance, Rick noted the mindset he needed to have to be honest and ask and answer critical questions of himself "cause you're not perfectly mindful at all times, and so by understanding that and getting those answers...you come to a solution." The importance of this mindset can also be seen through Mike's answer "eliminate guilty thoughts as soon as you can" or Gary's "keeping the positive attitude." More often than not, managers described this positive attitude through framing the occurrence as a learning experience and a chance to improve and grow rather than a failure that could not be overcome. It was in this last way that managers could especially relate with self-kindness.

**Common Humanity Versus Isolation.** When it came to understanding and relating to common humanity, most participants could easily make the translation to its importance in the workplace. For instance, managers made comments linking stressful decisionmaking circumstances to understanding that inadequacies are part of the human condition as is apparent in this comment: "Do you have somebody watching you, or helping you identify those blind spots? Because we all have them" (Randy) or during other difficult times "we all have baggage, we all beat ourselves up" (Mike). Furthermore, some managers mentioned isolating themselves through seeing their experiences as being somehow different and worse than others' failings. Others talked about the importance of discussing these experiences with coworkers and gaining different perspectives to see that they are a normal part of being human. Gary described an experience that was helped after going through an After Action Review and discussing the situation with others: "Then all these other things got clarified...and that kind of all brought it home. No one was right or wrong; it was just, it happened and you dealt with it." Most commonly participants related to common humanity by understanding that no one was perfect and that everyone makes mistakes.

**Mindfulness Versus Overidentification.** This aspect of self-compassion was readily acknowledged, and participants were often able to understand it as the part of mindfulness that addresses the emotions and, in particular, saw it as being very similar to *nonreactive to inner experiences* of mindfulness; Baer et al. (2006) found a strong correlation of this aspect of mindfulness to self-compassion. As such, managers referred back to their previous comments concerning mindfulness when asked about this element. Neff (2003) highlights the importance of this aspect of self-compassion in relation to the other aspects of self-compassion in that a mindful, detached look at one's emotions decreases self-criticism and counters egocentrism while increasing self-kindness and a connectedness to others. This component may serve as a bridge that links mindfulness and self-compassion, an area future research should explore.

In general, participants found conceptual aspects of self-compassion difficult to relate to or describe, however, when it was referenced to them in the context of their experiences, many had used self-compassion

techniques to overcome difficulties in their lives; they just called it something different. Hence, the essence of self-compassion was not a completely foreign concept to fire managers, but the implication it could have in the work environment was a new idea.

## Implications for Wildland Fire Personnel

### Using Mindfulness and Self-Compassion in Wildland Fire

It was apparent through discussion with wildland fire managers that many of them have either developed or recognized ways that they have used elements of mindfulness and self-compassion to help them achieve higher levels of optimal performance and that lacking mindfulness or self-compassion was often related to unfavorable outcomes. Four salient methods of using mindfulness and self-compassion to increase effectiveness in wildland firefighting emerged from the data:

- Creating triggers that are reminders to check awareness (e.g., radios, alarms, etc.).
- Creating personal, meaningful questions that encourage mindful reflection.
- Keeping a positive attitude by framing negative experiences as opportunities to learn.
- Sharing and discussing failed attempts with others to keep perspective.

These ideas are not necessarily “new” to wildland fire, but the integration of mindfulness and self-compassion provides a framework for managers to see a broader, more cohesive picture. For instance, the hardest part of mindfulness is *remembering* to stop and pay attention (Didonna 2009). As such, creating triggers or cues for the self to remember to stop and assess is an important aspect of mindfulness that was revealed through managers’ experiences. Next, Langer (1989, 2000) has noted that creating questions that encourage open-ended, flexible thinking enhances creativity and problem solving. The key, as managers described, was to make the questions meaningful for the self. Third, Neff (2003) has consistently stressed the importance of keeping a positive frame of reference to deal with difficulties effectively. Moreover, the importance of framing an experience as learning is also noted by Langer (1989, 2000). Fourth, Neff (2003) notes the significance of keeping perspective of troubling experiences as being part of a larger human condition. This can be seen when fire managers described con-

versing with other fire personnel about situations that had not gone well; these conversations helped them see their experience as part of the learning process and helped them move forward with clarity.

From these findings, managers who were able to employ the four methods described above by recognizing or creating intrapersonal triggers, developing open-ended, personally relevant questions, maintaining a positive attitude, and openly discussing unfavorable outcomes had more favorable outcomes were resilient through difficulties, and moved past unfavorable experiences in a productive manner.

### Should We Implement Mindfulness and Self-Compassion Training in Wildland Fire?

Regarding these four methods and applying them at a larger scale, managers were asked about their general attitudes and feelings toward developing training that explicitly uses mindfulness and self-compassion. In most cases, fire managers believed there was benefit to integrating mindfulness and self-compassion into fire training through leadership courses as a way to improve self-awareness, decisionmaking, leadership, and overall well-being. But as Chris stated, “Is there value to it being introduced and taught, yes, absolutely, but with caution and restraint.” Several managers discussed how the wildland fire community can be a critical audience and that what is presented needs to be done in a way that is easily relatable, practical, and cannot feel forced on them. In other words, great care needs to be taken into how it is marketed and introduced.

Moreover, the importance mindfulness can add needs to be explicit. As Dan described, “If I get clarity soon, if I see value added and...through a number of different levels of how I’m supposed to move through my day. That’s important to me, so then I’ll grab it.” Dan also mentioned that fire personnel need to be made aware that this was “the long-haul, it’s the marathon” because the ability to use these concepts will improve through time and experience. Paul saw these components following this train of thought: “You know, a better firefighter is a better person...they can support each other...this initiative will eventually, if you choose to see it through, help you be a better firefighter and a better person, which is going to be the foundation of you developing into a leader.”

**Table 1. Optimal and unfavorable event characteristics.**

| Optimal event characteristics  | Unfavorable event characteristics        |
|--|--|
| Open to informational inputs   | Ego                                      |
| Calmness   | Overwhelmed                              |
| Flexible   | Hanging on to baggage                    |
| Awareness of distractions  | Immaturity                               |
| Actively participating in your thought process                       | Sleep deprivation                        |
| Maturity   | Time pressure/urgency                    |
| Well-thought-out planning  | Things not going to plan                 |
| Clear communication  | Checklists                               |
| Optimally challenging tasks  | Boredom (e.g., mopping up phase of fire) |
| Active fire  | Cumulative mental and physical fatigue   |
| Triggers (e.g., alarms, radios going off, others watching your back) | Under- and overly tenuous tasks          |

In summary, participants most easily related to the questions that were asked about the different aspects of mindfulness and self-compassion when asked to describe job-related events that went well (optimal events) and events that went awry (unfavorable events). In the interviews, the comparison became a juxtaposition of mindful and mindless behavior and compassionate and uncompassionate behavior toward the self (see Table 1).

## Conclusion

From the investigation, and especially through the way participants’ described optimal and unfavorable experiences, it became clear that lacking mindfulness and/or self-compassion often led to poor outcomes, distracted thinking, and less effective decisionmaking. It also became apparent that, as the fire season progresses, managers are prone to being less mindful due to fatigue. Additionally, fire managers have a tendency to internalize failures and can struggle moving past them at times. The four methods of using mindfulness and self-compassion that were identified in this research serve as valuable guides for fire managers to enhance their leadership and decisionmaking capabilities through mindfulness and self-compassion training. Further, training in mindfulness and self-compassion could serve a useful role with a variety of fire personnel if they are stated in a relatable way that emphasize the benefits of incorporating these concepts, which were highlighted by the four routes identified in the research. Future in-

vestigations should explore ways to incorporate elements of mindfulness and self-compassion for a broader array of fire personnel into leadership and other human factors training as well as potential catalysts and barriers to their implementation, particularly the introduction, which was noted by fire participants.

## Literature Cited

- BAER, R.A., G.T. SMITH, J. HOPKINS, J. KRIETEMEYER, AND L. TONEY. 2006. Using self-report assessment methods to explore facets of mindfulness. *Assessment* 13(1):27–45.
- BANDURA, A. 1990. Perceived self-efficacy in the exercise of personal agency. *J. Appl. Sport Psychol.* 2(2):128–163.
- CARLSON, L.E., M. SPECIA, K.D. PATEL, AND E. GOODEY. 2004. Mindfulness-based stress reduction in relation to quality of life, mood, symptoms of stress and levels of cortisol, dehydroepiandrosterone sulfate (dheas) and melatonin in breast and prostate cancer outpatients. *Psychoneuroendocrinology* 29:448–474.
- CRESWELL, J.W. 1998. *Qualitative inquiry and research design: Choosing among the five traditions*. Sage Publications, Thousand Oaks, CA. 403 p.
- CRESWELL, J.W. 2003. *Research design*, 2nd ed. Sage Publications, Thousand Oaks, CA. 246 p.
- DIDONNA, F. 2009. *Clinical handbook of mindfulness*, Didonna, F. (ed.). Sage, New York. 556 p.
- EPSTEIN, R.M. 1999. Mindful practice. *JAMA* 282(9):833–839.
- GERMER, C.K. 2009. *The mindful path to self-compassion*. The Guilford Press, New York. 306 p.
- GOLEMAN, D. 2005. *Emotional intelligence*, 10th Anniversary ed. Bantam, New York. 352 p.
- GOODMAN, M.J., AND J.B. SCHORLING. 2012. A mindfulness course decreases burnout and improves well-being among healthcare providers. *Int. J. Psych. Med.* 43(2):119–128.
- IE, A., C.S. HALLER, E.J. LANGER, AND D.S. COURVOISIER. 2012. Mindful multitasking: The relationship between mindful flexibility and media multitasking. *Comput. Hum. Behav.* 28(4):1526–1532.
- JHA, A.P., E.A. STANLEY, A. KIYONAGA, L. WONG, AND L. GELFAND. 2010. Examining the protective effects of mindfulness training on working memory capacity and affective experience. *Emotion* 10(1):54–64.
- KABAT-ZINN, J. 1990. *Full catastrophe living*. Delta, New York. 467 p.
- KABAT-ZINN, J. 2003. Mindfulness-based interventions in context: Past, present, and future. *Clin. Psych. Sci. Pract.* 10(2):144–156.
- KABAT-ZINN, J., L. LIPWORTH, AND R. BURNEY. 1985. The clinical use of mindfulness meditation for the self-regulation of chronic pain. *J. Behav. Med.* 8(2):163–190.
- KRASNER, M.S., R.M. EPSTEIN, H. BECKMAN, A.L. SUCHMAN, B. CHAPMAN, C.J. MOONEY, AND T.E. QUILL. 2009. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA* 302(12):1284–1293.
- KRUEGER, RA., AND M.A. CASEY. 2009. *Focus groups: A practical guide for applied research*, 4th ed. Sage Publications, Inc., Thousand Oaks, CA. 240 p.
- LANGER, E.J. 1989. *Mindfulness*. Da Capo Press, Cambridge, MA. 256 p.
- LANGER, E.J. 2000. Mindful learning. *Curr. Direct. Psych. Sci.* 9(6):220–223.
- LEARY, M.R., E.B. TATE, C.E. ADAMS, A.B. ALLEN, AND J. HANCOCK. 2007. Self-compassion and reactions to unpleasant self-relevant events: The implications of treating one-self kindly. *J. Person. Soc. Psych.* 92(5):887–904.
- MORSE, J.M., AND L. RICHARDS. 2002. *Readme first for a user's guide to qualitative methods*. Sage Publications, Thousand Oaks, CA. 262 p.
- NEFF, K.D. 2003. Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self Ident.* 2:85–101.
- NEFF, K.D., S.S. RUDE, AND K.L. KIRKPATRICK. 2007. An examination of self-compassion in relation to positive psychological functioning and personality traits. *J. Res. Personality* 41: 908–916.
- NEFF, K.D., AND C.K. GERMER. 2013. A pilot study and randomized controlled trial of the mindful self-compassion program. *J. Clin. Psych.* 69(1):28–44.
- NEFF, K.D., AND R. VONK. 2009. Self-compassion versus global self-esteem: Two different ways of relating to oneself. *J. Personality* 77: 23–50.
- NEWSOME, S., M. WALDO, AND C. GRUSZKA. 2012. Mindfulness group work: Preventing stress and increasing self-compassion among helping professionals in training. *J. Specialists Group Work* 33(4):297–311.
- PATTON, M.Q. 2002. *Qualitative research & evaluation methods*, 3rd ed. Sage Publications, Inc., Thousand Oaks, CA. 688 p.
- PECK, M.S. 1993. *Further along the road less traveled*. Simon & Schuster, New York. 252 p.
- ROYAL AERONAUTICAL SOCIETY–HUMAN FACTORS GROUP (RAES-HWG). 2013. *Summary of the various definitions of situation awareness*. Royal Aeronautical Society. Available online at [www.raes-hfg.com/crm/reports/sa-defns.pdf](http://www.raes-hfg.com/crm/reports/sa-defns.pdf); last accessed Mar. 5, 2013.
- SIEBERT, A. 2010. *The survivor personality*. The Penguin Group, New York. 293 p.
- SIEGEL, D.J. 2007. *The mindful brain*, 1st ed. W.W. Norton & Company, Inc., New York. 387 p.
- STANLEY, E.A., AND R.A. RENSINK. 2010. Neuroplasticity, mind fitness and military effectiveness. P. 257–279 in *Biologically-inspired innovation and national security*, Drapeau, M. (ed.). National Defense University Press, Washington, DC.