

Fiery Climates: A Story of Wildland Firefighters

by

Robert Scott  
B.S., Westminster College, 2011

A Thesis Submitted in Partial Fulfillment of the  
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MASTER OF ARTS

in the Department of Sociology

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**Supervisory Committee**

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Dr. Kevin Walby (Department of Sociology)  
**Co-supervisor**

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## **Abstract**

### **Supervisory Committee**

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This thesis provides an interpretation about how wildland firefighters can experience risk by relations of trust. The author shows that the risk taking and wildland firefighting literatures inadequately account for how trust underpins self-construction processes among people who participate in risky activities. To supplement the literatures within these terms, the author uses interview data and personal stories about managing wildland fire to propose a general trajectory of being and becoming a wildland firefighter that details the significance of trust in self-construction processes. The author argues that in the process of being and becoming a wildland firefighter, risk is sometimes increased, decreased, concealed, revealed, and anticipatorily transformed through trust. The author provides a framework for viewing risk that can be used to understand danger to the self.

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## Chapter 1: Introduction<sup>1</sup>

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*January 30, 1841*

These particles of snow  
Which the early wind shakes down  
Are what is stirring,  
Or the morning news of the wood.  
Sometimes it is blown above the trees,  
Like the sand of the desert.

You glance up these paths,  
Closely imbowered by bent trees,  
As through the side aisles of a cathedral,  
And expect to hear a choir chanting from their depths.

You are never so far in them  
As they are far before you.  
Their secret is where you are not  
And where your feet can never carry you.

(Henry David Thoreau, *All Nature Is My Bride*, 1841/1975)

### A SHORT STORY

I started fighting wildland fire because I was in love. It was May 2008 and my student visa was expiring. I would soon leave the United States for Canada alone. My mind raced to and from ideas on how I could return. Receiving an education was not my primary interest. Being with Katie was. I promised we would be together again.

I returned to Canada and started working for my mother in June. Katie and I spent the next two months talking by telephone and text-message and in August we visited in Ontario. We saw the Horseshoe Falls and the American Falls in Niagara. We saw the CN

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<sup>1</sup> A glossary is provided in the back pages of this thesis (Appendix A). Word definitions change from place to place so you might find reading the glossary helpful even if you are well versed in a wildland fire dialect. On separate notes, I add photos at the end of each chapter by their theme and content. I took the photos when I was a wildland firefighter. In addition, my intention is to extend this thesis later to include chapters on death, place, and the body.

Tower and the Blue Jays in Toronto. We saw the lakes and the forests of Haliburton. While the visit was wonderful, it was short lived. While it was lived, we were often contemplating our next move. We eventually decided I should return to school in the United States, even though I was 18 years old and unable pay for international student fees. But like some would do, I asked my parents if they would cosign a loan for me or lend me money. These were not options.

For an unknown reason after Katie left in August, I met an old friend's mother who owned a farm down the road from the little town where I grew up. News was in the air. Although it had been quite some time since I returned to the forested lands and agricultural fields of my childhood, and to be sincere, I cannot recall why I returned, probably for strawberries or old memories, the lands and fields were the basis of the news. My friend's mother told me that my old friend fought wildland fire for the Government of Ontario and made \$30,000 in one summer of work. My eyes widened. Katie appeared in my mind. And that was it. I would become a wildland firefighter.

I could not join a fire management program in Canada at that time because fire seasons were ending. I was about to start school at Lakehead University in Thunder Bay as well. In the next seven months, Katie and I talked by telephone and text-message and visited when it was possible. As the days grew shorter and so much colder, I researched fire management programs in Canada and discovered that Saskatchewan's program, unlike many others, paid people to attend 'new hire training'. My mother then advised me to talk to my uncle about the job and the program. My uncle once worked as a forester in Saskatchewan. I had 'an in.' I still had to meet requirements to work. But my uncle's connections surely helped me get the job.

I submitted a wildland firefighter application and physical examination results to Government of Saskatchewan, Wildfire Management Branch (WFMB) after the new year started. Then I travelled from Ontario to Saskatoon by airplane, took a bus to the provincial fire center in Prince Albert, and passed a fitness test that left me puking in a grassy field under a cloudless blue sky.

When I was back in Thunder Bay in the last week of March, I received a phone call from a firebase boss who asked if I would accept a job as a Type 1 Crew Member (Appendix B for description of wildland firefighter types). In my time at WFMB, Type 1 Fire Fighter crews were composed of one crew leader and four crewmembers from 2009 to 2011, and from 2012 to submitting this thesis, one crew leader and three crewmembers. I later heard that firebase bosses scouting people at the fitness test were intrigued I was willing to travel far from home for work. They thought I was committed. I accepted the job and declined it within two days. I accepted a Type 1 Crew Member position offer for a different firebase instead.

Type 1 Fire Fighters in Saskatchewan are typically employed from the start of April to the end of August. For this reason, firebase bosses can get approval for students who are firefighters to arrive for work when their classes are finished. My classes ended in April. So in the first week of May, I flew to Saskatoon, took a bus to the provincial fire center, and was sent to a camp for new hire training. After the training, I was somewhat lost. I did not have a vehicle. I did not have a home. Fortunately, I did have a new friend who would be working at the same firebase as me, and who would drive me back to the provincial fire center.

Shortly after we arrived in Prince Albert, our firebase boss called us to ask if we would travel to the firebase. We agreed. When we arrived, we met our boss and two wildland firefighters preparing fire equipment. My new friend and I toured the firebase and the neighboring little town before signing-out keys for two 10'x10' bunkhouse rooms.

The bunkhouse was not a temporary abode for me like it was for my new friend. I used it almost daily for five fire seasons and each work shift for a sixth fire season. While some wildland firefighters kept the walls of their bunkhouse rooms bare, mine were covered with fire posters and maps as the years passed. I took about two weeks off work, one or two times a fire season, in the first five fire seasons. Even so, some firefighters joked about the neighboring little town raising its population when I returned to fight fire each year. Some also wanted to name the bunkhouse 'Rob's Inn' with an inscribed sign. Wildland firefighters at the firebase seemed to approve of me missing work because I was not able to leave the firebase on scheduled days off as most of them were and did.

Wildland firefighters started leaving their bunkhouse room windows open for airflow by midsummer, even though the air-conditioner was on. In the mornings they were often welcomed by winds that chattered the forest pines and sometimes pushed through the holes of their window screens. On great mornings, they were welcomed by drift smoke from distant and near lands. This made them smile. On great nights, almost as great as those when the sky flittered with meteors, the Milky Way, and green, purple, and reddish Aurora Borealis light, they were lulled to sleep by the soft precipitation of thundershowers pattering on the tinned rooftop above them. Looking back, I could have written this thesis on a travel bag and the bunkhouse. But this was never my intention.

I was introduced to fire on the landscape in my first shift of work. In May, two to three times a week, wildland firefighters and I were dispatched to put out small, human-made fires usually burning on reserves. Sometimes fires were burning farm fields off of reserves. After a few fire seasons, I learned that April and May were typically designated for what were known as 'reserve fires'. This was generally a time when prescribed burns got away from wildland firefighters capabilities, growing larger than expected, or when wildland firefighters and others would start fires for something to do. I learned that by June and July the weather conditions slightly changed, nourishing clouds to grow up. From little cotton balls to cumulonimbus monsters, water vapor could condense and clash until it met its match, a cold ceiling that would flatten its head out. Catalyzed into violently dark storms, the clouds could lash every which way, release thunderous screams, and cry to ease their pain.

'Bushfire season,' a term some wildland firefighters used to describe the time when fires ignited by lightning burned far into the forest, started in mid-June in my first fire season. There was one day that June when the forest was ready to burn because it had not rained much in more than a month.

The reindeer lichen on the forest floor crackled to dust beneath footsteps. The sky was filled with cumulonimbus clouds. We followed them with caution in a Bell-204 helicopter. The temperature was near 30 degrees Celsius, and the relative humidity, 25 to 28 percent. Clouds lashed out releasing minimal precipitation. As we flew behind them we saw trees being struck by lightning, which caused smoke to quiver into the atmosphere. Our crew leader in the front seat let us know that we would soon land at one of the

lightning strikes after a storm cloud moved on by. Once it had, we circled what was now a surface fire, and though we could not see its smoke, in the helicopter, we could smell it.

The person beside me caught my attention with a wavering hand, and with a pen and paper, taught me how to draw a picture of a fire from the air. We drew its shape, the lakes, and the streams around it. The goal in that quick moment was to sketch everything we saw, and in the years to come, I never gave up the practice, except to others, for people lose their bearing without first realizing a bigger picture.<sup>2</sup>

When the helicopter was lowered to two feet above the muskeg, we exited. This was a 'hover exit'. The pilot maintained the machine's power and balance as its main rotor bashed air off the surface below. When signaled, we slid the main cabin door open and transferred our weight off the machine to the muskeg one by one except for the crew leader in the front seat who watched and helped direct the operation. We moved slowly when we were getting off the helicopter to ensure safety for all. The last firefighter in the main cabin handed me the hose bags and our backpacks. I placed them beside the helicopter.

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<sup>2</sup> Taking pictures and videos or using maps works as well. Pictures, videos, maps, and drawings can enable wildland firefighters to more easily retain aerial images they can use with images they realize on the ground to project and guide their future actions. However, realizations on the ground can reveal the limitations of aerial images and vice versa. For example, distances seem vastly different, the slopes of hills or mountains seem different, tree sizes seem different, and previously unnoticed rocks and vegetation seem to appear. With more time in helicopters, though, especially on wildland fires, firefighters tend to better gauge the differences between their aerial images and their ground images in relation to managing wildland fire. Consequently, this can enable them to further project their future actions, which, so to speak, can lead to them making better plans on how to manage fires, better requests on what resources are required to manage fires, and better estimations on when fires might encroach communities. Sometimes wildland firefighters know landscapes near fires quite well and relying on pictures, videos, maps, and drawings is not greatly needed.

On the muskeg, our boots filled with water immediately. The wildland firefighters and I moved to the tailboom to retrieve the remaining fire equipment. One person held the compartment door open and another stood in front of it handing fire equipment to me. I took the hand tools, the pump, the tool bag, the chainsaw, and the mixed gas canisters to the aircraft's side in three trips. The wind pushed down. The muskeg forced me to place my feet just right. The hot exhaust fumes rushed past the top of the tailboom and I could feel their heat on my face intermittently.

Once the equipment was moved and the compartment door latched shut, we walked to the front of the helicopter. Our crew leader exited the machine to meet us. When we were all positioned, our crew leader signaled a thumb up to the pilot. After nodding in agreement and adjusting the helicopter blades, the pilot and machine moved upwards, to and beyond the point at which its downwash winds tightened our skin. We raised our soundproofing earmuffs and discussed a plan.

The fire was small, not larger than a bunkhouse room, but exciting. Because muskeg mostly surrounded it and I was newer, our crew leader instructed me to set up the pump and roll out some hoses. We extinguished the fire within thirty minutes, repacked our equipment, and while we waited for the helicopter to pick us up, we received a dispatch to a new fire. Before we were picked up, however, the pilot waited for a large cloud to pass by, a cloud that dropped hail.

Our crew leader used fluorescent orange flagging tape to identify a safety zone at the next fire. A chainsaw was used to clear an escape route through slash for wildland firefighters to use, if needed, the next day. Our assignment was to set up firefighting operations for the wildland firefighters. The escape route was also flagged and when it

seemed safe to travel on, we flew to the firebase. Our crew leader assisted in writing summaries about the fires before we parted ways. And when the workday finished, I walked to the bunkhouse thinking about what a day it had been, in need of food, a shower, and sleep.

The next morning I drank coffee to collect myself for a briefing with wildland firefighters where we were told about fire predictions, weather forecasts, safety tips, and directions on which crew would attack the first reported wildland fire. To my excitement, it would be the crew I was on. But when the briefing ended, some firefighters seemed to be contemplating what would soon ensue and how to deal with it. I had not a clue. I was interested in the idea of seeing fire one more time.

That afternoon my interest was realized. At one point, I stood on a dirt road gazing at a sky filled with CL-215 water bombers. Foam and water, flames ripping forty-plus feet above the treetops, and white, black, and copper smoke columns filled the landscape in every direction I looked. Later I found myself tramping through forest, leaping over rocks, felled trees, and bushes, to douse water on five small yet rapidly spreading spot fires that were ignited from flying embers from a growing fire landing on unburned forest across the dirt road.

From dusk and into the night, another wildland firefighter and I led two D-6 dozers around a fire. My job was to flag trees in front of the machines with fluorescent orange flagging tape to help guide their operators. It was a fast paced job with few breaks for rest. I had to jump over, walk on, and crawl under obstacles as mature timber smashed to the ground behind me. When I returned to the firebase at 2:40 a.m. the next morning I was exhausted but I felt as though I had accomplished something. By 7:30 a.m., I heard

of fourteen fires burning land near the firebase and saw ten helicopters, three dozers, pilots and engineers, dozer operators, cooks, launderers, and eighty or so firefighters at the firebase.

This happened two months after I undertook the Type 1 Crew Member position. I remained in the position for three fire seasons before I undertook a Type 1 Crew Leader position for two fire seasons, a Provincial Training Officer position for two years (I was on education leave for one year), a Type 1 Crew Leader position, once again, for one fire season, and a Provincial Training Officer position, once again, for slightly more than half a year. Each position helped me better understand my place in this world. I have been beside mystical and unforgiving fire. For some people, this results in death. Others leave battered, injured, and emotionally distraught. But many, leave virtually unharmed. Regardless of how they leave, they are changed.

The preceding pages foreshadow the arguments I make in this thesis. I primarily use stories from wildland firefighters to propose how they view themselves as wildland firefighters and learn how to be wildland firefighters. I consider that the titles firefighter and wildland firefighter are mere words. In removing them, I am in essence, speaking of being human.

This thesis is therefore about being human. It is about responsibility, teamwork, knowledge, risk taking, emotion, trust, interaction, contradictions, oppositions, and experiencing life. On these themes, I engage with and contribute to the risk taking, wildland firefighting, and social research methodology literatures. I suggest how time seems to affect human experience, offer recommendations to wildland fire management organizations to potentially keep workers safer from injury and death, and provide

suggestions on conducting social research. In fewer words, this thesis is an examination of life and death.

## DETAILS ABOUT THE JOB

Additional details about Type 1 Fire Fighters are required for readers. When I interviewed 14 Type 1 Fire Fighters in 2013 for this thesis (Appendix C for information about the wildland firefighters I conducted interviews with), Type 1 Crew Members were paid \$18.553 to \$23.248 an hour (CBA 2012). Type 1 Crew Leaders were paid \$20.036 to \$25.107 an hour (CBA 2012). Both positions were unionized with health, dental, and job security benefits. Both positions offered a pension plan and employees could request leave from work as well as to have work-related school and travel subsidized.

Type 1 Fire Fighters were scheduled to work eight to ten days consecutively in a two-week period, eight hours a day. The remaining two to four days were scheduled for days off. When required, wildland firefighters could work for a maximum of 12 days consecutively, but had to take two days off afterwards. The most hours they could work in a day without additional approval was 16 hours. Those who reached this at midnight could work another 16 hours. I never met a person who worked 32 hours straight. Generally, these rules applied when wildland firefighters worked outside Saskatchewan. The rules about hours and days of work, however, could change with additional approval.

Not including meal breaks, the most hours I worked in 12 days was 190 hours, two hours short of the maximum allowable. Wildland fire was moving into communities and WFMB lacked resources. I was dazed near the end of the 12 days, which worried me. After fighting fire that long, and seeing structures burn, and people scared, and fire

flashes some 150+ feet above the forest, and aircraft grounded because visibility was poor, I dreamt of making firefighting decisions for nearly two weeks.

Working beyond scheduled hours meant wildland firefighters were paid time and a half for every hour of work. Working days off meant they were paid time and a half or double time for every hour of work, depending on their schedules. These hours could be banked for later time off or they could be paid out. On statutory holidays, wildland firefighters were paid for eight hours of work, whether they were working or not, and those that were working received a supplementary payment of time and a half for every hour.

Wildland firefighters also accrued sick time and vacation time annually. There were rules on how much vacation and banked time they could carry over into new fiscal years. Some received a northern district living allowance, a bi-weekly stipend to cover the increasing cost of products as people move north, if they worked at a firebase north of, roughly, the 54<sup>th</sup> parallel (CBA 2012). When wildland firefighters worked away from their home firebases, their meals, accommodations, and mileage fees were covered. This was also the case when they attended training courses at their home firebases or when they managed fires within their home jurisdictions. In addition, most firefighting gear was provided to wildland firefighters. They could request reimbursement payments, with restrictions, for boots, prescription safety glasses, and passports.

While my hourly rate of pay increased incrementally since I started working as a wildland firefighter, my lowest gross pay from a fire season, because I worked four months as a Type 1 Crew Member and there was a lot of precipitation, was \$19,563.10. My highest gross pay from a fire season, because I worked five months as a Type 1 Crew

Leader and fought fire in Idaho USA, was \$32,712.75. The severity of the fire season for a given location, a wildland firefighter's hourly wage, and work attendance were factors associated with how much money a wildland firefighter made. It was possible to gross more than \$32,712.75 or less than \$19,563.10 from a fire season. Because most wildland firefighters thought a 'good' fire season involved managing many fires and making a lot of money, they sometimes navigated an ethical dilemma in speaking to people outside of the wildland fire industry, who generally and oppositely considered many fires as 'bad'.

As the last paragraph indicates, Type 1 Fire Fighters occasionally traveled away from their firebases for work. They could be asked to travel in Saskatchewan, Canada, or another country. This was mainly dependent on how dry the land was in the province. As a wildland firefighter, I saw most of Saskatchewan, north to south, east to west, from 2009 to 2016. In 2009, I worked in British Columbia for 14 days. And in 2013, I worked in Idaho USA for 17 days.

#### THE JOB AND DANGER

In 2013, there were 430 wildland fires in Saskatchewan (GOS 2014a). Humans started 270. Lightning started 160. The Canadian Interagency Forest Fire Centre (CIFFC) reports that there were 6,479 wildfires in Canada in the same year, burning 4,289,795 hectares of land (CIFFC 2013). In the 25 years up to 2013, CIFFC reports that there was an average of 353 wildfires in Saskatchewan, burning 300,771 hectares of land a year, and 4,304 wildfires in Canada, burning 1,460,310 hectares of land a year (CIFFC 2014). These figures are approximations because some fires go unreported and mapping fire sizes produces estimations.

Managing such wildland fires, some of which can turn forest floors into powdery blankets of ash and cause trees to resemble burnt matchsticks, forces individuals and groups to direct their actions and as much as possible the action of fire to remain safe from injury and death. Given certain fire conditions, wildland fires can produce more energy than atomic bombs and convective smoke columns that billow into pyrocumulonimbus clouds that generate lightning, fire whirls, and fire tornadoes (ABCTVCatalyst 2013). The most powerful blazes can threaten wildland firefighters' lives. But working near fire is not the only danger wildland firefighters face. Wildland firefighters, for example, sometimes work for many hours; breathe in large amounts of carbon monoxide; encounter hazardous animals, plants, and terrain; fly in aircraft; travel in vehicles; operate chainsaws; and work with heavy equipment. These can kill.

From 1941 to 2010, approximately 165 wildland firefighters, two to three people a year, died in Canada from wildland fire related incidents (Alexander and Buxton-Carr 2011). There was one wildland fire related fatality in 2013 (CIFFC 2013). From 1910 to 2013, approximately 1075 wildland firefighters, about 10 people a year, died in the United States from wildland fire related incidents (NIFC 2014a). In the same country from 1910 to 1996, approximately: 58 percent of wildland firefighter fatalities were “fire related” entrapments (i.e., overrun, backfire, spot fire, sleeping on the fireline, equipment operations, separated from crew, prescribed fire); 4 percent were “miscellaneous injury related” (i.e., electrocution, drowned, fell into fire, asphyxiation, unknown, toxic chemical contact, training, equipment related); 11 percent were “vehicle related” (i.e., responding to fire, returning from fire, struck by vehicle, equipment rollover on fire, collision with train, riding on apparatus); 0.1 percent were “natural activity related” (i.e.,

struck by lightning); 11 percent were “medical or sickness related” (i.e., heart attack, stroke, pneumonia, heat stroke, embolism); 13 percent were aircraft accident related (i.e., aircraft accident); and, 3 percent were “inflicted injury related” (i.e., rolling rocks, snag, snag felling) (NWCG 1997).<sup>3</sup>

Organizational policy and a fire’s location partly determine how wildland fire is managed. Although most fires are managed with little incident in relation to death and serious injury, there are many elements involved with managing wildland fire and their general variability is high, which poses some amount of danger to the self. Working near wildland fire is dangerous. It can change and perhaps end the self. For the purpose of this thesis, wildland firefighting is considered risky because it poses danger to the self. But all human activity poses some danger to the self and is therefore risky.

While much writing has been devoted to making sense of risk and risk taking, in this thesis I show that the risk taking and wildland firefighting literatures do not provide a detailed description of how trust underpins self-construction processes for people who participate in risky activities. Many arguments and suggestions I make in this thesis are directed to providing such a description.

#### A SHORT DISCUSSION

In sum, there are three main purposes of this thesis. The first is to provide the risk taking and wildland firefighting literatures with an interpretation about a general trajectory of being and becoming a wildland firefighter, which shows the significance of

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<sup>3</sup> I present statistics from the United States because I am unaware of similar statistics of wildland firefighter fatalities in Canada and because wildland firefighters in Saskatchewan understand their job alongside conceptions of the job in the United States. I anticipate writing about the latter when I extend this thesis. For information on the causes of deaths of United States wildland firefighters from 1990 to 2006, see: (NWCG 2007).

trust in self-construction processes. The second is to provide wildland fire management organizations with recommendations to potentially keep workers safer from injury and death. I consider that the current manner by which wildland fire is managed is dangerous and that people will continue to injure and die by the activity no matter how much research is conducted. The third is to extend the social research methodology literature by providing suggestions on conducting research.

The chapters in this thesis are directed to developing an understanding of how individual wildland firefighters construct a sense of self in relation risk. I situate the thesis in the risk taking and wildland firefighting literatures that are presented in Chapters 2 to 4.

In Chapter 2, Social Theory of Risk Taking, I present seminal social theory of risk taking. I provide detailed exegeses of five perspectives of risk taking which contain fundamental ideas to current studies of risk taking. I show that the perspectives provide inadequate detail on trust in their descriptions of self-construction processes. Yet, I extract their ideas about trust to assist in developing a theory of risk taking I present later in the thesis. I also introduce a theoretical framework, which includes ideas primarily from Simmel's ([1911/1919] 1959) "The Adventure", and Goffman's (1967b) "Where the Action Is", which I later use in the thesis to suggest how wildland firefighters normally came very close to sharing values about human behaviors, reasons and approaches for evaluating human behaviors, the importance given to specific human behaviors, and values about specific combinations of human behaviors. Both essays are about risk taking, self-construction, and identity-construction.

In Chapter 3, *Wildland Firefighters and Knowledge*, I present historical literature about wildland firefighters and wildland fire management and knowledge. I detail four, interrelated concepts of knowledge that have been and continue to be valued among many wildland fire management community members, and show how the concepts are subject to change with time and place. I use the literature in the thesis to suggest that wildland firefighters learn and create the types of knowledge by experience. I show that the literature, however, insufficiently details how trust is involved in the process of wildland firefighters learning and creating knowledge and thus in being and becoming wildland firefighters with respect to risk.

In Chapter 4, *Perspectives on the Development of Wildland Firefighters*, I present literature from the last two decades about how gender, sex, and sexuality are involved in being and becoming wildland firefighters. I suggest how identity categories are addressed in this thesis. I additionally show that the literature does not provide detailed descriptions of how trust underpins self-construction processes for wildland firefighters in relation to risk.

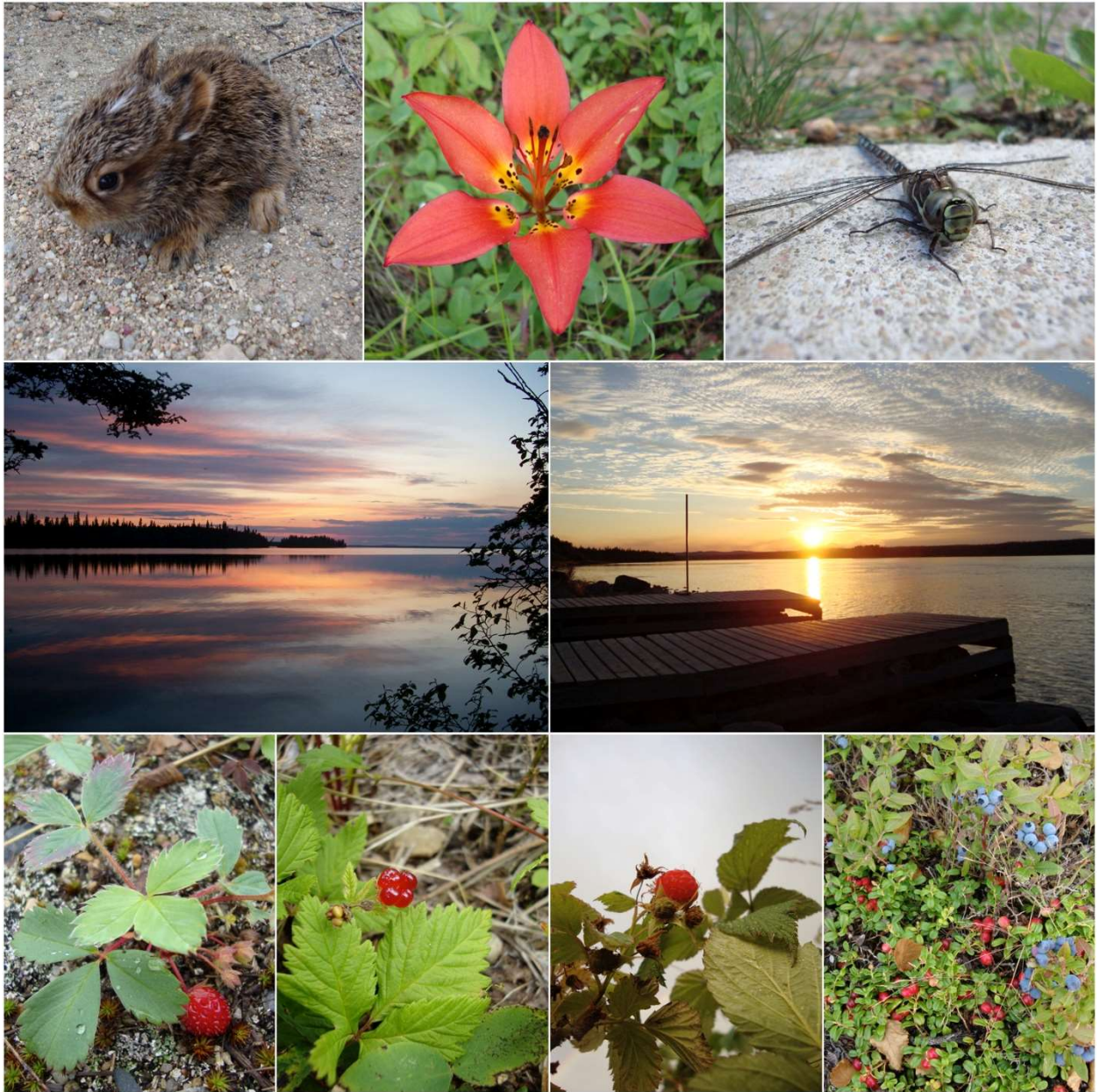
In Chapter 5, *Details About the Research Process*, I discuss the research process I used to conduct the research. I explain how I drew on some assumptions from ‘narrative inquiry’ and ‘autoethnography’ to produce, analyze, and interpret interview data and personal stories.

In Chapter 6, *The Crossroads*, I provide and interpret interview data about the backgrounds and identities of wildland firefighters, and what seemingly influenced them to undertake wildland firefighting. I engage with the risk taking and wildland firefighting

literatures to demonstrate the ways the data in this thesis supports, refutes, and extends assertions in past studies.

In Chapter 7, Knowledge, Risk, and Trust in Wildland Firefighting, I provide an interpretation about a general trajectory of being and becoming a wildland firefighter. I focus my analysis on knowledge transfer and production among wildland firefighters by four concepts of trust: self-confidence, mutual trust, behavioral trust, and wholehearted trust. Briefly, self-confidence involves trusting one's own perceptions of one's own abilities, knowledge, and judgments; behavioral trust, a variant of self-confidence, involves one's level of confidence in one's own perceptions of one's own knowledge and judgments about the usual and expected behaviors of another person; wholehearted trust involves individuals experiencing that they 'trust' someone or something; and, mutual trust involves mixtures of self-confidence among people and things that are dependent on one another to complete a task. I also describe an early-stage extended theory about self-construction in relation to risk taking, which is centered on the concepts of trust and knowledge. I show how wildland firefighters interviewed normally came very close to sharing values about human behaviors, reasons and approaches for evaluating human behaviors, the importance given to specific human behaviors, and values about specific combinations of human behaviors. I show how the knowledge wildland firefighters created impacted their experiences of risk with time. Throughout the chapter, I argue that in the process of being and becoming a wildland firefighter, risk is sometimes increased, decreased, concealed, revealed, and anticipatorily transformed through trust. I show how trust in individuals, groups, organizations, and wildland fire is important in experiencing risk and in the process of being and becoming a wildland firefighter.

In Chapter 8, Conclusion, I discuss the empirical, theoretical, methodological, and practical contributions of the thesis. I explain research limitations and share ideas for future research. Most significantly, I make empirical contributions on the themes of the identity and backgrounds of wildland firefighters, trust in the process of being and becoming a wildland firefighter, and experiencing risk as a wildland firefighter. I make theoretical contributions by providing an early-stage extended theory of risk taking, which includes concepts of trust and knowledge. I make methodological contributions about mixing assumptions from research methodologies in research approaches and the importance of trying to understand the history and context of research topics. I make practical contributions by providing a theory of risk taking that can be used to evaluate and potentially curtail danger to the self. The research limitations I discuss are about interpreting transcripts, the number of wildland firefighters interviewed, the homogeneity of the wildland firefighters interviewed, and influential parts of being and becoming wildland firefighters that are not interpreted in the thesis. On the last limitation, I suggest that people should use and develop the early-stage theory of risk taking I propose in the thesis to further interpret the significance of place, death, and the body in being and becoming wildland firefighters.







## Chapter 2: Social Theory of Risk Taking

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### A SHORT STORY

We spotted the small grey smoke plume in the distance against the dark green forest near the Boreal Shield. The sky was overcast. The lakes mirrored its color. Far off, a band of haze traced the Earth's curve. Airtankers descended on the fire as we waited in a hover, watching as they painted the forest near it red with fire retardant. After the planes exited, we circled the fire looking for a place to land.

A Bell-205 is a fair sized helicopter. The fire was burning in a white spruce stand mixed with aspen that went on for many kilometers. About three kilometers from the fire was a place to land but we did not want to hike the distance or towards the fires' front. About 100 meters from the fire was a possible place to land but it required work. It was a pocket of muskeg the white spruce and aspen surrounded and on declining ground next to them were dead and live tamarack and black spruce that shrank in size and number to the muskeg's center. Here, the trees were near nine feet tall, 10 to 15 feet apart, with trunks a few inches in diameter. They jutted from peat moss topped with leatherleaf, Labrador tea, and grass. Some were laid to rest beneath the shrubs.

The pilot and wildland firefighters agreed the helicopter would fit in the pocket of muskeg once it had been widened with a chainsaw. I was to run the saw that day. The pilot asked me about my feelings on dropping from a helicopter skid to the muskeg below. The near 13 feet of space between them was far greater than the hover exit height limits that I had learned in training. But to walk some three kilometers towards the fires' front in dense forest with fire equipment seemed wrong. So, when I saw a safe place to

drop to I told the pilot I would do it. Another firefighter, the swamper who would pile felled trees, would do it too.

When we hovered over the drop zone the left skid was close to a treetop. I took off my headset. The turbine engine whined. The main rotor blades thumped. I positioned my hardhat and soundproofing earmuffs, unlatched my seatbelt, latched it behind me, then unclipped the cargo net securing our fire equipment. I retrieved my backpack and the chainsaw and placed them beside the door to my right in the cabin.

After the cargo net was reclipped and the door was opened, the first test was to determine if the drop zone would take the weight of my falling backpack. It landed with little impression. The falling chainsaw was the second test. It landed with a deeper impression. I was test three.

I moved to a seated position with my feet on the helicopter step, my butt and hands on the helicopter floor. Turning left, I lifted my body by extending my arms and legs. I then lowered until I was crouching on the step. Holding the helicopter floors' edge, facing the front of the helicopter, I reached my right foot to the right skid. When it was firmly positioned, I transferred my hands to the step then my left foot to the skid. From a crouched position, I quickly moved my hands from the step to the skid, in front of my feet, lifted and turned my body, pushing my arms straight until my body was upright. I slowly sank down and my hands passed from my waist to above my head. I was hanging.

The wildland firefighter who would pile felled trees exited the helicopter as I had. The drop ended with wet boots and shins. We met on the ground, put safety gear on, and talked about which trees to cut. Shortly after, they were piled beside the white spruce and aspen where we stood. For a moment, I noticed my heart beating in my skull when we

watched the helicopter approach. But my attention was drawn to the machine's powerful wind when it came close to us.

Three wildland firefighters exited the helicopter and removed the remaining fire equipment and bucket. The bucket was taken from its bag and when the helicopter was raised to a hover a wildland firefighter connected its shackle to a cargo hook, and its electrical plug to a receptacle, attached to the bottom of the helicopter. When the wildland firefighter returned to the others waiting in front of the helicopter, a signal was given, the pilot flew up, and the bucket's suspension lines tensed. Once the bucket's weight was balanced and lifted from the ground, the pilot lifted the bucket above the trees and flew into the wind in search for water.

The wildland firefighters and I met to talk. The group was a mix of people from different crews at the firebase. The four crew members were in the job for less than five fire seasons each. It was my second. The crew leader was in the job for more than twenty. Once we agreed to a plan, we started moving the fire equipment to the muskeg's edge. Then the pilot relayed a radio message to us from the firebase. We were to return to the firebase because a tornadic weather front was approaching us. The equipment was brought back to the helispot before we unhooked and bagged the bucket and loaded the helicopter. As we lifted from the muskeg, we saw a thick band of black cloud rolling towards us from the west.

The flight back seemed like any other. As did the way we shared tales from the day with coworkers once we were at the firebase. Everyone seemed to enjoy the stories. But one wildland firefighter of more than a decade asked me what we would have done if I were impaled. I think about it sometimes.

This story illustrates many ideas that appear in the social theory of risk taking I discuss in this chapter. Five perspectives are introduced in the order of when they were first published. Each contains ideas that are fundamental to many current studies on risk taking. The purpose for introducing the perspectives is to extract their ideas on trust and to identify their concepts that are useful for this thesis, demonstrate that trust receives insufficient attention in the perspectives in relation to self-construction, and create a theoretical framework to help overcome this deficiency. In extracting ideas about trust from the perspectives, I begin to develop concepts of trust that contribute to the risk taking literature. I begin to show the concepts of self-confidence, behavioral trust, wholehearted trust, and mutual trust.

As suggested, the theoretical framework I create in this chapter is influenced primarily by Simmel's ideas in "The Adventure" and Goffman's ideas in "Where the Action Is". Both essays are introduced in this chapter. Many people have indicated the influence of Simmel's work on Goffman's work and similarities and differences between their works (see: Chriss 1993, Treviño 2003, Davis 1997, Gerhardt 2003). Davis (1997) suggests that Goffman used ideas from "The Adventure" to write "Where the Action Is" and that Goffman's and Simmel's overall "orientations toward human existence" are "ultimately irreconcilable" (p. 382/385). But in presenting their orientations as complementary opposites, Davis indicates that some reconciliation is possible (p. 385). I blend many ideas from Simmel and Goffman in this thesis.

For example, I use Simmel's ideas about people becoming culturally similar by experience and Goffman's ideas about valued human capacities and codes of conduct among people who take risks to suggest how wildland firefighters normally come very

close to sharing values about human behaviors, reasons and approaches for evaluating human behaviors, the importance given to specific human behaviors, and values about specific combinations of human behaviors. I also define risk in this thesis by a blended version of Simmel's and Goffman's definitions of risk.

It should not be assumed that the perspectives about risk taking I introduce in this chapter provide a comprehensive depiction of social theory of risk taking. Hunt (1999) demonstrates that ideas of risk taking appear in works by Plato, Aristotle, James, Hahn, Unsoeld, Whitehead, Dewey, and Thoreau.<sup>4</sup> There are many other people who have written on the topic as well. From my reading, however, it seems that most ideas in the perspectives I introduce are in one way or another, and to various extents, in most social interpretations of risk taking. I introduce the perspectives partly for this reason and partly because they are fundamental to many current studies on the topic. It should also not be assumed that the perspectives I introduce are equally fundamental to current studies on risk taking. Simmel's and Goffman's perspectives are arguably used the least. It will become clear, nonetheless, that although all of the perspectives were created from different epistemological positions, there are many similarities among them. The first perspective of risk taking I introduce is that in Simmel's ([1911/1919] 1959) "The Adventure".

#### GEORG SIMMEL

Much of the content in Simmel's "The Adventure" is noticeable in studies on risk taking. In the essay, Simmel ([1911/1919] 1959) offers a description of self and identity

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<sup>4</sup> Hunt focuses on risk taking in Plato's *Republic*. In Plato's (1954) "Crito", Crito and Socrates discuss potential consequences of rescuing Socrates from prison. The rescue is considered a risk, as translated by Tredennick.

creation and the connection between the two (p. 246). Frisby (1997) suggests that Simmel's "exploration of the adventure is an instance of a practical phenomenology" (p. 17). In "The Adventure", risk taking and danger are described as engaging in activity that is noticeably different from that which a person has already experienced and rationally analyzed (p. 246/250). The event *in* which this occurs is adventure. *The* adventure is its 'cognitive', one might say, realization.

Simmel suggests *the* adventure is a particular "*form of experiencing*" that pervades every cultural and historical context (p. 253). *The* adventure is the realization of a significantly meaningful experience, especially the realization of a "segment of existence" with a beginning and an end "according to its own formative powers" that is personally considered "out of the ordinary", "alien", and new when analyzed alongside reflections of what is personally considered ordinary (p. 244/245/255). Adventurous experience, therefore, transcends ordinary experience (p. 246). Simmel suggests adventure authenticates the self. How new experience needs to be to be realized as *the* adventure is indiscernible and from how many experiences the adventure arises from is undetermined (p. 256/250). Moreover, at the start of adventure people are aware they are dealing with something newer. Upon realizing *the* adventure, when adventure abruptly ends, people "ascribe" to the adventurous experience a "sharper" beginning and end than their other experiences (p. 256/250/244/245). In memory, the bounded adventurous experience is a "brief summary" that fades like a dream with time (p. 245).

In Simmel's terms, for *the* adventure to occur, people *in* adventure materialize (realize, transform, shape) "the substance of life" to newer "content" by synthesizing "fundamental categories of life" (p. 247/253/248). The process of shaping substance to

content is analogous to a person ‘constructing’ a newer sense of self. Substance, one might say, is ‘immaterial’, and is associated with ‘subjective’ and ‘spiritual’ aspects of being human. Substance is shaped in adventure, authenticates the self by changing the self, and gives *the* adventure its significant meaning (p. 244/246). In opposition to substance:

Everything present in the individuals (who are the immediate, concrete data of all historical reality) in the form of drive, interest, purpose, psychic state, movement—everything that is present in them in such a way as to engender or mediate effects upon others or to receive such effects, [is designated] as the *content*, as the *material*, as it were, of sociation. (Simmel [1917] 1950:40-1 emphasis added)

*In* adventure, the substance of life is ‘cognitively’ (it is more than this term permits) materialized to newer content from moment to moment from an existing position of content, that is, from an existing self (Simmel [1911/1919] 1959).

Only when adventure ends can the content from it be reflected on in its entirety and thought about as *the* adventure, because during adventure, people are immersed in the absolute present. They are attuned to “the process of life”, it’s “rhythm” and “antinomies”(p. 254). The fascination of adventure is “the adventurous *form of* experiencing it, the intensity and excitement with which it lets us feel life in just this instance” (p. 255 emphasis added). Simmel suggests that some people’s temperaments and “life conditions” are oriented to the absolute present, to adventure, more than others (p. 246/250).

*In* adventure, people create newer content by synthesizing fundamental categories of life: chance and necessity, activity and passivity, certainty and uncertainty. *The* adventure achieves synthesis of substance to content between the categories of chance and necessity. Simmel suggests there

is in us an eternal process playing back and forth between chance and necessity, between the fragmentary materials given us from the outside and the consistent meaning of life developed from within. (P. 247)

*In* adventure, from existing content and an inner necessity to make meaning from life, people individually and consistently materialize parts of the world external to them to newer content (p. 247). In different words, they consistently materialize some substance to newer content from existing content. Their actions are therefore a reaction to what they experience driven by the necessity to make meaning from life (p. 247). The necessity may be “considered as physical, psychic, or metaphysical” (p. 252).

*The* adventure also achieves the synthesis of substance to content between the categories of activity and passivity, between what people conquer and what is given to them (p. 248). Concerning activity, people *in* adventure somewhat willfully accept the adventurous “opportunity” and “forcibly pull the world into” their individual selves (p. 248). Simultaneously, concerning passivity, people *in* adventure give themselves up “to the world with fewer defenses and reserves than in any other relation”, which are more connected to what is personally ordinary and for this reason defend people “better against shocks and dangers through previously prepared avoidances and adjustments” (p. 248). Subjectively, activity and passivity unite *in* adventure, seemingly into a single entity, which produces a sense of conquest for individuals (p. 249). This sense “owes everything only to its own strength and presence of mind, and complete self-abandonment to the powers and accidents of the world” (p. 249). People *in* adventure are exposed to worldly powers that can “delight” them, but can also “destroy” them (p. 249). The elements of activity and passivity seem accented to people *in* adventure.

*The* adventure also achieves the synthesis of substance to content between the categories of certainty and uncertainty. To some extent, people *in* adventure rely on personal strength, that they are certain of, but more on personal luck, that they are uncertain of; “more properly”, they rely on “a peculiar undifferentiated unity of the two” (p. 250). Simmel suggests that subjectively certainty and uncertainty unite in adventure, which produces a “sense of certainty” for individuals (p. 250). People *in* adventure act, “justifiably or in error”, as if they know the outcome of their activity with certainty (p. 249). They rely on fate, regardless of “unrecognizable elements of fate”, and risk their ordinary lives in partially unordinary experiences “as if the road will lead [them] on, no matter what” (p. 249-250). Simmel suggests that *in* adventure the “characteristic daring with which [people] continually [leave] the solidities of life underpins itself, as it were, for its own justification with a feeling of security and ‘it-must-succeed,’ which normally only belongs to the transparency of calculable events” (p. 250). For onlookers, this “seems insanity” because people *in* adventure appear to rely on fate with ““sleepwalking certainty”” (p. 250).

Simmel contends that the subjective unities that are sensed *in* adventure “fall apart into completely separate phenomena” in experience and rational analysis, that is, once a person has materialized adventurous experience and rationally analyzed the adventurous experience (p. 250). This seems to result in general implications for *the* adventure in relation to age. The “subjectivity of youth” is generally centered on the immediacy of life, the absolute present, the process of life, its rhythms and its antimonies (p. 255). Simmel suggests the “material [(content)] of life in its substantive significance is not as important to youth as is the process which carries it, life itself” (p. 255). Elderly people

generally live in one of two other ways (p. 255). Firstly, their subjectivities may be centered on their own material (content) of life and its substantive significance, which was influenced to some extent by culture, *all* content. In different words, their subjectivities are centered on their own past experiences. Experience tends to shape people to various degrees until comfort is found in group ordinariness. Alternatively, elderly peoples' past experiences atrophy and "existence runs its course only in isolated petty details" (p. 255/257/253).

Simmel suggests that the absolute present for the elderly person who often focuses on their past experience "more and more appears relatively incidental" (p. 253-254). Associated with this idea, Simmel suggests the immediacy of life often starts to "slow up and coagulate" with age, and for this reason, the elderly tend to carry an historic, conservative mood "out of which immediacy has disappeared" (p. 253-254). Elderly people who are greatly attuned to their past experiences still shape "a substance of life" to content by reflecting on and contemplating the past experiences, because substance and content are reciprocal and underpin every moment, but the substance they transform is "a substance out of which immediacy has disappeared" (p. 245). Its "accent" is no longer on the "absolute present" (p. 254). The adventure's "atmosphere" is "absolute presentness—the sudden rearing of the life-process to a point where both past and future are irrelevant" (p. 245).

Nonetheless, some elderly people live in a third way. They transcend ordinary cultural content and individual content by experiencing adventure. Simultaneously, cultural content and individual content extend by the adventurous experience and they become culturally and individually authentic.

In addition to fundamental categories of life underpinning events of unordinary experience *in* adventure, the categories underpin ordinary experiences as well. Simmel states: “Viewed purely from a concrete and psychological standpoint, every single experience contains a modicum of the characteristics which, if they grow beyond a certain point, bring it to the ‘threshold of adventure’” (p. 255). At every moment, to various degrees, people rely on fate and personal strength and treat the incalculable as calculable and make meaning from life. As if they were one and of the same thing, the interplay of subject and object, illusion and reality, immaterial and material, substance and content, similarly defines ordinary moments (p. 256-257). As suggested, there is always a blending of substance and content. *The* adventure, however, is significant because people materialize an amount of newer content *in* adventure, which when considered in memory as a sharply bounded experience at the end of adventure, is noticeably different when analyzed alongside reflections of what is personally ordinary.

Some ideas in “The Adventure” are useful for this thesis. I use ideas from the essay to describe how wildland firefighters sometimes experience life and how some of their experiences influence them to develop toward sharing values about human behaviors within their cultural group. Simmel implies in “The Adventure” that: people are individually authentic but culturally similar by way of their lived experiences; the more a person routinizes and rationally analyzes an activity the less adventurous it becomes for the person; people can experience adventure that is similar to already materialized cultural content; people can perceive adventurous experiences of different durations; and, the self is an ongoing construction. These ideas are used in the thesis. I later show that wildland firefighters become culturally similar with time in terms of how

they value and address human behaviors and the knowledge they possess. I similarly use the idea that human experience can become less adventurous by showing consequences of knowledge production among wildland firefighters. I show that very new wildland firefighters can experience adventure within a wildland fire management culture because they normally have not yet created much knowledge about managing wildland fire within the culture. Relatedly, I demonstrate how the self is an ongoing construction partially by knowledge production. As indicated in Chapter 1, the idea that trying newer activity willfully (to some extent) is a danger to the self, for it can change the self, is a definition of risk taking guiding this thesis. Associated with this idea, I later expand on the notion that when wildland firefighters are in very new situations, risk is increased and concealed because the wildland firefighters have little knowledge of similar situations.

Such situations involve trust. Concepts of trust can be identified that underpin every moment of self-construction, no matter its vastness. On “The Adventure”, Vester (1987) suggests:

According to Simmel, the adventurer intends to leave the secure world of everyday life and challenges fate by stepping into the realm of uncertainty. But the attractions of facing risk and danger rest on trust in fate which gives security within insecurity. Seen by an outsider, the adventurer’s behaviour may appear irrational. But the adventurer is not irrational. (S)he may play at higher risk, but this seems to cause no problems to him/her, since (s)he believes in the chance of winning, whatever the ‘win’ may be. (P. 238)

Simmel ([1911/1919] 1959) proposes that trust in fate is fundamental to experiencing life. This idea is partly illustrated by people in adventure trusting their personal strength and personal luck. While these are important assumptions in Simmel’s philosophy, “The Adventure” lacks a detailed analysis of them. Personal strength, personal luck, and fate are extremely broad terms. Their scope could create infinite meanings, from concepts

about trusting the ground one stands on, to concepts about when one's trust in their personal strength wavers, to concepts about how one trusts another person. Their scope allows me to conceptualize four types of trust—self-confidence, behavioral trust, wholehearted trust, and mutual trust—which are seemingly fundamental to self-construction among wildland firefighters. Ideas in the second perspective of risk taking I present, those in Goffman's (1967b) "Where the Action Is", supplement the concepts of trust.

#### ERVING GOFFMAN

"Where the Action Is" is centered on risk taking mostly in the context of American society (p. 192). One of Goffman's objectives with the essay was to describe the ritual behaviors of face-to-face interactions as gleaned from empirical data (Goffman 1967a:1). Descriptions are thus provided in the essay on the ritual behaviors of people who take extraordinary risks in comparison to most other people. A particular focus is applied to adolescent males who criminally 'act out' (p. 214). However, because soldiers, gamblers, matadors, boxers, miners, surfers, and similar others, experience the ritual behaviors, they are captured in the essay (Goffman 1967b:172-174/203/214). Goffman's second objective with the essay was to describe the normative behavioral order "within and between" the ritual behaviors, a ritual order in its own right, sometimes known as "the interaction order" (Goffman 1983), which pervades every cultural and historical context (Goffman 1967a:1-2). Descriptions are thus provided in the essay on the prevailing structure of face-to-face interaction.

Regarding both objectives, Goffman wanted to identify social rituals people must learn and follow to successfully interact with others in an orderly manner (p. 1-3). Two

ideas predominately direct the essay within these terms: what are the consequences of action and what must people have to be useful in society (Goffman 1967b:167/259). In the essay, the former is mostly centered on reputation. The latter is mostly centered on habituated rituals that are often performed unthinkingly.

Goffman suggests there are reciprocal “obligations” and “expectations” regarding behavioral conduct during face-to-face interaction (p. 241). Formulated “ideally”:

When two persons are mutually present, the conduct of each can be read for the conception it expresses concerning himself and the other. Co-present behavior thus becomes socially legitimated, so that every act, whether substantive or ceremonial, becomes the obligation of the actor and the expectation of the other. Each of the two participants is transformed into a field in which the other necessarily practices good or bad conduct. Moreover, each will not only desire to receive his due, but find that he is obliged to exact it, obliged to police the interaction to make sure that justice is done him. (P. 241)

Each person reads and judges their own and others behavior from a moral stance and generally acts from these realizations to protect their own self and those of others out of mutual respect (p. 169/241). They do so because people are vulnerable to the destructive powers they possess (p. 169). People can personally undermine or destroy their own self, as well as others selves, and people can manipulate situations to take advantage of others.

As suggested, a consequence of face-to-face interaction is reputation, which has relevance to how a person acts in face-to-face interaction.

Of the various types of object the individual must handle during his presence among others, one merits special attention: the other persons themselves. The impression he creates through his dealings with them and the traits they impute to him in consequence have a special bearing on his reputation, for here the witnesses have direct personal stake in what they witness.

Specifically, whenever the individual is in the presence of others, he is pledged to maintain a ceremonial order by means of interpersonal rituals. He is obliged to ensure that the expressive implications of all local events are compatible with the status that he and the others present possess; this involves politeness, courtesy, and retributive responses to others’ slighting of self. (P. 168-169)

Goffman suggests that reputation encourages people to come to social situations with “some enthusiasm and concern”, for if they did not, “society would surely suffer” (p. 238-239).

The possibility of effecting reputation is the spur. And yet, if society is to persist, the same pattern must be sustained from one actual social occasion to the next. Here the need is for rules of conventionality. Individuals must define themselves in terms of properties already accepted as theirs, and act reliably in terms of them. (P. 239)

If people did not act reliably, social organization, supported by interpersonal rituals for proper interaction, would disorganize (p. 169). For all these reasons, there are risks and opportunities of various configurations during face-to-face interaction (p. 168).

This general structure of interaction operates when people perform the ritual behaviors associated with extraordinary risk taking, an activity that involves a four-phase temporal cycle in the following order: the squaring off phase, the determination phase, the disclosive phase, and the settlement phase (p. 154). In the squaring off phase, people must be in, or be forced into a position to make a commitment; to let go of some control to fate. Their participation is to some extent based on choice and people usually put a value on the anxiety and excitement the activity may produce (p. 152/157). The determination phase starts when a commitment to let go of some control to fate is made, and includes the time when forces controlling the outcome of the activity are at work to create it. Such forces are bound to concrete laws. Depending on the situation, participants can influence the outcome of the activity to various degrees, although, they are usually passive (p. 208). A “slight camaraderie is generated” when many participants are responsible for the outcome and are exposed to fate together (p. 210). The disclosive phase starts when the outcome is ultimately determined and ends when the outcome is

revealed to participants. The settlement phase starts when the outcome is revealed to participants and ends when losses are paid up and participants have collected gains (this includes gains and losses associated with reputation). The payoffs have a “socially ratified value and a subjective value” (p. 159).

Participants maintain a subjectively “continuous stretch of attention and experiencing” in the purest cases of risk taking because the ultimate outcome of the activity and the activity itself are unpredictable (p. 155). They give themselves up to the passing moment from making a commitment until the settlement phase ends (p. 185/208). The purest cases of risk taking are central to “Where the Action Is”. They are the basis of fateful activity, namely, problematic and consequential activity (p. 164). Fateful activity is problematic because during the activity outcomes are unknown (p. 152). Fateful activity is consequential because settlement phase payoffs objectively influence the later life of the participant (p. 159).

I later use the idea that outcomes of wildland firefighting are partly unknown and that by managing wildland fire people create knowledge of others, which in consequence influences the trust they grant to others.

The purest cases of risk taking involve subjectively and objectively fateful situations (p. 153). Subjectively, people must sense that the activity is problematic and consequential (p. 216). Objectively, the activity must be problematic and consequential; people must give themselves up to the four-phase temporal cycle, uninterrupted, here and now (p. 261). People usually experience the determination phase over long durations of time in which they undergo additional risks, opportunities, and payoffs (p. 261). In

addition, people usually experience subjective fatefulness when situations are not objectively fateful. Both cases are not pure cases of risk taking.

The purest cases of risk taking can appear in three kinds of extraordinary fateful activity: dutiful, serious action, and character contests (p. 193). Dutiful fateful activity is the basis of occupations with extraordinary risk taking. People are socially obliged to some extent to undertake the occupations (p. 173-174/181-184). Somewhat conversely, there are activities that are socially defined as those people are under no obligation to undertake or continue (p. 184). Although external forces influence and permit people to accept and remain in occupations with dutiful fateful activity, and although sometimes people in the occupations wish they were in safer jobs, it is easy for them to cognitively construe and read their situations as practical gambles, as situations willfully undertaken (p. 182/171). For this reason, Goffman suggests it appears society gives people in these occupations “the illusion of self determinacy” for their willingness to take risks (p. 184). However, as suggested, the amount of choice people have in undertaking the occupations varies. The most choice they have in undertaking the occupations occurs when they first accept the job (p. 184). Afterwards, granted they remain employed, they are more subject to the social worlds they have entered, which involve codes of acceptable and unacceptable behavior, the development and maintenance of reputations, and conceptions of capacities that contribute to reputations (p. 184).

Wildland firefighting closely aligns with the notion of dutiful fateful activity. I later use the idea that wildland firefighters enter social worlds and are subject to them, especially to attitudes about acceptable and unacceptable human behaviors.

When people undertake problematic and consequential activity “for what is *felt* to be” its own sake, they undertake action (p. 185). How serious the action is “depends on how fully these properties are accentuated” (p. 185). When people are highly aware of “the probabilities involved”, are “realistically concerned over the consequences”, and are highly aware that the activity is avoidable, they undertake serious action (p. 153/185/194). Action is thus a measurement of the intensity of fatefulness (p. 187). It is a collectively known feeling about risk taking (p. 200-207). It is organizationally facilitated but people can also create it (p. 200-207). Some people are strongly oriented to action, undertaking the activity when it is available, and creating the activity when it is not. Some people are not so strongly oriented to action. People may repute others as action seekers in relation to the strength of their orientation (p. 252).

The character contest is a kind of fateful activity as well. Character contests inspire “authority, invidious position, dominance, and rank” (p. 241). They can occur in games and sports when competition is well matched. In such cases, outcomes are unpredictable and people are forced to push themselves to their limits to win (p. 240). Character contests can also occur in face-to-face interaction. They can occur when a person violates another’s rights, usually by breaking a moral rule, and the offended, in protecting their honor, seriously retaliates and challenges the offender, who, in response, pointedly does not accept the challenge (p. 242-243). The situation can transform into one in which each person engages in “providing evidence to establish a definition of himself at the expense of what can remain for the other” (p. 241).

During the three kinds of fateful activity, people exercise primary and secondary capacities that are judged and contribute to their reputations (p. 217). Depending on the

pursuit, people may need to exercise primary capacities such as care, balance, stamina, timing, perceptual judgment, knowledge of the odds, or aim (p. 216). In all pursuits, they exercise memory and experience (p. 216). Primary capacities can be created by training and exercised during unfateful activity (p. 216). People may “approve of, disapprove of, or be morally neutral towards” them and in contrast to secondary capacities they are not judged in extremes, “referring to failures no way expected or successes out of the ordinary” (p. 217-218). Similarly, I later show that wildland firefighters normally came very close to sharing values about human behaviors.

People may perceive their activity as fateful activity when the ordinary principled behaviors that they show to others break down or when they imagine “the consequences of failing or succeeding” (p. 216). If they perceive their activity in these terms, a “sense of danger to life”, as well as a sense of pressure and stress to perform, will be inspired (p. 216-217). This makes the execution of primary capacities difficult. In such occasions, secondary capacities appear that must be exercised if people are to manage themselves in the activity (p. 217). Secondary capacities are expressed in subjectively fateful situations and in subjectively and objectively fateful situations (p. 232).

Secondary capacities include courage, gameness, integrity, gallantry, and composure (p. 217). Courage, its various forms defined by what is risked, is the capacity to “envisage immediate danger and yet proceed with the course of action that brings danger on” (p. 218). At issue is “the actor’s readiness to face great risk” (p. 218). Gameness, from inner will and determination, is the capacity to “stick to a line of activity and to continue to pour all effort into it regardless of set-backs, pain, or fatigue” (p. 218). Integrity is the capacity to “resist temptation in situations where there would be much

profit and some impunity in departing momentarily from moral standards” (p. 219). Goffman suggests that no society could last long if “its members did not approve and foster” this capacity (p. 219). Gallantry is the capacity to be courteous to others when called upon (p. 220). It is usually consequential but not problematic in face-to-face interaction, however, sometimes it becomes problematic in fateful activity (p. 220). Composure is the capacity to maintain self-control, self-possession, or poise (p. 222). People may need to move smoothly when executing physical tasks; control their emotions in dealing with others; act mentally calm and alert; contemplate abrupt changes in fate without losing emotional control; sustain “bodily decorum in the face of costs, difficulties, and imperative urges”; and “withstand the dangers and opportunities of appearing before large audiences without becoming abashed, embarrassed, self-conscious, or panicky” (p. 222-227). Composure is “doubly consequential” because it influences the functioning of memory and experience, a primary capacity, and is alone a source of reputation (p. 222). Goffman suggests that it seems composure is a “concern and value” for many different cultures and is required for orderly and successful face-to-face interaction everywhere (p. 228). Being a “competent” interactant by maintaining composure is considered important and influences the outcome of interaction (p. 228-229).

Many secondary capacities are involved in wildland firefighting. I later use the more general idea that there are human behaviors wildland firefighters come to value and not value. I show that knowledge of how wildland firefighters behave can impact reputations, trust, and how risk is experienced.

Secondary capacities inform one's character and groups may use and value them in different arrangements (p. 214/229). They are "always judged from a moral perspective" (p. 218).

Evidence of incapacity to behave effectively and correctly under the stress of fatefulness is a sign of *weak* character. He who manifests average expected ability does not seem to be judged sharply in terms of character. Evidence of marked capacity to maintain full self control when the chips are down—whether exerted in regard to moral temptation or task performance—is a sign of *strong* character. (P. 217)

To judge secondary capacities and to comprehend personal experience when they are exercised, people employ a ritual frame of reference "regarding the nature of persons" (p. 234). The frame of reference is supported by prevalent folk-beliefs. Experiencing fateful activity grounds the frame of reference. Commercialized vicarious experience of fateful activity from exemplary stories, fiction, and myth does as well (p. 262/268/234).

Goffman identifies many prevalent folk-beliefs that support the frame of reference. First, with secondary capacities, unlike primary capacities, "a single expression tends to be taken as definitive" (p. 234). Second, there is the belief that "once evidence of strong character has been established, it need not be intentionally re-established, at least not right away" (p. 235). Third, there is the belief that "once an individual has failed in a particular way he becomes essentially different from that moment on and might just as well give up" (p. 235). Fourth, there is the belief that after long durations of time, those who failed can "suddenly acquire 'guts' and 'heart', and from that point on continue to have it" (p. 235-236). Goffman suggests, then, there is the belief that "character can be dramatically acquired and lost" (p. 237). Yet there is also the belief that character "refers to what is essential and unchanging about the individual—what is *characteristic* of him"

(p. 238). Nonetheless, some people may take risks because they believe character can be acquired and lost (p. 234-235/237).

People also possess beliefs on heroism learned from the “literary ideal” of the hero (p. 258). They can come to believe that heroes “confidently” express “costly” secondary capacities whenever possible, show “subterranean pride” in accepting “moral obligations”, and take “chances” (p. 258). Goffman suggests the “natural affinity” of the hero probably does not belong to participants of extraordinary fateful activity, but rather to most others of society who “vicariously participate” in their destiny (p. 266/268). For most people, extraordinary fateful activity is vicariously experienced and morally fantasized about (p. 267-268).

What is risked and possibly gained by fateful activity may be physical, financial, social, or spiritual, or any arrangement of them (p. 218). “Where the Action Is” is centered mostly on character being risked and determined. Goffman asserts:

[s]tatements (including mine) that action is an end in itself must be understood as locutions. The voluntary taking of serious chances is a means for the maintenance and acquisition of character; it is an end in itself only in relation to other kinds of purposes. (P. 238)

During fateful activity, character is risked, but there is opportunity to create it. For this reason, Goffman suggests it appears the appeal of risk taking is showing to oneself, and sometimes to others, character under trying circumstances (p. 237). People who are judged to possess strong character may be revered, honored, and given heroic status as moral payments. Such payments can be incentives for some people to take risks.

Adding to this argument, Goffman suggests that secondary capacities have been traditionally considered classic male virtues in western culture and males have been traditionally the participants in extraordinary fateful activity (p. 209). In contrast, classic

female virtues “presumably” involve “modesty, restraint and virginity, whose display would seem to compromise anything but action” (p. 209). For these reasons, some people may take serious risks to prove masculinity and may benefit in these terms. However, Goffman suggests people may express character by moral temptation or task performance (p. 217); the “standard for measuring the amount of a bet or prize is set by or imputed to the community, the public at large, or the prevailing market” (p. 156); and, people may individually value the same bet or prize differently no matter the socially ratified value (p. 156). Thus every person may view bets, prizes, risks, and opportunities differently. Their views are influenced by factors such as race, age, sex, class, and sexual orientation (p. 156-159/211/263-265). For all these reasons, some people may take serious risks not to prove masculinity, though they may benefit in terms of other’s perceptions of their masculinity.

Every person in one way or another exhibits secondary capacities in their lifetime. But Goffman suggests that most people participate in ordinary fateful activity, not extraordinary fateful activity (p.164-165). Moreover, Goffman contends that the hazards associated with fateful activity in the United States seem to have been mostly eliminated in occupational and domestic life (p. 260). Occupational life is likely consequential, because people are present, but not likely problematic, because activity is managed well. Fatefulness is usually organized out of occupational life to reduce unpredictability and to increase employee reliability (p. 163-164/260). Domestic life, however, can be problematic, because some people undertake recreational risk taking activities, although it is likely inconsequential, because most people spend time in ways with little effect of their reputations (p. 162-164). The ritual frame of reference guides most people away

from extraordinary fateful activity by reminding them of its possible costly outcomes (p. 166/258). In addition, participating in ordinary fateful activity rather than extraordinary fateful activity provides a greater sense of comfort and security (p. 174).

Fatefulness is therefore never fully avoidable. The self, the body, and the ordinary performance of well-managed activity are always vulnerable. However, Goffman contends this is usually masked by ritual behaviors performed unthinkingly (p. 164-168). As most people age, they learn to minimize, control, and protect themselves from fatefulness through adaptations to fatefulness. For instance, most parents teach their children to take “physical care”. Throughout their lives most people also learn providence and forms of insurance (p. 175). Systems of courtesy and etiquette against unwanted fatefulness in face-to-face interaction are examples of forms of insurance (p. 176). In consequence of learning, applying, and ritualizing adaptations to fatefulness: most people are organizationally influenced to forego extraordinary fateful activity; the fatefulness of ordinary activity is usually hidden; a basis for anxiety is created; and, people consider themselves and others reasonable (p. 176). People generally feel “remorse when something undesirable happens, the chance of which [they] would have failed to reduce, and disappointment when something desirable does not, the occurrence of which [they] had failed to assure” (p. 176). I later show that wildland firefighters similarly learn, apply, and ritualize adaptations to risk.

Although adaptations to fatefulness can conceal the hazards of ordinary activity, experiencing accidents or new activity can make people realize their actions were always fateful (p. 168/171). Experiencing new activity can transform a person’s own ordinary fateful activity into their own extraordinary fateful activity. This has implications in

relation to age. Younger people often experience new activity more than older people. There are many risks and opportunities to display secondary capacities as they age. Sometimes people exploit these opportunities from moral temptations to be revered and reputed in some way. For example, some adolescent males, who are not fully socialized to ordinary societal rituals, and who with age have increasingly gained capacity for destruction and manipulation, may undertake great risks against the status quo for their own benefit, within their cultural group (p. 170/212). They may undertake great risks to be reputed among their peers as strong men. Most people may consider that the risks they take are unacceptable, perhaps unlawful, although they may consider the risks that others take by the same rituals, but in different contexts, acceptable. Goffman suggests some people who deviate from the status quo on acceptable behavior can be half-admired by most people. They can be perceived as possessing bad but strong character (p. 259). One might say that notorious 'criminals' fit this perception (p. 260).

Despite whether people engage in extraordinary fateful activity against the status quo, there are consequences for those who build a life centered on the activity.

Extraordinary fateful activity becomes "blunted in a special way" when people undertake the activity regularly (p. 181). They adapt to the life.

The world that is gambled is, after all, only a world and the chance-taker can learn to let go of it. He can adjust himself to the ups and downs in his welfare by discounting his prior relation to the world and accepting a chancy relation to what others feel assured of having. (P. 181)

According to Goffman, however, people who persistently take risks cannot last long. But if society is to make use of them, they need not break under pressure.

The ability to maintain self-command under trying circumstances is important, as is therefore the coolness and moral resoluteness needed if this is to be done. If society is to make use of the individual, he must be intelligent enough to

appreciate the serious chances he is taking and yet not become disorganized and demoralized by this appreciation. Only then will he bring to moments of society's activity the stability and continuity they require if social organization is to be maintained. Society supports this capacity by moral payments, imputing strong character to those who show self-command and weak character to those who are easily diverted. (P. 259)

Those who take risks well can be revered, honored, and given heroic status by most people (p. 252).

Goffman suggests that whenever people feel stress and pressure in difficult situations and take command of themselves to achieve personal goals, or to sustain regulative norms, they can be revered (p. 259). Fateful activity, especially serious action, is a means to take command and to display styles of behavior under stress and pressure in the fleeting moment. For these reasons, Goffman contends that fateful activity is "often respectable", although "there are many character contests and scenes of serious action that are not" (p. 268).

Goffman warns that the connection between "action and character should not be pressed too far" (p. 233).

Those who support a morality are likely to feel that it can be carried too far, even though society may benefit from the example provided by extreme devotion. It must also be admitted that there are certain positively valued qualities of character earned by sticking to an undramatic task over a long period of time, and, consequently, conduct during any one moment cannot contain a rounded expression of the trait. Moreover, during dutiful fatefulness, as when men do battle, the self-distinguishing kind of intrepidity and grace exhibited by gamblers and race-track drivers will not be enough. As William James remarked in his praise of military virtues, there is a need to surrender private interests and show obedience to command. A crisis may call for not only those qualities of character that lead an individual to outdo others and set himself apart, but also for those that lead to his submerging himself into the immediate needs of the whole. Even self-interest may require the disciplined display of quite unheroic qualities...Finally, as already suggested, there are the qualities of character traditionally associated with womanhood. These oblige the female to withdraw from all frays in order to preserve her purity, ensuring that even her senses will be unsullied. Where the

action is required to ensure this virtue, presumably her male protector undertakes it. (P. 233-234)

Ideas in “Where the Action Is” are useful for this thesis. As suggested, I use the idea that people judge and repute others based on the human behaviors they express. I do not fully adopt Goffman’s ideas on reputation, especially that people seem to wholly act in accordance with the reputations they perceive others bestow them. Nonetheless, using Simmel’s ([1911/1919] 1959) ideas about people becoming culturally similar by experience (Goffman similarly complies with this assumption), I later show how wildland firefighters can come to gain cultural knowledge about ‘good’ and ‘bad’ human behaviors associated with managing wildland fire. Relatedly, I suggest how wildland firefighters can come very close to sharing reasons and approaches for evaluating human behaviors, the importance given to specific human behaviors, and values about specific combinations of human behaviors. I demonstrate that the knowledge wildland firefighters produce about their counterparts’ behaviors influences the trust they grant to them and how they experience risk.

I also use the idea that what is risked and possibly gained by fateful activity may be physical, financial, social, or spiritual, or any arrangement of them. I modify the term fateful activity to risk taking and similarly assume that risk taking is part of all activity. This definition of risk taking guides the thesis. I consider that Simmel’s definition of risk in “The Adventure” is subsumed in Goffman’s definition of risk taking.

Lastly, I use ideas about trust from the essay in this thesis. Like Simmel, Goffman suggests that trust in fate is fundamental to human experiencing. But while this is crucial to Goffman’s framework of risk taking, much detail about what trust in fate entails is not provided. To a great extent, Goffman relies on the assumption that people in face-to-face

interaction trust their own perceptions of how others repute them. Goffman also provides a description of when self-confidence is questioned and may waver and of people trusting others and their teachings about adaptations to fatefulness. I draw on the idea about self-confidence wavering in my conceptualization of self-confidence. I additionally show that wildland firefighters trust others based on their perceptions of others' normally exhibited behaviors and can trust the knowledge others teach them about avoiding risk.

MIHALY CSIKSZENTMIHALYI, ISABELLA CSIKSZENTMIHALYI, CHARLES HOOKER

Similar to Simmel's concept of the adventure and Goffman's concept of action, the concept of the optimal experience of flow includes some ideas on trust that are useful for this thesis. As a starting point to describing the flow experience, Csikszentmihalyi (1990) suggests that because people are subject to time, genetics, and environmental conditions, personally sensing control of one's life can seem limited. Through self-initiated activity in sport, intellectual pursuit, work, hobbies, and relations with others, however, the optimal experience of flow can be felt, a subjective phenomenon whereby action and awareness merge by intense concentration on the present moment in newer activity where situations are somewhat unknown and unexpected (Csikszentmihalyi and Csikszentmihalyi 1999). Flow can permit people to sense: individual control of their actions and their environments; that they are testing themselves; and, that they are transcending previous conceptions of themselves (p. 154).

Rather than an active awareness of control, one ceases to worry about losing control, as one often does in real life. This feeling is true even in situations where the objective dangers are quite real—hang-gliding, deep-sea diving, spelunking, race car driving, rock climbing—yet they are seen as predictable and manageable. Risktakers often claim that their enjoyment comes not from the danger itself, but from their ability to minimize it, from their feeling that they are able to control potentially dangerous forces. (P.155)

Flow can enrich people's quality of life, trigger happiness, and increase self-confidence. In groups that produce scientific knowledge, the possibility of flow occurring for group members can be enhanced when leadership and responsibility are shared, a situation that involves overarching leaders trusting the abilities of individual group members and providing them with autonomy (Hooker and Csikszentmihalyi 2003). The trust makes group members feel confident about their own abilities.

I later suggest that more experienced wildland firefighters can teach less experienced wildland firefighters to use their individual abilities to share responsibility for addressing risk. Seemingly, this can lead to situations in which they can all experience flow.

To experience flow, people must locate a harmonious balance between challenge and skill and boredom and anxiety (p. 9). Csikszentmihalyi and Csikszentmihalyi (1999) suggest that challenge and skill are synonymous with risk and competence. Perceiving a challenge is too little for one's skills makes one bored. Perceiving a challenge is too great for one's skills makes one "frustrated, anxious, or overwhelmed" (Hooker and Csikszentmihalyi 2003:9). When a harmonious balance is located, people in flow are not concerned about failing to achieve their overall goals. Because of their intense focus on the immediate activity, the "possibility of failure cannot stand in the state of flow because a person's concentration simply excludes it from consciousness and replaces it with a sense of control born out of a certainty for what must be done next" (p. 10). In flow, people move towards overall goals and establish "clear goals every step of the way" (p. 9). They "know what their next move is and are anticipating the next several moves to

follow” (p. 9). They use feedback from the activity to gauge if they are meeting requirements for goal achievement (p. 9).

In many cases, relevant feedback would be obvious to anyone, but in others it is the cultivated expertise of the individual that affords him or her the ability to interpret environmental conditions and responses as useful feedback. Whichever the case, clear feedback allows people to modify their actions and exercise their abilities effectively. (P. 9)

People focus on, and act and react to, “relevant information and stimuli” for goal achievement (p. 10). Distractions and irrelevant information are excluded from view (p. 10). Csikszentmihalyi and Csikszentmihalyi (1999) contend that in “play and leisure activities, the rules of the game tend to perform this function”, whereas in “less structured activities, certain routines and settings facilitate the limiting of the stimulus field and the keeping of attention on what is going on” (p. 154).

Because people concentrate intensely in flow, reflective self-consciousness disappears and awareness of the self “comes only in the form of relevant feedback” (Hooker and Csikszentmihalyi 2003:11). Csikszentmihalyi and Csikszentmihalyi (1999) suggest that what is:

usually lost in flow is not the awareness of one’s body or of one’s functions, but only the self-*construct*, the ‘I’ as the actor or intermediary that a person learn to interpose between stimulus and response. A person making a difficult ascent has to concentrate on his mountain-climber role in order to survive and cannot afford to bring into question any other aspect of self. Even the possible threat from the mountain itself does not intrude because a good climber feels well-equipped to face the challenges presented to him, and does not need to bring the self into play. (P. 155)

Thus, in flow, people do not “worry about how they appear to others” (Hooker and Csikszentmihalyi 2003:11). Losing the self-construct can involve people experiencing greater awareness of internal processes and altered perceptions of materiality. This may involve sensing oneness with external environments; it may appear that everything is

working together towards one goal (Csikszentmihalyi and Csikszentmihalyi 1999:155). People may sense time in disorderly ways as well. When time is irrelevant feedback, it evades consciousness and passes quickly. When time is relevant feedback, it is central to consciousness and passes slowly. Csikszentmihalyi and Csikszentmihalyi (1999) contend that this “lack of preoccupation with the self, this loss of self-consciousness paradoxically allows people to expand their self-concept: what emerges is a feeling of self-transcendence, of the boundaries of the self being expanded” (p. 155).

While people may undertake activities for extrinsic rewards, once people start to enjoy the activities and experience flow, they often continue their participation for what the activities offer to them (Hooker and Csikszentmihalyi 2003:11). The activities become ends in themselves (p. 11). But while pleasure and reward can be sensed from experiencing flow, people should not expect to feel the optimal experience immediately upon undertaking an activity. People must first learn to cope with their anxieties and become good at their selected activities. And even then, participation may never be pain free or easily executed (Csikszentmihalyi 1990).

The flow model suggests that to derive enjoyment from life reliably requires the ability to get into flow. This in turn depends on a capacity to structure interaction with the environment in a way that facilitates flow. Specifically the characteristics of the autotelic experience correspond to capacities to (1) focus attention on the present moment and the activity at hand; (2) define one’s goals in an activity and identify the means for reaching them; and (3) seek feedback and focus on its informational aspects. In addition to these abilities, the dependence of enjoyment on a balancing of challenges and skills suggests the importance of a capacity to continuously adjust this balance by using anxiety and boredom as information, and identifying new challenges as skills grow. Being able to tolerate the anxiety-provoking interactions that test one’s skills also appears to be important. Finally, other attributes are likely to have an effect outside of the particular interaction; among these would be the ability to delay gratification, which is necessary for the eventual enjoyment of activities that require significant investment of energy before they start providing intrinsic rewards. (Csikszentmihalyi and Csikszentmihalyi 1999:157)

From my reading, there are no studies situated in the literature on risk taking that apply the concept of flow and focus much attention on types of trust among groups. This may be the case because writings about the concept usually highlight individual experience and emphasize self-confidence about perceptions of one's own abilities. However, focusing more attention on types of trust aside from self-confidence, that are intermixed with self-confidence, may extend assumptions about what is required to experience flow. Perhaps, for example, relying on others who are present during group activity increases one's confidence in one's own abilities despite that one's abilities are pitiful for the ultimate challenge. It seems, nonetheless, that the concept of flow is also limited in its capacity to account for experiences that require less focused attention, involving types of trust associated with entities such as groups and organizations, but that influence self-construction processes.

Regardless, there are ideas about self-confidence in conceptualizations of flow that are useful for this thesis. The ideas that people sometimes do not worry about losing control, and see danger to the self as predictable and manageable, because they perceive that their skills match challenges, are explored in this thesis. I later show that the creation of knowledge among wildland firefighters can facilitate these experiences. Relatedly, the idea that people can feel certain that they know what they are doing and what they need to do to achieve goals is explored in this thesis. In relation to self-construction and routinization, the ideas that people can develop skills by experience, and that experience in consequence can make people feel more confident, are also explored in this thesis. These are similar to ideas in "The Adventure". In addition, the idea that people can feel

confident about their abilities when they perceive that their overarching leaders trust their abilities is explored in this thesis.

The concept of flow is primarily centered on people experiencing a subjective phenomenon in activities once they have gained experience doing the activities. Such experience can permit them to perceive cues in the activities that influence their behaviors towards overall goals. The next perspective of risk taking, edgework, includes similar ideas about how humans can experience life, but is primarily centered on people in novel high-risk activity and reasons why people are increasingly undertaking high-risk activity in the United States.

#### STEPHEN LYNG

The edgework perspective offers an interpretation about why people voluntarily participate in high-risk activities. Edgework is a “classifying category for voluntary risk taking” (Lyng 1990:855). Edgework activities “all involve a clearly observable threat to one’s physical or mental well-being or one’s sense of an ordered existence” (p. 857). The “archetypical” and “quintessential form of edgework” appears in “death-defying” activities such as rock climbing, skydiving, and car racing, in which “failure to meet the challenge at hand will result in death or, at the very least, debilitating injury” (p. 857). In “abstract terms”, edgework primarily involves “the problem of negotiating the boundary between chaos and order” (p. 858/855). The ‘edge’ in edgework represents boundary lines that people approach in edgework. The lines can be diversely defined, for example, those between “life versus death, consciousness versus unconsciousness, sanity versus insanity, an ordered sense of self and environment versus a disordered” sense of self and environment (p. 857). Sometimes people approach multiple lines in edgework

simultaneously. Lyng suggests that “edgeworkers” often try to get as close to them as possible (p. 862).

Edgework sensations are experienced when people come close to boundary lines. The sensations are most pronounced in “true” and “pure” edgework, where challenges are not mundane and participant behavior is “automatic and unplanned” (p. 860-886). True edgework “involves completely novel circumstances” (p. 878). Edgeworkers try to position themselves in these situations.

While different edgework activities produce different edgework sensations, and while edgework sensations vary in intensity from one edgework activity to another, people commonly describe the sensations similarly (p. 860). From most edgework activities, people say the experience generates a sense of self-realization, self-actualization, or self-determination (p. 860). From pure edgework situations, Lyng contends that people are left with “a purified and magnified sense of self” because they “experience themselves as instinctively acting entities” (p. 860). From many edgework activities, people say they experience a “specific sequence of emotions” (p. 860). In quintessential edgework, people usually feel much fear in anticipating the experience to come, which “gives way to a sense of exhilaration and omnipotence” as the experience ends (p. 860). After surviving the challenge, they feel “capable of dealing with any threatening situation” (p. 860).

Other edgework sensations involve changes to “perception and consciousness” (p. 860-861). People say that as they come close to boundary lines, their perceptual fields become highly focused on stimuli for determining success or failure. Irrelevant stimuli disappear from view (p. 861). Under these circumstances, people may sense time passing

“either much faster or slower than usual” and “cognitive control” over objects or identity with them (p. 861). Moreover, many people also say that the experience is “ineffable” and often that the experience is “much more real than the circumstances of day-to-day existence” (p. 861).

Lyng uses the edgework sensation descriptions and a Marx-Mead theoretical framework to suggest what “makes risk taking *necessary* for the well-being of some people” in the United States, a country that features a contradiction between “the public agenda to reduce the risk of death and injury and the private agenda to increase such risks” (p. 852). Before presenting Lyng’s suggestion, however, I introduce the Marx-Mead theoretical framework that Lyng relies on. In particular, Lyng relies on a dialectical opposition in works by Marx and Mead.

Lyng contends that there is a dialectical opposition between spontaneity and constraint in works by Marx and Mead that makes the theoretical framework possible. Marx and Mead both depict the self as constrained and spontaneous. They both depict spontaneous human action as spurring from constrained human action. For Marx, the creation of self includes assuming constraints associated with labor, the unraveling of historical stages of labor, and the effects of the division of labor on social relationships (p. 866-867). It also includes developing human capabilities through a specific type of work, and interaction between humans and environments (p. 868). While “work under capitalism contributes very little to the development of human capabilities”, insofar as it “reduces the individual to an appendage of the machine”, thereby alienating them from their “species nature”, human capabilities can be developed by spontaneous, free, creative activity in work that arises when systemic, constraining conditions assume “a historically

unique character—when workers possess the power to organize the work process in a way that reflects their own human needs” (p. 868-869). The ‘work’ in edgework refers to this creative activity. The creative activity requires planning and “appears phenomenally” as purposive, mentally and physically flexible, conscious, rational, social, concentrated, and skillful (p. 867-881).

Mead uses the concepts of the ‘I’ and the ‘me’ to analyze the self. The creation and externalization of the self includes assuming the general attitudes of others in the ‘me’ aspect of the self, which is constraining (p. 867). The ‘me’ influences how people interpret and potentially act in social situations and it develops with age, first through interaction with significant others, later through interaction with a larger community (p. 866-869). Lyng suggests that while “the ‘me’ involves the covert, interpretive phase of the social act, Mead’s concept of the ‘I’ refers to the actual response of the individual to this process of interpretation—the overt phase of the act” (p. 867). The ‘me’ is “always rooted in expectations acquired in past interactions between self and other” (p. 867). The ‘I’ “exists only in the immediacy of the present moment. It has awareness of itself only as a memory image, only after it has been integrated into the ‘me’” (p. 867). The “I” moves “the individual into the future” and is the “continually emerging, spontaneous, impulsive, and unpredictable” aspect of the self (p. 867). Lyng suggests that the “creative potential of the ‘I’ typically leads the individual to assign special significance to this realm of experience” (p. 868). Using these interpretations of Marx and Mead, Lyng merges them by the following proposition: to increase the possibility of spontaneous, free, creative activity by the ‘I’, a person must first cultivate the general attitudes of the community in their ‘me’ (p. 869).

In connection with the Marx-Mead theoretical framework, Lyng suggests:

Because society and the individual form a mutually determinate, interpenetrating relation, divisions within the social system associated with class conflict, alienation, and the consumption imperative have profound implications for individual experience. People who are denied the possibility of fully realizing their species nature through material production and who are so separated from their fellow community members that they cannot live as part of a fully developed moral community do not possess the experiential resources needed for a unified definition of self. The paramount reality for the individual under these conditions then is a loss of ego. In the absence of a fully developed social self (involving not only 'generalized attitudes' but also a broad range of social and economic roles), the ego fails to develop fully. The predominant sensation for the individual is one of being pushed through daily life by unidentifiable forces that rob one of true individual choice. This experience can be conceptualized as 'oversocialization,' defined as a 'process in which the social world has become so reified that it becomes completely opaque to individual understanding and action' (Batuik and Sacks 1981, p. 210). (P. 869-870)

Lyng proposes, however, that alienation, "understood theoretically as the worker's estrangement from skilled activity and control over the productive process, is no longer represented archetypically by factory work" (p. 876). In "modern American society", there is a "general tendency toward" deskilling of work and most people are alienated from creative activity in all types of work (p. 864/877/880). I later show that wildland firefighters can develop many skills in their work and that some wildland firefighters strongly appear to and suggest that they experience creative activity in their work.

Given these ideas, Lyng argues that because people in the United States are constrained by "alienation", "reification", and "oversocialization", they are likely to undertake edgework in spontaneous opposition in search for self (p. 865-882). Lyng contends that constrained and spontaneous actions "exist in an opposed and *necessary*

relationship to each other” (p. 879). Edgework is creative activity, a type of “leisure pursuit” and “experiential anarchy” (p. 865/882).<sup>5</sup>

Nonetheless, people generally undertake edgework in response to workplace conditions (p. 877). However, Lyng suggests that because participation is often costly, requiring discretionary income, in general,

it appears that lower-income edgeworkers tend to gravitate toward more financially accessible activities such as high-risk subcultures (‘biker’ groups, ‘survivalists,’ etc.), or they completely reject highly alienating factory work or service work in favor of high-risk occupations such as police work, fire fighting, or combat soldiering. (P. 876)

In addition, Lyng asserts that edgework is “more common among young people than among older people and among males than among females” because “adolescents often harbor an abiding sense of their own immortality” and males are “more likely than females to have an illusory sense of control over fateful endeavors” (p. 877/ 872-873). This is the case, because males are socially pressured “to develop a skill orientation toward their environment” (p. 872-873). They are “encouraged to use their skills to affect the outcome of all situations” (p. 873). For these reasons, the illusory sense of control, which makes edgeworkers “behave as if they could exercise control over events that are actually chance determined”, may make males underestimate and undertake risk (p. 873-874).

But any person who participates in edgework may further develop “the illusion of control” (p. 873). The illusion is associated with a unique edgework skill. Although

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<sup>5</sup> Lyng (1990) expresses constraints of modernity in the following additional ways: “institutional roles”, “institutional self”, “internalized institutional routines”, institutional role behavior and enactment, the “dehumanizing...conditions of modern capitalism”, and “the dearth of possibilities for spontaneous and self-realizing action in the economic and bureaucratic spheres” (p. 865-882).

edgeworkers use activity-specific skills, such as those to test the limits of the body, the mind, the material form, and technology, or different arrangements of them, they claim to possess a “special ability” that “transcends” activity-specific skills (p. 859).

This unique skill, which applies to all types of edgework, is the ability to maintain control over a situation that verges on complete chaos, a situation most people would regard as entirely uncontrollable. The more specific aptitudes required for this type of competence involve the ability to avoid being paralyzed by fear and the capacity to focus one’s attention and actions on what is most crucial for survival. Thus, most edgeworkers regard this general skill as essentially cognitive in nature and they often refer to it as a special form of ‘mental toughness.’ (P. 859)

Lyng suggests the ability is used in response to pure edgework situations. Because using the ability involves responding to situations “automatically without thinking”, many edgeworkers consider it an innate survival skill (p. 859). They “seem” to “value” the opportunity to use the ability most, and they believe the ability determines the “success or failure” of meeting edgework challenges most, despite the fact that edgework is “to a large extent” chance determined (p. 870-871). Edgeworkers “generally reject” the latter notion, believing that the ability “ultimately” determines edgework outcomes (p. 871-872). That they survived edgework allows their beliefs to exist.

Lyng contends that there are consequences to how edgeworkers view the ability. Although they maintain some control in edgework, their beliefs about the ability may produce an inflated sense of self-competence (p. 873). In addition, when people die or are injured from edgework, some edgeworkers read the events as spurring from some people not having the skill rather than from some risks being beyond human powers to control (p. 872-873/859/874). The illusion of control influences their judgment. Such ideas are connected to “an elitist orientation among some edgeworkers” who consider few people to possess the skill and “who often feel a powerful solidarity with one another based on

their perceived elite status” (p. 860). Because edgeworkers consider the skill is universal to risk taking activities, their sense of solidarity sometimes extends to a large group and they usually try other edgework activities (p. 860).

As suggested, Lyng contends that people have opportunity to develop and use skills in edgework by creative activity, something that most people are alienated from in all types of work. Edgework, for instance, involves “planning”, “purposive and flexible action”, and “concentration” (p. 874). Before people engage in edgework, they prepare themselves and their equipment by planning. Lyng suggests that edgeworkers who are “killed or injured by hazards that could have been avoided through planning and attention to standard safety precautions” are not highly revered by their counterparts (p. 875). But while edgeworkers “seek a highly structured experience in which hazards can be anticipated and controlled”, they also “attempt to place themselves in a highly unstructured situation that cannot be planned for”, a situation in which the special survival ability is required (p. 875). Lyng suggests that planning likely plays “some role in maintaining the illusion of control”, that it may help support edgeworker’s belief of the innate survival skill, as well as their possible inflated sense of self-competence (p. 876). Edgework also requires a degree of purposive mental and physical flexibility for survival and safety that is not called for in “most other pursuits” (p. 874). The activity “involves circumstances that simply cannot be negotiated by relying on internalized institutional routines” and strategies must be made “on-the-spot” (p. 875). In true edgework, people concentrate on stimuli that matter for survival. They must respond to “minute changes” and anticipate “potential threats” (p. 875). Whereas in institutional life people perform daily routines “through forced concentration or mental detachment from the task at

hand”, edgework is unique because people often concentrate “automatically” to survive (p. 875). Whereas in institutional life people experience an absence of control, especially from “social-ecological threats” that increasingly make people sense “helplessness”, in edgework, as a “*rational* and therapeutic” response, people experience a heightened sense of control, although this is “largely illusory” (p. 873-874). Whereas in institutional life people enact roles they did not create, which inspires a sense of self-artificiality, in edgework they experience an authentic self (p. 883).

Lyng then uses an extension of Mead’s ‘I’ and ‘me’ concepts to explain edgework sensations. Drawing on theory from Blumer, Lyng suggests it is possible to sense a “residual, nonsocial”, spontaneous self when “reflective consciousness” is suppressed (p. 877-878). During true edgework, edgeworkers sense a residual self because they “must act instinctively rather than rely on the reflective process involved in everyday problem solving” (p. 878). There is no time to review “socially acquired knowledge”, and such knowledge cannot be used during completely new experiences.

The experience of self in edgework, then, is the direct antithesis of that under conditions of alienation and reification. If life under such circumstances leads to an oversocialized self in which numerous institutional ‘me’s’ are present but ego is absent, edgework calls out an anarchic self in which ego is manifest but the personal, institutional self is completely suppressed. (P. 878)

In consequence, ordinary cultural understandings are suppressed and extraordinary sensations arise. Once the “‘me’ is obliterated by fear of the demands of immediate survival”, the residual self generates a sense of self-determination and self-actualization (p. 878). Lyng suggests that self-determination and self-actualization are synonymous with a purified and magnified sense of self and a sense of omnipotence (p. 863). The residual self also makes describing edgework afterwards difficult because the activity

makes people experience the world as hyper-real. They may perceive alterations to materiality and time, which easily defy language (p. 880-882).

Lyng uses responses from edgeworkers to conceptualize self-actualization in the following way:

people feel self-actualized when they experience a sense of direct personal authorship in their actions, when their behavior is not coerced by the normative or structural constraints of their social environment. No longer impelled by intangible forces, their actions reflect the immediate desires and goals of the ego.

In association with this conceptualization, Lyng proposes:

my analysis would suggest that some members of modern society experience self-actualization in their commitment to occupation or religion because the constraining conditions of their occupational and religious participation approximate the ideal conditions specified by the Marx-Mead synthesis. A Marxian critique of capitalist society does not imply that work and social life are *uniformly* dehumanizing and degrading in the system: while the governing logic of capitalist production creates alienating conditions for most workers, other structural factors (e.g., perhaps those that are involved in certain types of professional work) may stimulate possibilities for real human growth and community in the workplace and other domains. It is important, however, not to equate the experience of self under these social conditions and the experience of self in edgework. (P. 879-880)<sup>6</sup>

Thus Lyng suggests that many people value and actively seek activity with “high potential for injury and death” because it is “the only means they have for achieving self-determination and authenticity” (p. 852/883).

In articles and chapters published after “Edgework”, Lyng offers additional interpretations about why people undertake high-risk activity (see: Lyng 2005a; Lyng 2005b; Lyng 2008; Lyng 2012; Lyng 2014). In one interpretation, Lyng (2008) suggests

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<sup>6</sup> Lyng classifies some occupations as edgework activities (p. 857). But this passage and those on why edgework was positioned in the category of leisure activities confuses the issue. This passage strongly suggests, alongside others in the article and Lyng’s work, edgework leisure pursuits generate a sense of self that ‘work’, ‘occupations’, and ‘religion’ cannot.

how edgework “might actually *align* with emerging structural forces and allow for a deeper expression of the kind of agency demanded by the new structural configurations” (p. 128). Lyng contends that societal changes associated with risk can increase “the prevalence of risk agency and consciousness” for people, which may lead them to take risks (Lyng 2012:412). Through this interpretation, edgework resembles the risks of everyday life and “is not focused on transcending the dominant reality” (Lyng 2008:130). Although many of Lyng’s interpretations appear to contradict one another, Lyng (2005a) suggests that they may not, because it is conceivable that “people may, on one level, seek a risk-taking experience of personal determination and transcendence in an environment of social overregulation, whereas on another level...employ the human capital created by this experience to navigate the challenges” of modernity (risk-society model) (p. 10). Regardless, Lyng argues that people are either pushed or pulled or both simultaneously to edgework by “opposing institutional imperatives”, which is referred to as the edgework paradox (Lyng 2008:122; Lyng 2005a:10).<sup>7</sup>

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<sup>7</sup> Lyng’s use and interpretation of theory by Marx and Mead is not necessarily Marxian and Meadian. The first may disagree with how Lyng assigned particular ideas to leisure. The second may disagree with the idea of sensing a non-social self as described by Lyng. In addition, it seems there are structural problems with the edgework concept. First, because quintessential edgework involves death or debilitating injury when people fail to meet challenges, and because people try to evade mundane challenges to completely novel situations, it seems most edgeworkers consciously push themselves closer and closer to death. The notion of the illusion of control muddies this idea. Second, if most edgeworkers are young ‘males,’ and there are more ‘male’ than ‘female’ edgeworkers, Lyng’s interpretation of edgework participation is unconvincing. Young ‘males’ may not have the life and work experience to oppose ‘modernity’. Many ‘females’ were working in the United States when Lyng was writing about edgework. And so forth. Third, the idea that ‘males’ are taught skills to affect the outcomes of all situations seems to apply to people generally. Others have also suggested structural problems with the edgework concept (see: Miller and Lyng 1991; Laurendeau 2006). Some of their suggestions are the same as mine in this note.

The edgework perspective offers ideas about self-confidence that are useful for this thesis. It seems to mostly provide an interpretation of overconfident people. I consider overconfidence is a feature of self-confidence in this thesis. The ideas that many people believe they possess innate survival skills to control danger and that the beliefs are connected to most people downplaying the notion that edgework outcomes are largely chance determined are explored in this thesis. The concept of the illusion of control, associated with these ideas, is explored as well. In its own particular way in relation to self-confidence, the concept may offer one variant of the argument I make in this thesis. That risk is sometimes concealed and increased. The illusion of control is similar to Simmel's notion of sleepwalking certainty and notions of control in the flow perspective. I later suggest that Lyng's notion of the illusion of control is greatly troubled by how wildland firefighters in this thesis came to view risk. Nonetheless, the idea that people can possess an inflated sense of self-competence is also explored in this thesis.

Similar to most perspectives in this chapter, the edgework perspective tends to provide some ideas about one concept of trust, in this instance, self-confidence. Different concepts of trust, for example, trust in others and people trusting one another, receive little to no attention. But such types of trust greatly contribute to self-construction among wildland firefighters and how they experience risk. Lupton and Tulloch's perspective of risk briefly includes some of these concepts of trust.

DEBORAH LUPTON, JOHN TULLOCH

Their perspective of risk is centered on interpreting discourses from “lay” and “expert” people. In *Risk*, Lupton (1999) suggests how the concept of risk “operates in western societies at the end of the twentieth century”, including its implications for how

people think of their “selves, others, organizations, institutions and governments and the non-human world” (p. 14). Lupton suggests that people perceive, understand, and give meaning to reality through discourses, through “bounded [bodies] of knowledge and associated practices” constituted by words or imagery (p. 15). Discourses are considered to be in flux and to permit “what can be said and done about phenomena such as risk” (p. 15). Moreover, Lupton considers that they are connected to historical, sociocultural, political, and economic contexts (p. 14).

Lupton contends that in “late modern” western societies, the dominant risk discourse is on risk avoidance.

[This] is strongly associated with the ideal of the ‘civilized’ body, an increasing desire to take control over one’s life, to rationalize and regulate the self and the body, to avoid the vicissitudes of fate. To take unnecessary risks is commonly seen as foolhardy, careless, irresponsible, and even ‘deviant’, evidence of an individual’s ignorance or lack of ability to regulate the self. (P. 148)

Risks are “almost exclusively” portrayed as “bad”, as that which is perceived as dangerous or threatening, inspiring fear and anxiety (p. 3/15). In consequence of individualization, which “emphasizes personal responsibility for life outcomes”, people are expected to personally avoid, manage, and contain risks, as well as the emotions that risks inspire (p. 3/107). Lupton suggests that this “appears to be acculturated very early in life” and that the “symbolic basis” of people’s “uncertainties is anxiety created by disorder” (p. 107/3).

Lupton uses risk discourses to propose the idea that transgression, hybridity, and liminality are risky because they challenge conceptual and cultural boundaries that people usually conform to, regulate, and police (p. 123-172). Transgression is moving beyond a limit. The hybrid “is that which combines two types thought of as distinct from each

other in such a way as to merge their characteristics into a new type, or the separation of a single entity into two or more parts, rendering each different from the other” (p. 132). The liminal “is that which represents a transitional middle stage between two distinctly different entities, identities or sites” (p. 133). Conceptual and cultural boundaries involve many dualisms: orderly and disorderly, controlled and uncontrolled, known and unknown, ordinary and unordinary, acceptable and unacceptable, civilized and uncivilized, predictable and unpredictable (p. 123-172). People generally consider the latter of each dangerous, and the former, safe. Race, class, gender, sexual identity, place, status, and age influence their assessments.

Conceptual and cultural boundaries are fundamental to how people construct ideas of “Self” against those of “Other”, especially in relation to the body. Lupton suggests, bodies that “are seen to transgress or blur culturally important boundaries are the source of confusion, fear, anxiety, and even hatred, revulsion and disgust” (p. 133).

[The] ideal notion of the human body in contemporary western societies is that which is tight, contained, exercising full control over its boundaries and what comes inside and goes outside. At its most extreme, this ideal seeks to disallow the very existence of the material body, seeking the perfection and purity of rational thought over the impurities of fleshy desires and needs. The white, able-bodied, bourgeois, heterosexual masculine body is valued as most closely conforming to this idea of the contained, ‘civilized’ body, while the bodies of women, the working class, non-whites, the disabled and gay men are set apart as the Other, for they are represented as incapable of fully achieving the mastery of the body. Such bodies are culturally represented as subject to the will of the flesh rather than that of reason, prone to emotionality, excessive desire, violence or disarray. (P. 130)

Lupton contends that people with more powerful and valued bodies in western societies may consider those with less powerful and valued bodies as threatening conceptual and cultural boundaries. Those with less powerful and valued bodies tend to be members of marginalized and stigmatized groups and they may consider people with more powerful

and valued bodies as threatening their conceptual and cultural boundaries. For these reasons, people from both positions may consider and label each other risky, at risk, and dangerous. However, such considerations and labeling can happen from any individual to another. The “Other”, “that which is conceptualized as different from self”, perceived as dangerous to “Self”, can inspire anxiety and fear (p. 124).

I later show that more experienced wildland firefighters can feel anxious and fearful when they are asked to work alongside very new wildland firefighters who they have little knowledge of.

Lupton extends the idea of “Other” to “Otherness” to account for additional conceptual and cultural boundaries. While “Other” and “Otherness” can make people experience fear and anxiety, they can also be a source of fascination, excitement, and desire (p. 147). Against the dominant risk discourse on avoidance, Lupton suggests there is a discourse portraying risk taking more positively.

Against the ideal of the highly controlled ‘civilized’ body/self is the discourse which valorizes escape from the bonds of control and regulation, expressing a hankering after the pleasures of the ‘grotesque’ body, the body that is more permeable and open to the world. This discourse rejects the ideal of the disembodied rational actor for an ideal of self that emphasizes sensual embodiment and the visceral and emotional flights produced by encounters with danger. (P. 148-149)

Lupton refers to the discourse as the discourse of release, and uses edgework as an example of the discourse.

[The discourse] draws on a number of related discourses, including those that portray too tight a control over the self as a source of stress and illness and loss of self-authenticity. Participating in activities that are coded as dangerous or risky can bring an adrenalin rush that allows aficionados to escape the bounds of the rational mind and controlled body, to allow the body’s sensations and emotions to overcome them for a time. There is a sense of heightened living, of being closer to nature than culture, of breaking the ‘rules’ that society is seen as imposing upon people. At such times, participants in such activities may attempt to experience

the sublimity of losing their selves in the moment, of transcending the constraints of ‘civilized’ behavior, as was championed by the Romantics in the eighteenth and early nineteenth centuries. For the Romantics, the turn towards emotion and feeling was important to avoid what they saw as the emotional sterility of modern life in its obsession with rational order and self-mastery. Contemporary discourses of release, often draw on neo-Romantic ideals, concerning the return to the authenticity of nature, the central role of emotion in self-expression (Lupton 1998: 81-2). (P.152-153)

Additional discourses are intermixed with the discourse of release. One is that the activity promotes development. To risk is to not be stagnated by risk avoidance, but to improve, change, and expand the self (p. 154/156). Another is that most people consider risk takers extraordinary. Risk takers are usually “admired for their courage and strength of will and power, their willingness to face danger, to gamble with uncertainty” (p. 155).

Risk takers, then, are portrayed as those who challenge conceptual and cultural boundaries. For example, in an extension of the edgework concept, Lupton uses ideas mostly from Durkheim to suggest that people who experience edgework together may sense collective effervescence, an intensely felt and unifying emotionality. In the activity, they may “lose a sense of their autonomous selves, becoming, at least for a brief time, part of a mass of bodies/selves with a common, shared purpose” (p. 153). Boundaries of “Self” and “Other” may seemingly merge.

Another example of challenging boundaries through risk taking involves gender and age. Lupton suggests that of

all social groups, it is probably young people, and particularly young men, who most often take risks as part of their everyday lives. Drinking to excess and taking other drugs, speeding in cars, engaging in petty theft and train-surfing are ways of adding thrills to life, testing one’s boundaries of fear and endurance, proving one’s adulthood and masculinity. (P. 157)

After introducing a study about adults’ memories of childhood, Lupton proposes that the arguments in the study suggest, in the “construction” and “performance” of masculinity,

“boys are almost expected to transgress, to misbehave and break rules and to endure punishment bravely for these transgressions” (p. 159). Girls, however, are “expected from an early age to be ‘more’ adult than boys – to act responsibly, to conform to adult rules and to be responsible for the wellbeing of others” (p. 159). After introducing a study about young men undertaking criminal activities and taking drugs, Lupton proposes that the arguments in the study suggest:

In a sociocultural context in which dominant forms of masculinity privilege the ability to keep one’s body/self separate from others, to be self-contained and autonomous, to be hard and dry, the opportunity to engage in risk-taking achieves several ends. Not only does it demonstrate courage and sometimes the enhanced capacity for self-control and bodily containment, it may also allow men to relax the tight control that is expected of them, if only for a short time and in limited ways. To engage in dangerous activities, for example, may demonstrate a man’s control over the emotions of fear, vulnerability and anxiety, proving to others and himself the expanded limits of his control of self and the body. At the same time it affords him the opportunity to experience and enjoy heightened emotion and exhilaration. Some other occasions of risk-taking, however, may involve letting loose emotions in ways that are seen to bolster masculinity: as in fighting, for example, or drinking in excess. Such activities allow men to test and define their boundaries of selfhood and embodiment through occasional excess (p. 159-160).

Overall, on the topic of men and women engaging in risk taking, Lupton maintains:

While men may engage in risk taking in the attempt to conform to dominant forms of masculinity, women’s concepts of risk taking are also highly related to assumptions about femininity...[R]isk-taking is less valorized for the performance of femininity: indeed, dominant notions of femininity tend to represent the careful avoidance of danger and hazard as important. Women are acculturated from a young age to avoid situations of danger and are represented as particularly vulnerable to such risks as sexual assault and mugging because of their gender. They are more often portrayed as passive victims of risk than as active risk-takers. (P. 161)

However, associated with these ideas, Lupton suggests:

While risk-taking has been most closely linked to the performance of dominant masculinities, and risk-avoidance is associated with dominant femininities, there is evidence of some shifts in these meanings. Dominant notions of linking certain risk-taking activities with masculinity have begun to be challenged by some

women, who have sought to perform alternative femininities through engaging in such activities. (P. 163)

By interpreting risk discourses such as those about men and women, Lupton provides suggestions about how people respond to risk. Lupton proposes that many “lay” people respond to risk by accepting personal responsibility for risk and making use of “expert” advice, which they evaluate and sometimes challenge (p. 108-110). When lay people consider expert advice irrelevant, distracting, inaccurate, or misleading, they may ignore the advice (p. 109-110). Thus responding to risk involves “cognitive judgments” (p. 122). Lay people also respond to risk from personal experience that is produced with others and is generally localized (p. 108/111). Membership of social groups and networks, access to material resources, location within the life course, and relations of power influence lay risk responses as well (p. 122). Lupton contends that “risk positions” are “often constantly shifting and changing in response to changes in personal experience, local knowledge networks and expert knowledges” (p. 113). I later show that wildland firefighters transfer and create knowledge with their counterparts and others about managing wildland fire, which then influences how they can experience risk.

Responding to risk also involves “aesthetic and hermeneutic judgments” acculturated from birth (p. 121). Using ideas from Lash, Urry, Merleau-Ponty, and Douglas, Lupton suggests aesthetic or hermeneutic reflexivity, reflexivity meaning “a response to conditions that arouse fear or anxiety that is active rather than passive” (p. 15),

is embodied in such aspects of life as taste and style, sense of time and space, consumption, leisure and popular culture and membership of subcultural groups. It is rooted in background assumptions and unarticulated practices and in intuition, feeling, emotion and the spiritual. This type of reflexivity involves the processing of signs and symbols rather than simply ‘information’. It is a product

of an individual's embodied 'being-in-the-world', in which knowledge about the world is developed through – and not just in relation to – the body (Merleau-Ponty 1962). Aesthetic reflexivity relies upon an individual's membership of a community, the moral and culturally learned and shared assumptions...Aesthetic and hermeneutic reflexivity is not rooted in self-monitoring, but rather in self-interpretation, involving intuition and the imagination above moral and cognitive judgment. It pre-exists the development of moral and cognitive judgments, and is based in bodily predispositions that are acculturated from individuals' entry into society (Lash 1993: 9-10). (P. 118)

Similarly, using Bourdieu's idea of habitus, Lupton suggests that lay people respond habitually to risk, "they do not consciously weigh up risks and benefits but rather include risk-avoidance as part of the habits of their everyday lives" (p. 122).

In *Risk and Everyday Life*, Tulloch and Lupton (2003) extend Lupton's (1999) ideas in *Risk*. They suggest dominant discourses that frame the meanings people impute to risks, what people consider risks, and how people manage risks. This is largely made possible by interview data with 'lay' people.

In interviews, many people spoke about risk taking when they were younger. They mentioned that it was not until later in life, when they looked "back from a position of greater maturity" and "caution that comes with age and increased responsibility", that they realized the activities they participated in were risky (p. 19). Many people spoke about undertaking riskier physical activities when they were younger, and some people spoke about how they were more careful as adults because they better appreciated and realized consequences of risk (p. 20). Tulloch and Lupton refer this as the "discourse of 'conservatism'" (p. 20). People often associated increased responsibility with family and employment situations, factors that led to increased risk avoidance. However, some people "felt less need to be cautious" after such responsibilities decreased (p. 25). Except for gay men, older people spoke more about "risks to their health" than younger people

(p. 23). But workplace health risks “was an issue that emerged as important for some people in industry or trade occupations” (p. 23). Mostly men spoke about workplace health risks because few women worked in these fields (p. 23). Some young women spoke about the risks connected to finding partners their parents would accept. Compared to men, women were more concerned about individual vulnerability to “violence and crime against the person” (p. 22). Men and women both spoke of risks in family, marriage, and romantic relationships. In addition, people spoke of risks related to sexual preference, sexual activity, moving to a new country, and finances.

Control, choice, and responsibility were important themes in interviews. Most people thought they could personally control risk to some extent (p. 29).

Associated with this idea was the belief that people should take responsibility for risk, and act to avoid it rather than blame others or expect others to protect them. This approach to risk and responsibility was particularly the case for people with significant cultural and economic capital, such as members of the well-educated middle-class. (P. 29)

Some people thought that risks were objective and that people could choose to take risks. In addition, people “were highly aware of the risks imposed upon them over which they had little control, and which therefore could not be managed effectively, but rather had to be left to fate to some extent” (p. 30). Thus ideas of responsibility, blame, and control were mixed with ideas of fate and lack of control (p. 32). Connected to these ideas, some people spoke about realizing “the extent to which control over risk was illusory” (p. 32). I later show that wildland firefighters viewed control and lack of control similarly, but viewed responsibility very differently.

Voluntary risk taking was a topic that people also spoke about in interviews. According to Tulloch and Lupton, when people consider they have “some” personal

choice in taking a risk and take it, the risk is taken voluntarily (p. 33). They suggest that people who felt the “most vulnerable as a result of age, gender, and exposure to actual or imagined bodily violence...had no attraction to voluntary risk-taking” (p. 103). However, once people sensed boundary crossings and the accompanying pleasures and benefits of them, their ideas about risk as something bad and to be avoided could be challenged.

Gender differences in relation to shared risk emerged in interviews when people spoke about risk taking. Tulloch and Lupton suggest that “shared risk” involves a sense of risk that is “spread out over more than one body/self”, representing a “blurring of identity” (p. 20). For example,

women with young children tended to describe their anxieties about physical risks to their children. They saw the risks their children faced as important to their own sense of security and wellbeing, and therefore, as also risks to themselves. In contrast, the risks of many men in early- or mid-adulthood and with families to support were financial or related to employment. This is another version of shared risk, because the future employment of these men affects their family, and they are highly aware of this. (P. 21)

The concept of shared risk extends the idea of risk about “Self” and “Other” to “Us” and “Other” (p. 104).

Tulloch and Lupton suggest there were three main discourses people used in interviews to describe the “pleasures and benefits of voluntary risk taking” (p. 37). One was the discourse of self-improvement. Another was the discourse of emotional engagement, which drew on the “neo-Romantic ideal of the body/self” (p. 37). Another was the discourse of control, which “in some ways counters that of emotional engagement in privileging control over one’s emotions and bodily responses as a valued aspect of engaging in risky activities” (p. 37). The three discourses “represent a life

without risk as too tightly bounded and restricted, as not offering enough challenges” (p. 37).

[Each is] underpinned by contemporary ideas about the importance of identity and selfhood. The notion of risk-taking as contributing to self-development, self-actualization, self-authenticity, and self-control, is part of a wider discourse that privileges the self as a continuing project that requires constant work and attention. (P. 37-38)

Lupton and Tulloch focus little attention on trust in relation to self-construction processes in their perspective of risk taking. Similar to other perspectives in this chapter, concepts of trust are partially identifiable in Lupton and Tulloch’s perspective, but only after some extraction. Once they are extracted, what appears, are underdeveloped ideas that necessitate examination. For example, similar to Goffman, Lupton suggests that men may engage in dangerous activities to prove their limits of control of their own emotions, and therefore control of their bodies and selves. What partially appears is the idea that some abilities are judged, valued, and admired positively and negatively. What remains somewhat concealed is that in consequence, people are liable to produce knowledge of others, which can influence types of trust involved in group risk taking and how risk can be experienced among group members. I later suggest how wildland firefighters create knowledge of their counterparts, which influences how they can experience of risk.

There are additional ideas in Lupton and Tulloch’s perspective of risk taking that are useful for this thesis. Lupton’s idea that people respond to risk by trusting their own experience produced with others is explored in this thesis. Lupton’s idea that how people view, experience, and respond to risk is often changing, is fundamental to this thesis. Similar to Simmel, though, I assume that to some extent people are always changing, not often. Together with Simmel’s ideas about routines, Goffman’s ideas about habits, and

Csikszentmihalyi and Csikszentmihalyi's ideas about routines, Lupton's idea that people respond to risk habitually is explored in this thesis. Habitual action constitutes a variant of self-confidence despite one's awareness of their behaviors. Tulloch and Lupton's ideas that most people think they can control risk to some extent and that some people were highly aware of risks they could not control are explored in the thesis as well. In addition, similar to Goffman's ideas that people can be exposed to fate together and collectively responsible for the outcome of risk taking during the determination phase, Tulloch and Lupton's concept of shared risk is explored in this thesis.<sup>8</sup>

#### A SHORT DISCUSSION

The five perspectives of risk taking in this chapter can assist in interpreting how wildland firefighters construct a sense of self in relation to risk. They suggest notions about risk taking, which wildland firefighters engage in routinely as part of their job. Similarly, they provide a theoretical basis on which to clarify what wildland firefighters are doing in their work. However, as demonstrated, trust receives inadequate attention in the five perspectives in relation to self-construction processes among people who participate in risky activities. Although the five perspectives allude to concepts of trust I develop in this thesis, trust is not the main focus of any perspective. Its influential power on human activity is often taken for granted through broad, general statements in the five perspectives. But trust is fundamental to social action. In the risk taking literature it

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<sup>8</sup> In this thesis, I am careful in using my reading of Lupton (1999) partly because at the theoretical level Lupton seems to greatly adopt dualisms from risk discourses, inflate the significance of individual sides of dualisms, and not necessarily always show that both sides and many more are always at work in situations in some way. For these reasons, and perhaps because Lupton seems to sometimes indiscriminately categorize people through what appears to be an attempt at applying an intersectional research approach, Lupton's (1999) interpretation of risk among humans seems quite divisive to me.

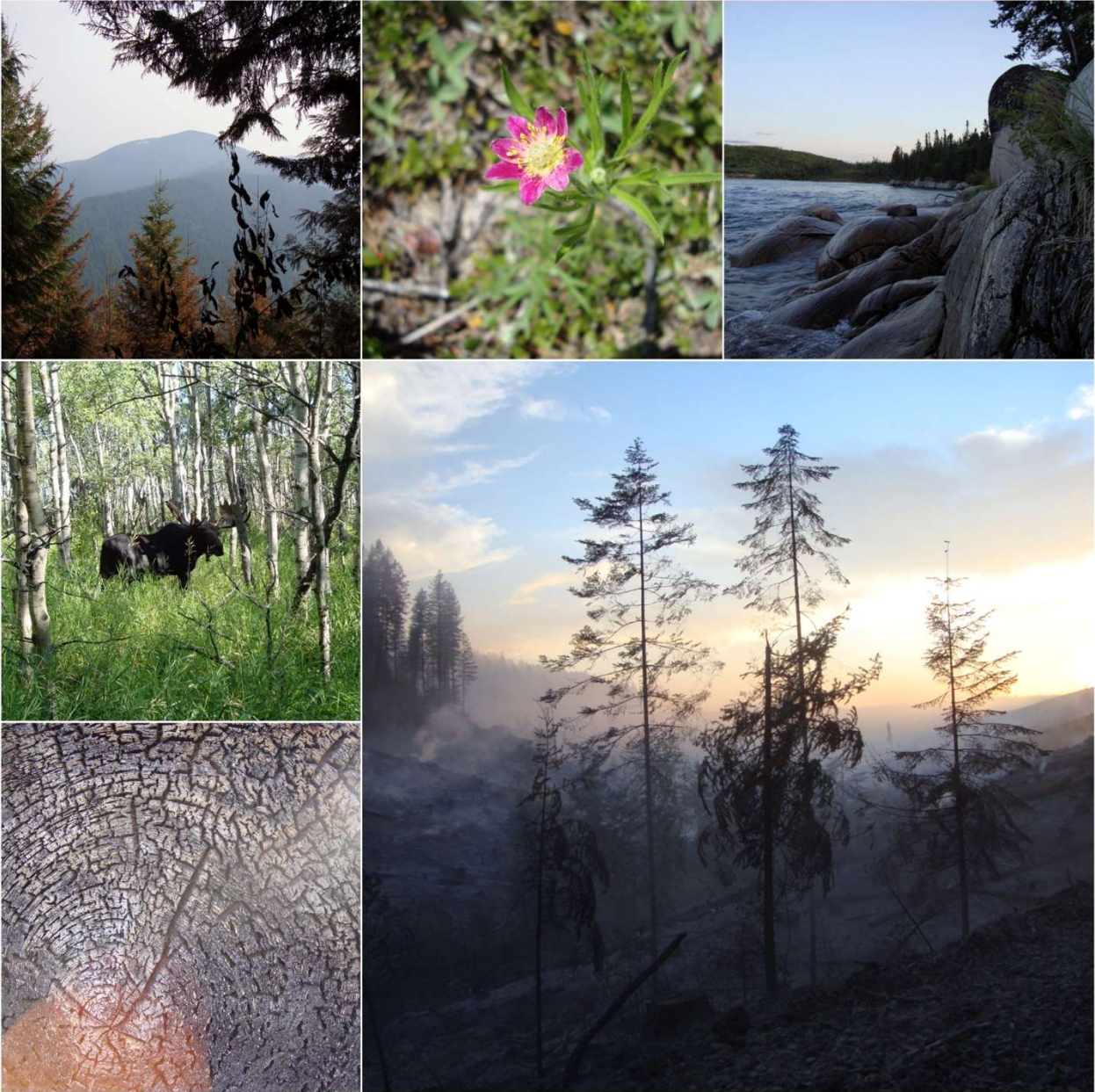
therefore requires much more attention and detailed examination. Walby and Doyle (2009) suggest that a “key subject for future research is how trust at the small group level mediates various understandings and emotions concerning risk” (para 5.6). A purpose of this thesis subsumes this suggestion. I aim to contribute to the risk taking literature by providing an interpretation about a general trajectory of being and becoming a person who takes risks, which shows the significance of trust in self-construction processes.

My theoretical contribution to the risk taking literature is the Simmel-Goffman framework I use to suggest how wildland firefighters in this thesis normally came very close to sharing values about human behaviors, reasons and approaches for evaluating human behaviors, the importance given to specific human behaviors, and values about specific combinations of human behaviors. I show how these relate to trust and self-construction. I also extend Simmel’s ([1911/1919] 1959) concept of the adventure by suggesting how wildland firefighters change after experiencing and rationally analyzing life in the context of managing wildland fire. I show how the changes relate to emotions, perceptions, and concepts of control such as ‘the illusion of control’ and ‘sleepwalking certainty’.

My conceptual contribution to the literature on risk taking is demonstrating how the interplay of concepts of trust can influence how risk is experienced. I show that the interplay includes many different entities. As suggested in Chapter 1, I specifically focus on how self-confidence, behavioral trust, wholehearted trust, and mutual trust, which are concepts of trust, influence self-construction processes and how risk is experienced. Each type of trust includes its’ own variations. How people relate to each, changes with time. In the process of being and becoming, how risk is experienced alters with changes in how

people relate to each type of trust. In this thesis, on the idea of relations of trust changing, I show that trust can strengthen and weaken in connection with different entities.

Detailing this aspect of trust, conceptualized as fractured trust, is part of my conceptual contribution to the risk taking literature. I later expand on the definitions of the concepts of trust. In the next chapter, I begin to detail concepts of knowledge, which relate to the concepts of trust, from historical literature about wildland firefighters and wildland fire management. The concepts of knowledge also contribute to the risk taking literature.





### **Chapter 3: Wildland Firefighters and Knowledge**

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Forest Ranger, Fire Ranger, Forest Fire Fighter, Wildland Firefighter, Wildfire Fighter, Smokejumper, Hotshot, Bush Fire Fighter, Grassland Firefighter, and Rural Firefighter are some titles that have been given to people whose main responsibility of employment is to directly manage burning vegetation on landscapes. I use the term wildland firefighter in this chapter to account for these names for work positions. Using sources published between 1902 and 2015, I present an image of how some authors have depicted human behaviors associated with wildland firefighting. Their content, as is reasonably practicable, should be read within their historical contexts (e.g., earlier quotes refer to a wildland firefighter as a man likely because at that time only men were hired as wildland firefighters).

One purpose for this chapter is to detail four, interrelated concepts of knowledge that have been and continue to be valued among many wildland fire management community members, and to show how these concepts of knowledge are subject to change with time and place. I developed the four concepts of knowledge through my review and analysis of primary data from historical documents. The concepts are: local knowledge, language knowledge, perspective knowledge, and facility knowledge (Kruger and Beilin (2014) propose a similar concept of local knowledge). Another purpose for this chapter is to use primary data from historical documents to begin to show how wildland firefighters can create knowledge through experience. Later in this thesis, I use interview data to extend this analysis. I show how the concepts of knowledge relate to the concepts of trust I began to develop in Chapter 2, self-construction, and how wildland firefighters can experience risk.

I use the term human qualities in this chapter to refer to commonly identified behaviors and characteristics that wildland firefighters engage in and express to different extents.<sup>9</sup> Such qualities are associated with expressions of theoretical and tacit (practical) knowledge, which are simultaneously involved in human experiencing (Polanyi 1966:7). Whereas theoretical knowledge involves knowing something more by abstract thought, tacit knowledge involves knowing something more by bodily processes in general. Tacit knowledge influences human action and perception, but is not fully perceptible in the immediate present and can never be fully described. It is the knowledge, for example, that permits wildland firefighters to move their bodies in ways that quickly and smoothly allow them to set up and start power pumps as they focus on many other entities of situations they are in. I use the ideas of theoretical and tacit knowledge throughout the thesis. I consider local knowledge, language knowledge, perspective knowledge, and facility knowledge as forms of theoretical and tacit knowledge.

This chapter is comprised of three main sections. In the first section, I show passages mostly from the 1905 edition of the United States Forest Service (USFS) publication *The Use of the National Forest Reserves*. The passages refer to many human qualities that are required to be and become a wildland firefighter, and in different

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<sup>9</sup> I understand that behaviors associated with being and becoming a wildland firefighter are human behaviors, some of which seem timeless. Who can be and become a wildland firefighter is determined more by the behaviors and characteristics informing specific human qualities than anything else. This is the case despite that at some points in time it may appear that other factors are determining who can be and become wildland firefighters, for example, gender, or general, societal views on gender. In assuming this perspective, I do not deny that views about factors such as gender, race, class, ethnicity, and age have inhibited and assisted people in being and becoming wildland firefighters. I also do not deny that such factors influence wildland firefighter identity and self-construction. I show this in later chapters.

contexts, seem to have always been valued in the wildland fire management community. The first section of the chapter is meant to introduce human qualities, which are then examined in more detail in later sections by descriptions of knowledge and training. In the second section, I describe and show the concepts of knowledge: local knowledge, language knowledge, perspective knowledge, and facility knowledge. In the third section, I suggest how wildland firefighters can create these types of knowledge by training.

#### A GENERAL SUMMARY OF HISTORICALLY VALUED QUALITIES

Many human qualities are identified in *The Use of the National Forest Reserves* that seem fundamental to being and becoming a wildland firefighter. The purpose of the document was to outline regulations and instructions to guide USFS workers as well as the public in the use of National Forest Reserves. The USFS was established in the same year the document was published. In one section, that outlines the general qualifications and duties of Forest Rangers, an organizational image is provided of the ideal candidate for Forest Ranger positions. It alludes to many human qualities that are usually valued in wildland firefighters.

To be eligible as ranger of any grade the applicant must be, first of all, thoroughly sound and able-bodied, capable of enduring hardships and of performing severe labor under trying circumstances. Invalids seeking light out-of-door employment need not apply. No one may expect to pass the examination who is not already able to take care of himself and his horse in regions remote from settlement and supplies. He must be able to build trails and cabins and to pack in provisions without assistance. He must know something of surveying, estimating, and scaling timber, lumbering, and the live-stock business. On some reserves the ranger must be a specialist in one or more of these lines of work. Thorough familiarity with the region in which he seeks employment, including its geography and its forest and industrial conditions, is usually demanded, although lack of this may be supplied by experience in other similar regions.

The examination of applicants is along the practical lines indicated above, and actual demonstration, by performance, is required. Experience, not book

education, is sought, although ability to make simple maps and write intelligent reports upon ordinary reserve business is essential.

Where boats, saddle horses, or pack horses are necessary in the performance of their duty, rangers are required to own and maintain them. (USDA 1905:88)

This passage suggests that great importance was given to wildland firefighters capacities to perform what the USFS perceived as requirements to manage wildland fire. Ideal wildland firefighters were expected to meet a level of cognitive and physical competence. They were expected to be capable of working effectively in difficult situations. They were expected to be able to live alone in remote areas and to possess knowledge and experience of specific landscapes. These were not the only expectations the USFS had of their wildland firefighters.

In another section of the document, that was intended to guide particular USFS workers in the temporary hiring of people to assist in extinguishing fires, ideal qualities to assess in potential wildland firefighters for temporary hire are identified.

In and about every reserve it is possible to enlist the cooperation of the better citizens, so that in time of need enough men of the right kind will be on hand. A crowd of men hastily gathered about a town, without organization, interest, or experience, is valuable only as a last resort in extreme need. (P. 71)

This passage suggests that the USFS perceived ideal wildland firefighters as organized, interested in the job, and experienced.

Ideal wildland firefighter qualities are identified in a section of the document titled 'How to Fight Fire' as well.

[O]nce a fire has spread over an acre or more, especially where much dead and down material makes it very hot, it may be so far beyond control of one man that it is best to leave it and get help. The character and conditions of the woods, the weather, and even the time of day, have so much to do with such cases that general directions have little value and all depends upon the experience and good judgment of the ranger. (P. 68)

Similar to the preceding passage, this passage suggests that the USFS perceived ideal wildland firefighters as experienced. However, it also suggests that ideal wildland firefighters could assess and plan how to deal with fire situations well, which involved understanding one's own capacity for dealing with immediate fire situations.

Additional ideal wildland firefighter qualities are identified in the same section of the document when the following advice is given to help people control fires: "A little thinking often saves labor and makes work successful. Ill-planned efforts suggested by haste and excitement rarely lead to success" (p. 69). This passage suggests that the USFS perceived ideal wildland firefighters could plan how to make work easier and more efficient. Making work easier involved one's physical fitness level, a human quality that is often valued in relation to meeting fire management demands (Kelly 1956; Jones 1902; Jackson 1911). The passage also suggests that the 'successful' implementation of 'good' plans, resulting in 'good' outcomes, was valued, and that this was typically the result of plans that were not influenced by excessive quickness and excitement. Thus, the USFS endorsed ideas about acceptable emotions for wildland firefighters when they managed fire. In different sections of the document, training and good leadership are identified as ideal wildland firefighter qualities (p. 63-67). Good leadership was thought to be displayed through directing workers well and communicating well (p. 63-67).

Ultimately, it seems that the wildland firefighter who was perceived as cognitively and physically competent; able to live alone in remote areas; capable of working effectively in difficult situations; knowledgeable; trained; experienced; organized; interested in the job; capable of leading and communicating with people effectively; and, able to assess fire situations, plan how to deal with them, and

successfully implement plans that deal with them well, was likely appreciated. It seems that the wildland firefighter who was perceived as being able to teach coworkers (Holmes 1948), prepared for the demands of wildland firefighting (Osborne 1934; Holmes 1948); and an exhibitor of goodwill (Holmes 1948), was likely appreciated as well. On goodwill, Holmes suggests:

In all things done and said the factor of goodwill should be borne in mind. There is no substitute for this at any time, but it becomes doubly valuable when adversity smites in the form of fire. A really live personnel officer with the gift of persuasion and the power to teach is an invaluable asset in forest fire preventive and fighting techniques. (P. 140)

Human qualities are often identified by such brief words and phrases in literature that involves wildland firefighters. I suggest that four types of knowledge underpin many of these human qualities, such as one's ability to live in remote areas, work effectively in difficult situations, lead and communicate effectively, and so forth. In the next section of the chapter, I conceptualize the types of knowledge.

## KNOWLEDGE

As suggested, in my review and analysis of historical documents that involve wildland firefighters, I developed four concepts of knowledge that are valued in the fire management community: local knowledge, language knowledge, perspective knowledge, and facility knowledge. The four concepts of knowledge are interrelated. To different extents, they change from place to place. At different paces, they change with time. They are greatly required to be and become a wildland firefighter. Expressing a willingness and capacity to learn the types of knowledge is highly valued. As are people who express human behaviors informed by the types of knowledge.

### *Local Knowledge*

Local knowledge refers to one's understanding of local conditions that relate to managing wildland fire in an identifiable area of land. Possessing a specific local and practical knowledge about a given area of land has likely always been a valued human quality associated with wildland firefighters. Ideas of strong relations with the 'wilderness', 'outdoors', 'forests', 'bush', and 'woods' have sometimes been involved in descriptions of local knowledge (see Jackson 1911; USDA 1955; Allen 1934; Caverhill 1926; Kelly 1956).

The great value that is given to local knowledge in the fire management community was alluded to in the preceding passage about the general qualifications and duties of potential Forest Rangers. According to Jackson (1911), local residents who applied for Forest Ranger positions in the early 1900s were given preference in examinations in the hiring process "to make sure that only men who [were] familiar with local conditions [were] employed" (p. 447). In the end, Jackson suggests, potential rangers who were examined were required to "know more about horses and the wilderness than about books" (p. 447).

In the following passage, Jones (1902) suggests why local knowledge about a given area of land is important for wildland firefighters.

A forest fire in the height of its power is one of the most unprincipled, ferocious and dangerous enemies to subdue, and it requires a good general, one thoroughly familiar with the topography of the mountains to avoid being flanked. This man should have thorough knowledge of the wind forces, the direction of their travels in different canyons, and the usual time of their visitation so he may be prepared for possibilities. Sometimes when the fire fighters think they have obviated all chance of the enemy's advance, the leaping flames give a victorious roar, and dart through some opening, a fierce, treacherous army, tossing broadcast luminous sparks, that dance for an instant like aerial demons, then flutter and fade and lose their identity in wreaths of smoke. (Jones 1902:444-445)

This passage is from a 1902 magazine article about the life, duties, and responsibilities of the United States Forest Ranger. The passage suggests that a good, knowledgeable leader is required to extinguish the most powerful forest fires safely, and that this person should know the concept of topography in great detail. It also suggests that in conjunction with knowledge of local topographic conditions, the leader should know local weather patterns that correspond to local topographic conditions in great detail. All of this knowledge can be used to anticipate and prepare for what might happen in a fire situation (see ‘fire behavior’ in glossary). Although local knowledge is generally valued among many wildland fire management community members, Kruger and Beilin (2014) suggest that there are sometimes situations in which wildland firefighters can take greater risks as influenced by their local knowledge.

In 1926, the Chief Forester of British Columbia published a very similar idea as Jones (1902) about local knowledge.

Fire suppression methods depend so much on local conditions that they may vary with every fire. It is the ability to determine these local conditions, foresee how the fire is going to act, and take the necessary action to counteract it, that marks the real strategy in fire suppression. Many men who are excellent foreman and know the woods, stand appalled before the forest fire. The man who can quickly size up the situation, attach or remove his forces to a point where definite work can be accomplished, is the real fire strategist; and when such a man develops, every effort should be made to make use of his services on the greatest possible number of serious fires. (Caverhill 1926:30)

This passage indicates the importance of local knowledge in wildland fire management, but also of a wildland firefighter who is able to acquire or use local knowledge to assess fire situations, plan how to deal with them, and implement plans that deal with them well to achieve fire management objectives. This involves the use of vocabularies.

### *Language Knowledge*

Language knowledge refers to one's understanding of wildland fire management vocabulary. Gordon (2014) contends that the "use of common terminology in wildfire response can help prevent misunderstanding during emergency situations. The use of common terminology can also help responders, the public and media to understand the local and national [(Canada)] fire situation" (p. 7). Similarly, Van Wagner (1965) contends that verbal description of forest fire "among experienced people working together...is useful and necessary" (p. 302).

Van Wagner (1965) suggests that there are limitations to verbal description of forest fire that can be reduced by the creation of "quantitative fire description" (p. 304). In discussing the terms 'rate of spread' and 'rate of energy output', or 'fire intensity' (see: 'rate of spread' and 'fire intensity' in glossary), as examples—the former was possibly first used in a research context in 1935 and the latter was published through research in 1959—Van Wagner alludes to some of their uses for wildland fighters: "The rate of spread alone tells the fire control officer a great deal about a fire, particularly where he must go to meet it and how he must deploy his forces" (p. 303). The rate of energy output is a term that most "clearly indicate[s] the nature of...fire and help[s] in judging how it may be fought" (p. 303). It seems that many wildland fire management community members value language knowledge because they consider that it greatly matters for wildland firefighters to manage wildland fire well and safely. Language knowledge relates to wildland firefighters communication abilities, and communicating well, is also valued (USDA 1905; NIFC 2015).

Many verbal expressions have been created to better manage and make sense of fire since the inception of wildland firefighting. On fire management vocabulary in the earlier years of wildland firefighting in the United States, Stuart suggests:

New ideas and new methods are being tested on the fire line and put forward in publication and conference. As is natural, this new and flourishing art tends to create new words and terms or to attach new meanings to old terms and words, in order to find a concise and easily understood medium by which to express its many complex elements.

This vocabulary, however, is often highly localized and as yet largely unfixed and uncrystalized, and perhaps it is premature to attempt to go too far in this direction. Nevertheless, past progress through publication and discussion has been hindered by the lack of a uniform terminology. Different men use the same term to express different ideas, or different terms to express the same idea, and usages have varied widely in different parts of the country. Moreover, fire control is so new that many of its distinctive elements either are not recognized or have not had words attached to them. Though it would be academic and futile to get far ahead of current thought and usage, new terms must be coined for readily defined elements of the control problem. (USDA 1930: II)

This passage is from the 1930 forward of “Glossary of Terms Used in Fire Control”. The glossary was made to help standardize a vocabulary for USFS wildland firefighters and to help convey new terms to USFS wildland firefighters. These are major concerns which continue to be mentioned in many fire management glossaries that are currently used in various continents and countries (see: NWCG 2015; CIFFC 2003; AFAC 2012; EUFOFINET 2012; GFMC 2014). For example, Gordon (2014) suggests there is a “lack of common terminology” among many fire management agencies globally, and that Canadian fire management agencies are using “varying definitions for common terms” as well as words and terms that are not in the most current glossary for the country (p. 8/6). Alexander and Thorburn (2014) suggest that Canadian fire management agencies are using words and terms intended to increase safety for wildland firefighters that are not in the most current glossary for the country.

The forwards, prefaces, definitions, and synonyms in fire management glossaries tend to suggest that sometimes wildland firefighters use common words and terms that have been identified and defined in glossaries; create and use words and terms that have not been identified and defined in glossaries; revise and dispute the meanings attributed to words and terms; and sometimes cease to use words and terms (see: USDA 1930; USDA 1956; NWCG 2015; NRCC 1987; CIFFC 2003; AFAC 2012; EUFOFINET 2012; GFMC 2014). They suggest language changes with time and from place to place. They generally show great approval for a uniform, standardized vocabulary for certain groups of people as well as for the idea that this will help group members better express ideas, which is often connected to notions of safety. They usually suggest that in wildland firefighter groups, firefighters can share vocabularies to some extent, but from various levels of organization. Many wildland firefighters, for instance, can partly express common local (USDA 1930), national (CIFFC 2003), and continental (EUFOFINET 2012) vocabularies.

The idea that wildland firefighters can share vocabularies from various levels of organization is substantiated by additional mediums. For example, on a national level for Canada, there are training courses that teach wildland firefighters about fire phenomena (Taylor and Alexander 2006; Thorburn, MacMillan, Alexander 2000; Thorburn et al. 2003; Alexander et al. 2002). In the courses, students are exposed to the same words for phenomena. They are sometimes given the most current fire management glossary for the country and are tested on words and terms from course materials. As another example, on a provincial and organizational level, Warburton's (1956) article on fighting forest fire in Saskatchewan suggests that there was once a shared vocabulary about 'zones', 'districts',

and ‘sub-districts’ which were associated with fire management objectives. This indicates that vocabularies are occasionally created and used that express fire management perspectives.

### *Perspective Knowledge*

Perspective knowledge refers to one’s understanding of commonly accepted ways of viewing wildland fire management in the fire management community. How wildland fire is managed has changed with time and from place to place. Scientists, politicians, and fire management agency leaders have significantly influenced which perspectives are implemented and generally accepted in the fire management community. Pyne (1996) suggests these ideas in an article that depicts war as a metaphor that has underpinned wildland firefighting in the United States. In providing a historical interpretation of fire management objectives in the country, Pyne suggests:

Our relationship to fire is profoundly symbiotic. We are the one species that can start and, within limits, stop fires. Historically the first ability has enabled the second; the best way to control fire is with controlled fire; humans prevented wildfires by igniting their own. Not until the industrial revolution put fire into machines and reordered our relationship to the natural world did people assume that free-burning fire could be suppressed and, if necessary, eradicated.

Not surprisingly, it was the millennial 1910 fires that prompted a national debate on fire policy. Aggressive fire suppression had the sanction of European forestry; controlled ‘light’ burning was, as poet Joaquin Miller ingeniously put it, ‘the Indian way.’ Folk philosophers could not face down academic science, and as the body count mounted and federal troops poured into the Northern Rockies to restore order, the suggestion that hostile fire was somehow friendly fire, that the philosophy of firefighting was wrong, seemed not only ignorant but traitorous. Fatalities hardened ideology; to question public policy was to question the private sacrifices of the dead. The problem was fire, and the solution was less of it, not more. (P. 9-10)

Pyne suggests that for more than a century after 1910, aggressive firefighting persisted as an accepted method of fire management in the country.

Even as the fire community recognized that fire control alone was inadequate, even as the federal agencies in the 1970s reformed their policies to accommodate controlled burning, even as ecological analysis has demonstrated that the plunging curve of burned area traced equally the curve of an environmental deficit, a fire famine, state and federal agencies have continued to dispatch crews to the front lines. (P. 10)

Aggressive wildland fire management, according to Pyne, has led to more vegetation on landscapes, which has resulted in more intense fires. To deal with the current fire situation, Pyne recommends much more controlled burning of vegetative landscapes for its ecological benefits (p. 10). This attitude conflicts with the attitudes of many people.

Pressures on the public lands have intensified. The vanishing rural landscape has removed a once-useful buffer and stuffed it with houses—still more fuel and more critics of any policy other than all-out firefighting. Legal liabilities for escaped fires, air quality standards, endangered species considerations, and impassioned interest groups have extended the national gridlock to such backcountry locales as the Three Sisters, Little Tujunga Canyon, and the Mogollon Rim. The agencies that oversaw the debacle implausibly ask a skeptical public for money and trust to set things right. Wildfires will continue as long as there are wildlands; the issue is not whether fires burn but how. In the past few years fire officers have struggled to kindle a thousand points of light with fusees and helitorches, but the amount of controlled burning is miniscule; the ecological darkness grows. That leaves the burden on firefighting, now more than ever more essential, isolated, and desperate. But by itself it can only temporize. It cannot eradicate the volatile legacy of the past or dissolve the clotted confusion of the present. (P. 10)

These passages indicate that fire management objectives have changed with time in the United States, and that currently, there is much resistance to the generally accepted perspective of managing fire that fire management agencies are implementing. They suggest that many entities are involved in conversations about how wildland fire should be managed, including: state and federal fire management agencies, judicial agencies, foresters, scientists, politicians, and interest groups. Wildland firefighters are implicated in these conversations by fire management agency objectives.

The history that Pyne (1996) presents of fire management in the United States is similar to the histories that Van Wagner (1990) and Taylor and Alexander (2006) present of the activity in Canada (also see CCFM 2005). According to Van Wagner (1990):

There is no mystery about the bad reputation forest fires acquired in Canada's past: early logging, settlement, and fire went hand-in-hand, culminating in some awful holocausts that incinerated whole towns and hundreds of people. Even by the 1880's lumber interests were deploring the uncontrolled fire losses in the valuable pine timber of the Ottawa River and Lake Ontario watersheds. The traditional European attitude that forest fire is merely destructive also played its part. So, for many decades after organized fire control began in Canada, fire was viewed essentially as a negative phenomenon, to be eliminated if possible or otherwise to be kept to a minimum. If a more objective attitude to fire has been developing during the past decade or two, it is surely because the pressure of certain realities of ecology and economics has become inexorable. It may now be said openly that the effects of forest fires are not all negative, and that there are limits to the expense that can be justified to control them. Forest fire policy then becomes a problem of distinguishing correctly the negative effects from the positive, and in applying available funds where they will yield the best return. (Van Wagner 1990:133)

In this passage, Van Wagner alludes to a major shift in the general narrative of managing wildland fire in Canada. Van Wagner suggests that money and notions of fire ecology are factors that determine current fire management objectives. The major narrative shift that Van Wagner alludes to is identifiable in Taylor and Alexander's (2006) discussion of developmental stages in Canadian fire management programs.

Fire management objectives change over time and space; we can distinguish at least four developmental stages in fire management programs in Canada:

1. Unregulated use of wildland fire by rural and aboriginal peoples as a part of traditional land management practices;
2. Government agencies begin to control fires to prevent unwanted damage to timber or other state and private resources as development and competition for resources increases, and to reduce people-caused fires by instituting fire laws, education programs, and suppressing traditional practices;
3. Government agencies and private concerns attempt to control all wildfires and restrict the use of prescribed fire to fire managers; wildland fire is institutionalized;

4. Realization that it is not possible or ecologically desirable to control all fires. Wildfires may be allowed to burn in some areas where they play a natural role, and prescribed fire may be used to manage fuels and maintain ecological integrity. (P. 123)

Pyne (1996), Van Wagner (1990), and Taylor and Alexander (2006) show that at different times and in different places there are often general accepted ways that people of the fire management community view fire management. Fire management agencies and fire researchers significantly participate in endorsing these views (see: CCFM 2005; USDA 2014; DELWP 2015; Goldammer 2004). It seems that many fire management leaders, fire researchers, and politicians generally support the most current and commonly accepted perspectives of managing wildland fire in the fire management community. Nowadays, in most places, the perspectives include ideas about fuel management, prescribed fire, climate change, fire ecology, protection of values-at-risk, fire exclusion effects, the wildland-urban interface, and suppression effectiveness (CCFM 2005; USDA 2014; DELWP 2015).

As suggested, wildland firefighters are exposed to fire management perspectives by their employers and work environments. To some extent, they implement perspectives in managing wildland fire. Their direct coworkers and organizational leaders can value their knowledge, acceptance, and implementation of certain perspectives (USDA 1954). This is suggested in a 1954 quiz about a USFS promotional video on Forest Rangers. In the quiz, the question is asked: “What qualities make a good Ranger?” The answer that is provided: “Willingness to work hard; ability to handle tough situations and to withstand criticism; a genuine belief in *conservation* and the importance of public service” (USDA 1954 emphasis added). Despite why wildland fire is managed, it has always involved the use of resources to meet objectives.

### *Facility Knowledge*

Facility knowledge refers to one's understanding of wildland fire management methods and equipment. Both change with time and from place to place. In the last century in Canada, power pumps (TFC 1926; Townsend 1977); aircraft (MacDonald 1935; Mackey 1954; Chester 1966), fire behavior prediction systems (Van Wagner 1987), radios (McEwen 1940; Roberts 1936), chemical fire retardants (Wright 1937), heavy equipment (Shortinghuis 1945), infra-red fire detectors (Chester 1966), computer systems (Goldrup and Jordan 1974), as well as many other resources were introduced to wildland fire management. Consequently this changed the contexts in which human qualities were placed, and seemingly, the degree to which some human qualities to manage wildland fire were needed. Chester (1966) suggests this in discussing "a period of revolutionary change" in fire management, some 40 years until early 1966 (p. 59).

New equipment, technology and concepts are being developed or adapted by fire personnel to meet the demands imposed by the desire and need to do the job better, faster, and cheaper...Basic to this development is the partial replacement of manpower by mechanical means such as the helicopter or other aircraft, swamp buggies, 4-wheel-drive cars, and trail scooters. Trails, long portages and the backbreaking, laborious and hectic construction of fireguard with hand tools are being replaced by modern means of transportation, pumps and hose lays, power saws, bulldozers and the mechanical line constructor...The strongback type is being replaced by the skilled individual who knows how to correctly use and control the tools at his command and who knows how to quickly and economically accomplish the job at hand. (P. 59-60)

This passage suggests that changes to equipment, technology, and fire management concepts can change the context of what is required to be and become a wildland firefighter. Chester again indicates this in discussing the introduction of helicopters to fire management in Canada.

The helicopter proved indispensable in moving men and equipment quickly to and around a fire. It also proved invaluable as a 'flying carpet' allowing the fire boss,

in a way hitherto impossible, to look at his fire, to assess its behaviour, and to plan accordingly. (P. 59)

This passage indicates that the addition of helicopters to wildland fire management changed the context of the human quality about being able to assess situations, plan how to deal with them, and successfully implement plans that deal with them. It also indicates that sometimes wildland firefighters must create knowledge about newer equipment that is introduced in their work.

Gisborne (1948) contends that knowing how to use wildland fire management methods and equipment to achieve the objectives of fire management perspectives is valued.

Even though there are some holes in our information, we have much more than our predecessors. Those men had to think of EVERYTHING. They even had to go to town to buy their axes and shovels and grub. Then they had to remember out of their own personal experiences what the topography and timber and brush types were like, up there at the fire. [They] could only feel the wind and kick the duff to see how dry the fuels were, right where they stood. Finally they could look at the sky and guess at what the weather might be tomorrow. Maybe some of them prayed.

But times have changed. Where those old timers had to guess at most everything, today, we have measurements and maps and many other facilities. While we might like to have more, I doubt that anyone ever will be able to sit down to a machine, punch a key for every factor of the situation, and have the machine tell him what to do. Fire control still requires headwork based on knowledge. If we will make a purposeful attempt to use all of the knowledge and all of the facilities that are available to us today we can do one thing the old timers could not do: We can come mighty close to getting adequate fire control, and at an operating cost far below what it used to be. (P. 24)

Although Gisborne (1948) seems to praise the use of all fire management equipment and methods to achieve fire management objectives, Wilcox cautions that reliance on some equipment, such as newer technologies, can hinder fire management efforts by distracting wildland firefighters from immediate fire situations (NIFC 2014b). Nonetheless, the fire

management community often values facility knowledge because people consider that it helps wildland firefighters achieve fire management objectives. Isenor (1960) suggests this in discussing the selection of wildland firefighters for fireline positions: “When you are choosing your men for the various positions, you will of course place them where their knowledge is of most benefit. You will for instance employ a man who has worked with tractors and knows their requirements as Machine Boss” (p. 119).

The literature I reviewed in this chapter indicates that local knowledge, language knowledge, perspective knowledge, and facility knowledge are valued in the fire management community. The types of knowledge are interrelated and change with time and from place to place. They can help wildland firefighters do their job. When wildland firefighters are perceived to possess much of the knowledge, they may be considered knowledgeable. Although wildland firefighters can lose or construe the knowledge with time, they can also acquire it.

## TRAINING

Most people of the fire management community think that wildland firefighters can acquire knowledge through training. It appears two types of training are distinguished (Spaulding 1956; Warburton 1956; Osborne 1934). I identify them as ‘informal training’ and ‘formal training’. Informal training is not typically accredited and involves learning on-the-job, which can include learning by scenarios, reading articles and policies, and mentorship in fire management. Formal training is typically accredited and involves learning by scenarios and courses. Although fire management agencies may provide training to wildland firefighters to comply with legislative and legal requirements, this is not why most people of the fire management community value the activity and wildland

firefighters that are trained. Pond (1949) suggests that formal training develops wildland firefighters faster to manage fires more efficiently than direct experience managing fires alone, and at a lower cost than the monetary value of lost timber to those who lack training. The latter ideas hint at perspective knowledge. Chester (1966) suggests that trained wildland firefighting crews are “so much more effective than untrained crews” (p. 61). Kelly (1956) contends that training wildland firefighters can permit them to develop specific techniques of wildland firefighting. Thorburn, MacMillan, and Alexander (2000) contend that training can teach wildland firefighters how to work safely and productively. It seems many people of the fire management community value training because they consider it provides wildland firefighters with knowledge to better manage wildland fire ‘safely,’ ‘properly,’ and ‘efficiently.’

However, a consequence of training is that it can create an environment in which some people blatantly admonish certain behaviors that are not perceived as constructive to meeting fire management objectives. This has appeared in training materials such as Osborne’s (1934) list of common errors in firefighting.

Evidence in the field shows that the following gross errors are still of frequent occurrence:

1. **Failure to start for a fire immediately.** Man thinks more of comfort than his job—let him choose.
2. **Failure to attack at 4 o’clock A.M.** Violates first law of fire fighting. He would drop a match in a slashing and go in to dinner before he tried to put it out.
3. **Failure to have suitable equipment or foreman.** He wasn’t prepared.
4. **Failure to keep posted in regard to all sides of a fire.** Backwork instead of headwork.
5. **Construction of a trail in front of a fire without burning clean from extreme edge of trail.** Pins faith to a foot of dirt where experienced men would not trust to a county road.
6. **Construction of a fire line in advance of a fire with no attempt to backfire.** A costly monument to misjudgment or inefficiency.

7. **Escape of fire after patrol is abandoned.** Classed with those “who didn’t know it was loaded.”
8. **Failure to throw dangerous snags.** He’d built a 3-foot fence to keep birds out of his garden.
9. **In moss laden timber the construction of line in advance of fire without burning out moss before heat of day.** It would be cheaper and just as effective to blaze a line of trees and cross his fingers.
10. **Failure to hold water to extreme edge of fire.** He’d kill woodpeckers to save the trees. (P. 111)

Lists of common errors in firefighting suggest there are acceptable and unacceptable fire management behaviors among wildland firefighters in given locations at given times (see Osborne 1934; Holmes 1948). Wildland firefighters who are thought to generally express proper behaviors are typically respected. Those who are thought to generally express improper behaviors are typically not respected. Mackey (1954) suggests this in discussing inexperienced and untrained fire crews: “Anyone who has ever witnessed the pathetic sight of an inexperienced and untrained fire crew will agree with the importance of some form of instruction previous to when fires occur” (p. 38).

Most fire management community members think that wildland firefighters can acquire knowledge through experience. Experience is sometimes considered a type of informal training. Although the word experience possesses different meanings in the fire management community, people often consider that experience is practical knowledge learned from situations that are lived through. Osborne (1934) suggests that experience can increase with time; wildland firefighters possess experience in different amounts; and awareness of experience levels and the complexity of a fire situation are important when people are selected for fireline positions (p. 38-39). Namely, the most qualified wildland firefighters for certain positions should be placed in the positions they will be most

effective. Isenor (1960) suggests wildland firefighters can possess experience about different aspects of fire management.

Much literature involving wildland firefighters suggests that fireline experience is greatly valued in the fire management community. Osborne (1934) suggests that fireline experience is partly valued because it indicates that people have used human capacities, such as the capacity of observation, to manage fire (p. 32). Many people value fireline experience because they consider that wildland firefighters can use it to deal with fire situations well (Osborne 1934; Beall 1946; Holmes 1948).

In the following passage, Allen (1934) suggests that fireline experience is fundamental to how people create and implement decisions in immediate fire situations: “Finally there is the actual fighting of fire, never the same, defying all rules, profiting by all previous experience but calling always for new and decisive reasoning” (p. 3).

Gisborne (1948) also suggests there is a connection between experience and decision-making. The following passage is from an article in which Gisborne discusses principles of fire behavior.

[I]n fire control there are still a lot of basic factors not yet understood or not yet measured. And even when they are measured the basic facts must still be put together, weighed one against another, and a balanced decision then reached. Worse yet, sometimes that decision must then be modified or even seriously compromised on the basis of what you *can* do about it.

Experienced judgment is therefore the final determinant of what you actually do, both in planning to control a fire and out on the fire line where you try to put your plan into effect. But if you will stop to examine just what is meant by experienced judgment you will come back to items I have listed above. For what is experienced judgment except opinion based on knowledge acquired by experience? If you have fought fires in every different fuel type, under all possible different kinds of weather, and if you have remembered exactly what happened in each of these combinations of conditions, your experienced judgment is probably very good. But if you have *not* fought all sizes of fires in all kinds of fuel types

under all kinds of weather then your experience does not include knowledge of all the conditions. (P. 23)

Gisborne associates one's ability to assess a fire situation, plan how to deal with it, and implement plans that deals with it, with one's experience and judgment. Some people contend that wildland firefighters can exhibit "good judgment" (Taylor and Alexander 2006:131; USDA 1905:68). Others contend that wildland firefighters can exhibit "poor judgment" (Osborne 1934:38).

Consequences can result when wildland firefighters greatly value experience.

Osborne (1934) hints at some consequences in the preface of a training manual chapter on firefighting in Northwestern United States.

To prepare a manual applicable to the widely varying types of forests encountered throughout the Northwest is a hard task. To make it suitable for the new man who is just starting on the game, without making the "old timer" feel that we are insulting his intellect by telling him a lot of stuff that he knew twenty years ago, is a harder task. Experience is the best teacher beyond question, but in the case of forest fires she is a mighty expensive tutor if all the new men must make the same mistakes as the old ones made before they learned better. No one knows all the tricks. If he did, he could not squeeze them into ten volumes; and if he should, no one would read them through. (P. 4)

This passage suggests that some wildland firefighters may value their own perceptions of their personal experience so much that it makes them consider training, about information they know, insulting. It suggests that wildland firefighters and fire trainers distinguish divisions between people based on the experience the people are perceived to possess. Moreover, it indicates that Osborne may consider that there is something in experiencing forest fire that formal training cannot provide. Kelly (1956) seemingly alludes to this as well in discussing the start of Saskatchewan's (now defunct) smokejumper program: "In training, these men acquitted themselves very well but, as an equipment hangar was

demolished by fire that summer, they were unable to prove themselves in the actual field. Such were the discouraging beginnings of this world-renowned service” (p. 230).

The content in this section of the chapter hints at the ideas of theoretical and tacit knowledge. What some authors seem to be trying to describe in discussing training and experience is the theoretical and tacit knowledge that informs the actions and perceptions of wildland firefighters. I suggest that what they value in the ‘trained’ and ‘experienced’ wildland firefighter are the forms of theoretical and tacit knowledge: local knowledge, language knowledge, perspective knowledge, and facility knowledge.

#### A SHORT DISCUSSION

I detailed four, interrelated concepts of knowledge in this chapter that have been and continue to be valued among many wildland fire management community members. I showed how the concepts of knowledge were subject to change with time and place. I suggested that the concepts of knowledge were forms of theoretical and tacit knowledge, which underpinned human qualities that many wildland fire management community members valued and often identified by brief words and phrases such as ‘trained’ and ‘experienced’.

The concepts of knowledge can assist in interpreting how wildland firefighters construct a sense of self in relation to risk. As suggested, wildland firefighters create knowledge of the concepts in given places at given times. I later show interview data about wildland firefighters transferring and creating the knowledge. I consider that knowledge is part of the self and I suggest how the knowledge wildland firefighters create relates to the concepts of trust I started developing in Chapter 2 and how wildland firefighters can experience risk.

By reviewing and analyzing historical documents about wildland firefighters and wildland fire management, it is evident that the wildland firefighting literature inadequately details trust in its descriptions of self-construction processes. I make theoretical contributions to this literature by providing an early-stage extended theory of risk taking, which includes concepts of trust and knowledge, accounting for the significance of trust in self-construction processes. Such concepts of trust and knowledge contribute to the risk taking literature as well in that they could be adapted to comply with the contexts of different risk taking activities.

Thus far I have presented literature about wildland firefighters, managing wildland fire, and social theory of risk taking. The authors of the wildland firefighting literatures, however, did not explicitly adopt social science and humanities research perspectives in their writings. In the next chapter, I show current studies about wildland firefighters by authors who adopt social science and humanities research perspectives in their writings. I provide exegeses of studies that are centered on how gender, sex, and sexuality are involved in being and becoming wildland firefighters.









## **Chapter 4: Perspectives on the Development of Wildland Firefighters**

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Ideas about gender, sex, and sexuality are central to many current studies of wildland firefighters that explicitly adopt social science and humanities research perspectives. In this chapter, I provide detailed exegeses of four such studies. They suggest that ideas about gender, sex, and sexuality are significantly involved in each wildland firefighter's sense of self, self-construction process, and identity-construction process. To different extents, they connect ideas about gender, sex, and sexuality to concepts of trust and risk. I show that the studies, however, lack detailed analyses of trust in relation to being and becoming wildland firefighters and experiencing risk.

The first research I detail is Desmond's (2007) study of wildland firefighters in the United States. Based on a representation of USFS culture, Desmond provides a historically situated interpretation of being and becoming a USFS wildland firefighter. Presumably, the interpretation expresses the general self-construction trajectory of a typical person who undertakes wildland firefighting and becomes a wildland firefighter for the USFS. I suggest that Desmond's interpretation is greatly centered on a general and longitudinal trajectory of being and becoming a wildland firefighter. I suggest that while Desmond's interpretation accounts for one possible combination of the main argument about risk and trust that I propose in this thesis, so much about risk and trust that is integral to being and becoming a wildland firefighter is not included in Desmond's interpretation. I suggest that Desmond focuses little attention on specific risk taking situations and may have therefore inadequately represented wildland firefighter trust and how wildland firefighters can experience risk.

The second research I detail is Pacholok's (2009) study of wildland firefighters in Canada. Pacholok provides an interpretation of being and becoming a wildland firefighter in British Columbia. The interpretation was produced from a specific situation that involved groups of firefighters who managed a wildland fire in Kelowna, British Columbia in 2003. I suggest that Pacholok's interpretation provides some useful ideas for this thesis about ideal human qualities that are fundamental to trust among wildland firefighters. I show, however, that Pacholok focuses little attention on how trust can change wildland firefighters' experiences of risk.

The third research I detail is Eriksen and Waitt's (2016) and Eriksen, Waitt, and Wilkinson's (2016) study of wildland firefighters in Australia. The study provides an interpretation of being and becoming a New South Wales National Park and Wildlife Service (NSWNPWS) wildland firefighter. I suggest that the interpretation provides some useful ideas for this thesis about ideal human qualities that are fundamental to trust among wildland firefighters, as well as possible differences in being and becoming wildland firefighters as influenced by organizationally privileged discourses and norms about gender, sex, and sexuality. Similar to Pacholok (2009), I suggest that Eriksen and Waitt (2016) and Eriksen et al. (2016) focus little attention on how trust can change wildland firefighters' experiences of risk.

The fourth research I detail is Ross' (2006) study of wildland firefighters in Canada. Ross provides an interpretation of being and becoming a Ministry of Natural Resources (MNR) wildland firefighter in Ontario. Similar to Eriksen and Waitt (2016) and Eriksen et al. (2016), I suggest that Ross' (2006) interpretation provides some useful ideas for this thesis about ideal human qualities that are fundamental to trust among

wildland firefighters, as well as possible differences in being and becoming wildland firefighters as influenced by wildland firefighter ideas about gender, sex, and sexuality. I show that Ross focuses little attention on how trust can change wildland firefighters' experiences of risk.

After I detail the four studies, I discuss their ideas about gender, sex, and sexuality. I suggest that the studies provide many useful ideas for this thesis about gender, sex, and sexuality that compliment my interpretation of wildland firefighters. I suggest that the authors may have, however, unreasonably interpreted parts of their data and unintentionally created division and differentiation among people in their research by relying on structural tenets and stereotypes of particular theories. I offer my perspective of the studies within these terms, and I explain my perspective about dealing with gender, sex, and sexuality in this thesis.

To conclude the chapter, I suggest that studies on wildland firefighters that are framed with social science and humanities research perspectives, in their descriptions of self-construction processes, inadequately detail how wildland firefighter trust can change wildland firefighters' experiences of risk. By the end of the thesis, I offer an interpretation of being and becoming a wildland firefighter that supplements these deficiencies in the wildland firefighting and risk taking literatures. I use some ideas from the four studies in this chapter to discuss how wildland firefighters judge and repute one another, practices I connect to trust and experiencing risk.

MATTHEW DESMOND

In *On The Fireline*, Desmond offers an interpretation of risk taking among 14 wildland firefighters who managed fire in Arizona for the USFS. Desmond was a

wildland firefighter from 1999 to 2003. Most of the primary data in the book was produced in 2003 when Desmond worked alongside the wildland firefighters.

Desmond classifies wildland firefighters as “professional risk takers” who work in a socially accepted and organized risky job (p. 9/315). They are mostly “working-class men” from which “the educated and the rich are strikingly absent” (p. 9). Desmond suggests this is the case because power and inequality differences among people in the United States influence certain groups of people to undertake wildland firefighting. The 14 wildland firefighters, as well as Desmond (henceforth ‘crewmembers’ unless noted ‘Desmond’s crewmembers’ which denotes the 14 wildland firefighters), are classified as fitting this demographic. They grew up “in small towns with populations under 10,000”, and most of them knew “each other since kindergarten” (p. 25). They all shared a rural upbringing (p. 25), which was a shared feature among every firefighter Desmond met.

Using concepts from Bourdieu and Weber, Desmond proposes that crewmembers possessed a “country-masculine habitus” passed from one family generation to the next (p. 12/30/317). This meant that crewmembers shared similar embodied dispositions informed by their childhood and adolescent experiences with a social class of people who lived similar “styles of life” (p. 268/317). Crewmembers shared a rural country-masculine upbringing, and most shared “fathers who were actively invested in cultivating within them ‘country competence’” (p. 318). Most crewmembers also shared interpersonal connections to the USFS, and “an infatuation with fire” developed early in life (p. 318).

Because crewmembers shared similar childhood and adolescent experiences, they also shared an attitude about country people and city people (p. 319). Desmond suggests:

[a]s self-described ‘outdoors people,’ my crewmembers fervently reject[ed] any type of indoor work...The desk represent[ed] the world of paperwork, sycophants,

and middle-class managerial masculinity. The forest represent[ed] freedom, wilderness, and working-class masculinity.

The rejection of indoor work, the denial of the desk, reinforce[d] a major distinction in the minds of the men [at the firebase]. This distinction between ‘outdoor’ and ‘indoor’ people, between ‘the country’ and ‘the city,’ function[ed] as their primary symbolic binary...To paraphrase Bourdieu, the *social structures* of regional divisions (between city and country) [were] transferred into *mental structures* of symbolic divisions giving meaning and identity to the firefighters at [the firebase]. (P. 29 emphasis original)

Crewmembers considered themselves rural, masculine, working class boys rather than city boys. To them, the ideal-typical city boy was a “fickle, materialistic, hip, stuck-up, manicured and waxed, overeducated, rich, sweater-wearing, vain, urban-dwelling ‘metrosexual’ weak-willed sissy who [didn’t] know the first thing about the outdoors” (p.36-37).<sup>10</sup> Associated with this attitude, crewmembers thought they possessed a “specific body of knowledge—a country competence, a woodsy *techne*—that [made] them country boys and the lack of which [made] other men city boys” (p. 43). Desmond suggests that people who could “gut an elk, string a catfish line, reload .45 bullets, fell a juniper with a twelve pound chainsaw, or throw a rig into four-low and climb a rocky hill” exhibited country competence (p. 46). This specific and practical knowledge of the country, which was accompanied with an attitude about knowing the land, was shared among crewmembers and helped them to adapt to the practical demands of wildland firefighting (p. 46). Crewmembers acquired country competence in different amounts as they grew up.

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<sup>10</sup> An ‘ideal type’ or ‘pure type’ is an analytic device for structuring arguments. It often involves interpreting and outlining an identified pattern within empirically observed social behavior, a pattern that no person can comply with fully, and using the interpretation and outline to demonstrate how people comply with it to different degrees.

Desmond suggests that country masculinity was practiced and expressed mostly by country competence (p. 43). Other masculine qualities that generally characterized crewmembers, such as “styles of communication and joking” with men, were learned from experiences in “homosocial male environments”, such as sporting environments (p. 43/47). Rarely, some people could grow up in the country and undertake wildland firefighting with little experience of the mentioned qualities. In such cases, Desmond suggests it was more difficult for them to uphold and adapt to the homosocial and practical demands of the job and the USFS (p. 47-52).

The crewmembers’ attitude about country boys and city boys was associated with ideas about residential areas. Crewmembers considered the suburbs “weak, wealthy, and vain”, a place where the ideal-typical city boy lived (p. 37). They considered the inner city “dirty, dangerous, and poor”, a place where the “hard and violent inner-city dweller” lived (p. 37).

Thus the symbolic construction of the country gravitate[d] between two equally rejected conceptions of the city. The inner city [was] associated with crime, danger, and vice, the suburbs with money, fashion, and manners. The inner city [was] too dangerous, the suburbs, too safe. The country resemble[d] the inner city in that it [was] gritty and the weak-willed cannot survive, but unlike the inner city it [was] a place of security and wholesomeness. In its security it resemble[d] the suburbs, but unlike the suburbs the country [was] rough. (P. 38)

Desmond suggests crewmembers valued their ““human capital””, their country competence, more than economic capital and city competence (p. 46). They associated economic capital with the “wimpy” city boy suburbanite and city competence with the hard inner-city dweller.

Crewmembers undertook wildland firefighting for money and adventure, but most importantly, for the “esprit de corps” that came with the collective lifestyle (p. 37). They

gravitate[d] ‘naturally’ to the ranks of firefighting...because the country-masculine habitus [sought] out a universe in which it [could] recognize itself, an environment in which it [could] thrive. Wildland firefighting offer[ed] a specific and salient outlet for the reproduction, reaffirmation, and reconstitution of the country-masculine habitus; it offer[ed] a space and culture that correspond[ed] to, confirm[ed], and amplifie[d] crewmembers’ skills and dispositions. (P. 266)

The country-masculine habitus also influenced crewmembers to return to the job seasonally. However, while “economic incentives, status, the lure of fire, or the stimulation of action” motivated crewmembers to return to the job, Desmond contends the principal motive was their home firebase because it provided them with a sense of belonging and freedom informed by its country-masculine atmosphere that they helped produce (p. 86). The firebase was a “country-masculine sanctuary” congruent with crewmember’s upbringings (p. 85). It was a place where crewmembers’ attitude about country people and city people was “reproduced” and “reinforced” and where the country-masculine habitus could thrive (p. 88/30). At the firebase, crewmembers could dress sloppily, swear, drink beer under age, grow facial hair, talk loudly, flatulate, burp, keep their dormitory messy, light fireworks and campfires despite fire bans, and wrestle and compete with one another (p. 68-88). For crewmembers, the firebase was “their cleft in the rock, their refuge—from supervision and laws, and from women and city boys and their suffocating civilization” (p. 69). According to Desmond, the firebase:

welcome[d] the cut-loose flow of vulgarity, whereas the ‘city’ [(here meaning anything from a little town to a metropolis away from the firebase)]...require[d] bounded, carefully executed, courteous language...At [the firebase], crewmembers reject[ed] the constraining and cleanly requirements of the city through their ‘alternative language’ as well as through their bodies. Whereas the city boy conform[ed] to the etiquette of civilization—delicate, soft, mannered, clean, educated; in a word, feminine civilization—the firefighters at [the firebase] actively resist[ed] it. (P. 75)

Although crewmembers sensed freedom from perceived rulelessness at the firebase, it was “highly structured by the codes of country masculinity” (p. 88).

Crewmembers also undertook the job and returned seasonally because “social, cultural, political, and economic contexts” influenced their decisions (p. 87). Desmond contends that the “economic bleakness of American Indian reservations, the inability of small-town communities to carry out economic development strategies in the face of global demands, and the rising costs of higher education” influenced crewmembers to fight fire (p. 87). These factors were related to power and inequality in the United States.

When crewmembers first started wildland firefighting, they were introduced to the organizational common sense of the USFS through informal processes of socialization (p. 145). Desmond suggests that the organizational common sense “connote[d] the presence of a paradigm...so widely accepted by [the] organizational community that it remain[ed] unspoken, allowing the organization to function smoothly” (p. 329). The paradigm involved conceptions of risk, safety, and death that were centered on “personal accountability” and “individual responsibility” (p. 177).

One informal process of socialization that introduced crewmembers to the organizational common sense was joking rituals, an at-work and after-work activity through which crewmembers derided one another on the bases of misogyny, notions of manhood, and incompetence (p. 91-112). Crewmembers called the activity shit talk (p. 94).

Misogyny often serve[d] as the discursive scaffolding for shit talk. Crewmembers attack[ed] one another’s masculinity by invoking feminizing epithets such as *bitch*, *sissy*, *fag*, *pussy*, *pansy*, and *girl*, or they threaten[ed] the ‘purity’ of one another’s wives, girlfriends, or sisters, usually by confessing fantasy sexual encounters. (P. 96 emphasis original)

Another joking ritual involved crewmembers' attitude that "one's work ethic was deeply connected to one's pride and sense of manhood. To work and to work hard—not to risk—was to be a man" (p. 109). Because of the attitude, when crewmembers "missed fires or took too much time off work", their counterparts usually derided them (p. 108-9). The "most frequent and most potent catalyst for verbal abuse" from supervisors and crewmembers, however, resulted from crewmembers asking "silly" questions, or mismanaging fire equipment (p. 109). These behaviors expressed incompetence (p. 109). To avoid ridicule from expressing incompetence, crewmembers "usually performed each task to the best of their ability", expressing "firefighting competence" (p. 109).

Desmond maintains that crewmembers responded to joking ritual derision in one of three ways (p. 96). They either engaged with offenders by trying to outwit them, escalated situations by threatening or physically harming offenders, or remained inactive by being quiet until offenders stopped (p.96-97). Although crewmembers thought that joking rituals ensured "fraternal closeness", Desmond suggests the activity served at least three interrelated functions at the firebase:

it secure[d] solidarity and friendship by letting crewmembers communicate a shared disrespect; it divide[d] crewmembers hierarchically and allow[ed] some to assert their dominance; and it discipline[d] crewmembers into being competent firefighters who must always perform at their best. (P. 99/111)

Another process of informal socialization that introduced crewmembers to the organizational common sense was learning and accepting USFS symbolic struggles; learning and accepting the USFS's "enemies and its problems as their problems" (p. 118/140/145). Through such processes crewmembers started to direct their "critical energies and doubts not at their host organization but at outside organizations and

individuals” (p. 140). They came to “identify with”, “trust”, and have “confidence” in the USFS (p. 140/118).

One symbolic struggle that crewmembers learned and accepted was the conflict between “environmentalists” and the USFS wildland firefighting section (p. 330-331/118-128). Environmentalists were people who participated in environmental advocacy groups and people who worked in different sections of the USFS. Crewmembers and environmentalists disagreed on how to best do forestry (p. 130). Crewmembers thought the best way to do forestry involved letting fires burn where possible and completing forest thinning and prescribed burning close to communities. They thought the denial of such practices would produce bigger and more dangerous fires for themselves, others, and communities (p. 123). Desmond suggests that crewmembers thought they knew how to best do forestry because their childhood and adolescent experiences easily connected and transformed to the USFS wildland firefighting sections’ “categories and classifications” (p. 140). Their attitude about knowing the land easily took on the additional meaning of knowing how to manage the land. Environmentalists, however, thought the USFS wildland firefighting sections’ actions in practice would harm endangered animals and the environment. Desmond indicates that while some crewmembers may have agreed with environmentalists about endangered animals, they usually defended the USFS’s wildland firefighting section “against the legal and symbolic attacks of ‘environmentalists,’ attacks they classif[ied] as tomfoolery” (p. 128/118).

A second symbolic struggle that crewmembers learned and accepted was the conflict between structural firefighters and wildland firefighters. The conflict was based

on ideas of “cultural prestige” attributed to structural firefighters and retaliatory claims to “authenticity” from wildland firefighters (p. 130). Despite that both firefighter types respected the practical demands of one another’s work, to wildland firefighters, structural firefighting was “less authentic and more sissified” (p. 130). Crewmembers considered wildland firefighting “more manly” (p. 131). For this reason, Desmond’s crewmembers felt “cheated out of the two prizes structural firefighters supposedly enjoy[ed]: the symbolic goods of heroism and the fleshy goods of infatuated women” (p. 131).

A third symbolic struggle crewmembers learned and accepted was the conflict among USFS wildland firefighter types. Desmond suggests this was a “competition over the most authentic type of wildland firefighter” (p. 139). There was a hierarchy among the types, and brand new firefighters quickly learned their spot on the hierarchy, as well as who to “revere” and who to “disrespect” (p. 141). Hotshots were most revered, then Smokejumpers, then Helitak Crews, and then Engine Crews (p. 140). Crewmembers were on an Engine Crew.

According to Desmond, the symbolic struggle among USFS wildland firefighter types was “more or less” among country boys, and the city-country binary structured joking rituals. The city-country binary also structured the symbolic struggles between environmentalists and members of the USFS wildland firefighting section, and structural firefighters and members of the USFS wildland firefighting section (p. 133/119/141).

Members of the USFS wildland firefighting section represented the country.

Environmentalists and structural firefighters represented the city. For this reason,

Desmond proposes:

though they [were] not aware of it, most crewmembers [had] been preparing to trust and to accept the common sense of the U.S. Forest Service since childhood.

They began developing a disposition that [fit] within [the] organization long before they even knew of its existence. (P. 141)

In addition to informal processes of socialization to the organizational common sense, wildland firefighters were also subject to formal processes of socialization through education, training, and discipline (p. 145). Regarding formal processes of socialization, Desmond mostly focuses on The Ten Standard Fire Orders and the Eighteen Situations That Shout ‘Watch Out!’ (Appendix D), henceforth the Ten and Eighteen, and presents them as “the fundamental rules of wildland firefighting” (p. 145). Desmond suggests that the rules were the “sacred commandments of firefighters; they [were] the unquestioned, fundamental doctrines of the Forest Service, which promised to keep firefighters safe” (p. 145). The rules were greatly centered on “personal responsibility and individual competence” and they conveyed “little about actions involving trust, teamwork, or solidarity” (p. 180). Crewmembers were required to learn and respect the rules when they first undertook the job. If they returned to the job seasonally, crewmembers used the rules in refresher courses to interpret fatality cases. Moreover, supervisors spontaneously asked crewmembers to recite the rules at work. If they could not, crewmembers were required to do pushups as punishment (p. 153).

Every USFS member that Desmond met valued the content of the Ten and Eighteen (p. 336). Desmond suggests that the USFS functioned “under two untenable assumptions: that [the] rules should never be breached and that fatalities primarily [were] the result of such breaches” (p. 334). While permanent supervisors were reluctant to criticize the rules, seasonal firefighters sometimes did (p. 336).

Although the USFS endorsed that compliance with the Ten and Eighteen would ensure safety from fire, Desmond suggests it was impossible to obey each rule when managing fire (p. 166). For this reason, using the rules to examine firefighting afterwards:

emphasize[d] the question of fault: it define[d] ‘competence’ as the successful and responsible execution of the Ten and Eighteen and ‘deviance’ as the failure to follow [the] rules. (P. 166)

In addition, Desmond suggests the rules were unclear because each involved unanswered questions ad infinitum (p. 168). For these reasons, Desmond recommends people must not simply consider wildland firefighting as the memorization, obedience, and evaluation of the Ten and Eighteen. To degrees, the rules were known in combination with “bodily and practical knowledge”, a combination of knowledge that constitutes “firefighting competence” (p. 168-170).

While crewmembers considered that firefighting competence was developed from firefighting experience, Desmond suggests that firefighting experience helped to “condition firefighting competence”, but was not the sole source or “primary source” of firefighting competence (p. 169). After describing a novel firefighting experience in which some crewmembers saw intense fire, sprayed foam and water on houses, scattered a woodpile, dug a scratch line with hand tools around two structures, and used hand tools to dismantle a burning porch from a home, Desmond asserts, the “principle source of [crewmember’s] firefighting competence was not to be found in training, experience, or obedience to the Ten and Eighteen”, but rather in their country-masculine upbringings (p. 170/172).

As country boys, [crewmembers] came to the Forest Service already acclimated to the tasks of wildland firefighting; [they] possessed shared histories and competences, a country-masculine habitus, that helped [them] coordinate [their] actions vis-à-vis one another. (P. 170)

As rural, masculine, working class boys, many crewmembers drove trucks, got dirty, axed wood, learned the roads near their home firebase on hunting trips, and learned how use their bodies in the forest (p. 177). They acquired a country competence that served as the foundation for their firefighting competence (p. 171). During the novel firefighting experience, they shared a “linguistic habitus” informed by “pressure situations” they experienced in their upbringings (p. 170). For instance, growing up they “took orders from a football coach who barked terse commands as [their firebase boss] did, and [they] orchestrated plays on the gridiron based on pithy phrases” (p. 170). Such experiences allowed them to communicate with few words. Crewmembers “didn’t intentionally coordinate each action”, nor did they “formulate a game plan” when they managed the fire (p. 170). Their actions “seemed to coordinate themselves” (p. 170).

Once crewmembers accept[ed] the organizational common sense of the Forest Service, they beg[an] to develop a certain disposition towards firefighting, a disposition through which they place[d] their faith not in supervisors, fellow crew members, or deities, but in their individual abilities alone. And if they [were] competent, so [went] the logic, if they kn[ew] and observe[d] the Ten and Eighteen, they ha[d] nothing to fear from fire. (P.185)

In sum, crewmembers possessed a “general” country-masculine habitus, which included bodily knowledge, as well as them sensing they possessed country competence and knowledge of the land. The country-masculine habitus easily connected to the organizational common sense of the USFS through formal and informal processes of socialization, then started to transform to a “specific” wildland firefighting habitus, which included bodily knowledge that conditioned, as well as crewmembers sensing they possessed firefighting competence and knowledge of how to manage the land (p. 12).

Desmond suggests that once crewmembers were socialized to the organizational common sense, they were aware wildfire could overpower them, but believed they could “rely on their knowledge to steer clear of the deadly flames” (p. 189). To different extents they considered their job “no more dangerous than any other” and “not so risky an endeavor at all” (p. 190/192). The idea of “dying on the fireline [was] so distant from crewmembers’ imaginations that they [found] the idea comical” (p. 190). These attitudes of danger and risk were possible because to various degrees all USFS wildland firefighting section members possessed “an *illusio of self-determinacy*, an acceptance of and investment in the organizational common sense of the Forest Service, through which they approach[ed] danger as un-danger, risk as un-risk” (p. 194 emphasis original). Desmond contends that the USFS cultivated the *illusio of self-determinacy* in firefighters mostly by socializing them to the Ten and Eighteen and conceptions about the Ten and Eighteen (p. 267).

The *illusio of self-determinacy* was a “collective belief that the uncontrollable force of wildfire [was] completely within firefighters’ control and therefore devoid of danger” (p. 14). Crewmembers did not deny the harm of fire (p. 194). But to degrees transformed fire to appear harmless. In the most severe case, the:

actor who function[ed] under an *illusio of self-determinacy* transform[ed] the harm into a malleable object (or transform[ed] himself into an invincible subject) and thus erase[d] harm altogether. Hence this *illusio* escape[d] the rigors of risk by anticipating it. (P. 194)

The death of a firefighter was the “ultimate challenge” for the *illusio of self-determinacy* (p. 267).

Shortly after the death of a USFS veteran firefighter by fire in Arizona in 2003, Desmond suggests that an external, public eulogy and an internal, organizational eulogy

appeared (p. 228). By media, public speeches, lowered flags, mourning periods, a plaque, and a statue, the external eulogy was associated with representing the firefighter as a national, altruistic hero (p. 230). By the organizational common sense of the USFS, the internal eulogy was associated with some workers ritually considering that “all dead firefighters, in one way or another, were incompetent firefighters and ultimately were responsible for their own burns” (p. 230-233). National and cultural values influenced the eulogies.

Whereas the external eulogy gained meaning by connecting the widespread convictions of symbolic honor and masculine sacrifice, convictions linked to ideas of nationalism and heroism, the internal eulogy borrowed from ideas of American individualism, autonomy, and self-reliance. Through the former, the Forest Service maintained legitimacy with the surrounding community; through the latter, it hoped to gain legitimacy in the eyes of its workers. (P. 233)

Desmond suggests how the USFS managed death made the ritual considerations of some USFS workers possible (p. 247). Desmond indicates one can identify four stages in how the USFS managed death (p. 257). In the first stage, investigators reconstructed events that led up to the death using “accident manuals” that directed them to identify multiple causes of the death (p. 247-248). More than one manual directed investigators to search for:

‘people causes,’ mistakes made by those injured or killed in the accident; ‘management causes,’ oversights and blunders made by fire supervisors or top administrators; ‘equipment causes,’ mechanical breakdowns or failures that in some way caused the accident; and ‘environmental causes,’ how fire weather or fire behavior functioned as a factor in the accident. (P. 247)

Although four causes were outlined in most manuals, more pages were dedicated to examples of people causes, which were typically Ten and Eighteen violations (p. 248). Moreover, the manuals coached “investigators to downplay management, equipment, and environment causes”, and instructed investigators to think of these causes as “somehow

linked to people causes” (p. 248). In the first stage, investigators also created case studies from their findings, which were made available to the public, but were rarely read by firefighters (p. 249). In the second stage, content from case studies was quickly circulating to the wildland firefighting community in “truncated reports,” “memos,” and “press releases” (p. 249). In the documents, fatalities were often “attributed to the mistakes of firefighters and low-level supervisors” (p. 251). In the third stage, content from second stage documents was removed in the creation of “training materials and small handbooks”, which were “assigned in training classes”, and were regularly read by firefighters (p. 251/250). Training materials and small handbooks depicted people causes as “the leading *and only* causes of accidents” (p. 250 emphasis original). For this reason, third stage documents incorporated the organization’s internal logic about firefighter incompetence, personal accountability, and individual responsibility. Desmond suggests that third stage documents therefore contained “universal claims about the incompetence of the dead”, which “predisposed” firefighters to blame their dead counterparts, even when second stage documents stressed many causes leading to deaths (p. 251). In the fourth stage, the organization’s elite reinforced and reproduced the organizational eulogy and grouped “every fallen firefighter with the not-good-enough dead” (p. 251). Thus:

when the illusio of self-determinacy [met] its ultimate challenge—the death of a firefighter—the Forest Service react[ed] by erasing risk and exaggerating deviance. As a result, the illusio [did] not weaken in the face of death; it fortifie[d], leading firefighters to distance themselves from the dead as well as from the objective dangers of their job.

This strategy [was] possible only because crewmembers more or less agree[d] with and help[ed] to reproduce this illusio, this rational myth connected to the larger cultural ethos of individualism and personal accountability.” (P. 267)

But while crewmembers distanced themselves from the dead by rituals of blame, about conceptions of firefighter competence and deviance, because “being a competent firefighter [was] intrinsically bound up with the symbolic reproduction of country masculinity, the incompetent dead fail[ed] both at firefighting and manliness” (p. 344). For this reason, Desmond claims that the 14 wildland firefighters in *On The Fireline* blamed “victims of fire for (quite literally) not living up to certain standards of masculinity” (p. 344).

In *On The Fireline*, Desmond ultimately suggests that wildland “firefighters prize competence and control above all attributes” and “view masculine aggression and courage as negative qualities” (p. 8). They view “risk as something that can be tamed, safety as something they are personally responsible for, and death as completely avoidable through competence” (p. 8). Moreover, power and inequality influence people to start and continue risk taking, and organizations can influence how people perceived risk, safety, and death (p. 9-10/87). In addition, people taking risks do not simply rely on rational calculation, but on corporeal knowledge acquired from past experience, which can be organizationally influenced, as well.

According to Desmond, in private some crewmembers occasionally joked about women firefighters and spoke of them as sexual objects. However, crewmembers “judged many women firefighters by the same yardstick they used to measure male firefighters: firefighter ability and country competence” (p. 38-42). Desmond’s crewmembers sometimes criticized women “for being too daring”, which, Desmond alludes, spurred from women firefighters being unfamiliar with the performance of the correct risk taking masculinity, one whereby masculine aggression and courage were considered negative

qualities (p. 197/8). For these reasons, Desmond suggests women firefighters were obliged to act in a specific way to “earn the respect of their male coworkers” (p. 339). If “they act[ed] ‘too feminine,’ they [could] be made into objects of sexual fantasy” (p. 339). If “they act[ed] ‘too masculine,’ they [could] be considered loose canons who overexert[ed] themselves” (p. 339).<sup>11</sup>

Desmond’s interpretation of being and becoming a USFS wildland firefighter is greatly centered on a general and longitudinal trajectory of being and becoming a wildland firefighter. The interpretation indicates that organizations can powerfully influence wildland firefighters through trust, which can influence how wildland firefighters view and experience risk. Desmond suggests that crewmembers’ similar upbringings prepared them to trust the USFS and its internal logic about risk, danger, and safety. Crewmembers initially came to trust the USFS through accepting its symbolic struggles. Once crewmembers trusted the USFS’ internal logic, which Desmond suggests was to a much greater extent themed on individualism rather than collectivism, they started putting faith in their own, personal bodily and practical knowledge. They started to become more self-confident in their individual abilities to control fire. To some degree, this made them view fire as harmless. The risk associated with managing fire was in some way and to some extent anticipatorily transformed. How the USFS dealt with the deaths of firefighters strengthened crewmembers’ attitude of fire as harmless, which presumably meant they became more self-confident with the deaths of firefighters. Thus Desmond provides an example of how trust in an organization can lead to trust in oneself,

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<sup>11</sup> In *On The Fireline*, it seems Desmond misrepresents the literature on risk taking (Lois 2008), makes generalizations about the USFS from the few wildland firefighters in the study (country-city binary), and uses an analytic framework about the human body that insufficiently accounts for change.

which can ultimately change how risk is viewed and experienced. I show later, however, risk is sometimes increased, decreased, revealed, concealed, and anticipatorily transformed through trust in different entities. Desmond seems to suggest one example of how trust in an entity (the USFS) leads people to develop self-confidence (a concept of trust) that anticipatorily transforms and increases risk for them. These ideas are useful for this thesis.

Although Desmond (2007) offers an interpretation of being and becoming a wildland firefighter that accounts for risk and trust, so much about risk and trust that is integral to being and becoming a wildland firefighter is not included in Desmond's interpretation. For example, Desmond focuses little attention on wildland firefighter trust and distrust in various types of training content, as well as acquired knowledge which is not directly part of formal training, and how these relations of trust can change wildland firefighters' experiences of risk. Desmond focuses little attention on wildland firefighter trust and distrust in their counterparts and organizations, wildland firefighter crew composition, as well as mutual trust among wildland firefighters, and how these relations of trust can change wildland firefighters' experiences of risk as well. These are only a few examples that begin to suggest deficiencies in Desmond's interpretation. I consider that Desmond may have inadequately interpreted wildland firefighter trust and how they can experience risk by focusing little attention on wildland firefighter talk about specific risk taking situations.

#### SHELLEY PACHOLOK

Pacholok's (2009) research deals with a specific risk taking situation, but risk and trust were not central topics of the analysis. Even so, the research offers some useful

ideas for this thesis about ideal human qualities that are fundamental to trust among wildland firefighters. Pacholok's (2009) research focused on 'men' and 'masculinity' associated with the time during a fire in Kelowna, British Columbia in 2003, as well as some time after the fire. Pacholok suggests that a social hierarchy of masculinity structured the timeframes, "one in which City of Kelowna firefighters received more recognition, rewards, and status from the media and the public than other firefighting groups" (p. 482). Wildland firefighters were one of the other firefighting groups.

Pacholok produced data for the research in 2004 through informal observations at fire management sites, in-depth interviews with firefighters, and informal interviews with people involved in firefighting efforts. News articles and online news sources were also used in the research (p. 478-481). Of the people interviewed, 34 were classified as men, and six were classified as women (p. 478). Data were analyzed and written about with much attention on masculinity, which Pacholok "defined in oppositional relation to understandings of what is feminine" (p. 475).

In the research, Pacholok suggests how the physical organization of groups of firefighters in relation to the fire's location and the media coverage of the fire contributed to the social hierarchy of masculinity and its effects (p. 483). During the fire, structural firefighters were physically closer to the media more often than other firefighting groups. For this reason, structural firefighters received more media coverage and more public donations. In the media coverage of the fire, firefighters were portrayed as heroes, sometimes "explicitly (through the use of the word hero)", and sometimes "implicitly (by referring to firefighters as courageous, selfless and so on)" (p. 485). According to Pacholok, the media beneficially shaped structural firefighter reputation, supported

dominant cultural ideas of “manliness” to connect with readers, and propagated “hegemonic constructions of masculinity” through its heroism rhetoric (p. 486). In addition, the media “implicitly referenced ideals of masculinity such as strength, aggression, courage in the face of danger, heterosexuality and stoicism” (p. 487).

The media’s own boundary work evoked and perpetuated the parameters of manhood that ultimately provided a context of support for the dynamic reproduction of hegemonic masculinity...[T]he collective actions of the media worked to (re)inscribe symbolic boundaries around hegemonic masculinity, which ultimately allowed the gendered strategies of self invoked by structural firefighters to take hold. (P. 487)

While the public appeared to praise firefighters as heroes, wildland firefighters generally felt that the heroism narrative was not “necessarily” aimed at their own firefighting group (p. 487). Pacholok suggests that because wildland firefighters were “largely overlooked in the media coverage of the fire, perhaps it is not surprising that they were somewhat skeptical about the heroism message that permeated the local media” (p. 487). Most structural firefighters, conversely, “seemed to recognize that the heroism narrative” was aimed at their own firefighting group (p. 487). Although the public called structural firefighters heroes, all structural firefighters “denied being heroes and gave the trite answer that what they did was just ‘part of the job’” (p. 488). Pacholok contends that ultimately, the media “exacerbated” the social hierarchy of masculinity, and the “perceptions of the firefighters themselves” perpetuated the social hierarchy of masculinity (p. 488).

Pacholok suggests that a credibility contest resulted through which firefighters constructed superior selves and group boundaries, attempting to prove their masculinity, in an effort for dominance (p. 488-489/494). Individuals attempted to prove that they and their affiliated groups better expressed qualities of superior selves at the fire. Pacholok

contends that the qualities were analogous to ideal masculine, hegemonic qualities. While there were boundaries between the firefighting groups before the fire, the social hierarchy was “exacerbated, rather than created, by the events surrounding the fire” (p. 489).

According to Pacholok, firefighters responded to the situation by:

strengthening and reinforcing these boundaries by undermining the competence of those outside their occupational group.

They accomplished this by adopting a measuring stick of firefighting competence that was variously deemed to include remaining calm in crisis, using aggressive tactics, controlling emotions, and exterminating fire...The firefighters drew on these criteria to demonstrate that their group was superior to other firefighting groups. Because these standards are analogous to culturally dominant ideals of masculinity, undermining firefighting competence simultaneously undermined the masculine integrity of the targeted group. These strategies are indicative of the importance of hegemonic masculinity to firefighters, as workers often judge members of other groups to be deficient in respect to the criteria they value most (Lamont, 2000).

The firefighters’ gendered strategies of self not only reinforced occupational boundaries but created boundaries that delineated the difference between ‘us’ (the competent firefighters and ‘real men’) and ‘them’ (inferior firefighters and subordinate men). Ultimately, these tactics were attempts to erode the credibility of the firefighting group to which they were directed. (P. 489)

Pacholok proposes that some wildland firefighters portrayed structural firefighters as not remaining calm under pressure and lacking knowledge of wildland fire. Some structural firefighters portrayed wildland firefighters in the same way. For this reason, Pacholok suggests that the firefighters were contesting which group was composed of real men (p.489-491). Seemingly linking aggression to risk taking, Pacholok contends that there was evidence of the implication among structural firefighters and wildland firefighters that “firefighting competence requires taking risks, and (implicitly) those who are willing to take those risks are the most masculine” (p. 491). In addition, Pacholok maintains firefighters suggested that others were incompetent by “associating them with

characteristics stereotypically associated with femininity” (p. 429). One structural firefighter, for example, considered wildland firefighting tactics passive in comparison to structural firefighting tactics. In addition, some wildland firefighters ridiculed the Kelowna fire chief for crying in public, and a heavy equipment operator “ridiculed structural firefighters who took stress leave and were otherwise having difficulty dealing with the fire” (p. 439).

Pacholok suggests that structural firefighters reinforced their occupational and symbolic boundaries by strategies of superior self to maintain their top position on the social hierarchy of masculinity, a position they held before the fire. Non-structural firefighters, however, used strategies of superior self to attempt to “rescue their dignity, power and self-esteem in light of the fact that they were on the lower end of the status hierarchy” (p. 489/493-494). Every firefighting group tried to “demonstrate that their group was populated by exemplars of masculinity and firefighting competence because they wanted to show that their group members were all of a certain character and quality, while others were not” (p. 494). All firefighters seemed unaware of “their boundary work and strategies of self” (p. 494).

Pacholok proposes that the effects of boundary work and strategies of superior self are harmful because they result in inequality between individuals and groups themselves, and between the symbolic benefits (“honor, prestige, and authority”) and material benefits (“political and material resources”) individuals and groups are rewarded (p. 495). Pacholok suggests that many firefighters experienced bad effects after the fire, such as marital difficulties, post-traumatic stress disorder, stress leave from work, and

resignation, and that at least some of the bad effects were related to the credibility contests (p. 495-496).

Pacholok's interpretation of being and becoming a wildland firefighter is not centered on analyzing trust among wildland firefighters and how wildland firefighters can experience risk. This does not preclude the interpretation from offering useful ideas about trust for this thesis. Although I consider that Pacholok mostly misinterprets data in the study, seemingly from a lack of contextual knowledge about wildland firefighting and structural firefighting, as well as from an unreasonable reliance on tenets and stereotypes of particular theories, some of the ideas about firefighting competence in the study can compliment this thesis. I later show that remaining calm in crisis and possessing knowledge of wildland fire are ideal human qualities that are involved in relations of trust among wildland firefighters and how wildland firefighters can experience risk.

CHRISTINE ERIKSEN, GORDON WAITT, CARRIE WILKINSON

Similar to Pacholok (2009), Eriksen and Waitt's (2016) and Eriksen, Waitt, and Wilkinson's (2016) interpretation of being and becoming a wildland firefighter is not centered on analyzing trust among wildland firefighters and how wildland firefighters can experience risk. It appears that both articles were created from data produced in interviews in 2011 and 2013 with 27 people of many wildland firefighting capacities in Australia. Of the people interviewed, 19 were classified as women, and 8 were classified as men. The articles were greatly themed on ideas of gender and sex. Eriksen et al. (2016) suggest that people in interviews identified that their organization had been unsettling the "patriarchal workplace" by actions such as banning pornographic magazines and introducing female uniform sizes. All people in the study "could identify gender

inequality, and were optimistic of ‘generational change’ driven by an ageing workforce and an influx of new staff’ (p. 1300). Every person mentioned that women “had a role to play in all aspects of wildland firefighting”, and the men who were interviewed generally “configured this role with essentialized gendered assumptions” (p. 1300). The men expected, for example, that women would “bring more balanced decision making and more nurturing teamwork” (p. 1300).

In the articles, the authors mostly suggest how NSWNPWS members challenged and reinforced dominant, regulatory discourses and norms of a hegemonic, wildland firefighting masculinity in their organization. Eriksen and Waitt (2016) argue:

the privileged subject of the wildland firefighter [was] cast by discourses of (predominately white) masculinities that position[ed] bodies of men on the frontlines as heroic, capable, physically strong and rational. The everyday narrative and performance of a place-based firefighting masculinity [were] so ingrained that they result[ed] in conscious and subconscious avoidance of appearances or allegations that align[ed] bodies with dominant understandings of femininity. Hence, the workplace and subject of the wildland firefighter [was] seemingly stabilized through the performance of a firefighting masculinity that include[d] the display of a masculine swagger, crude language and sharing stories of firefighting or heterosexual conquests...The competencies of people who [did] not conform to dominant gender norms [were] hidden behind bravado and cultural expectations that favor[ed] white, heterosexual men. (P. 69)

Eriksen and Waitt suggest that NSWNPWS members expressed hegemonic firefighting masculinity when they assumed men were better positioned for any firefighting capacity than women.

The doing of hegemonic masculinity [was] again reflected in participants’ accounts of the ‘tap on the shoulder,’ a practice described as the unofficial method used to single out staff to temporarily act in higher positions or be shortlisted for competitive positions, such as on helicopter crews. This practice of promotion [was] not just gender biased, but [sustained] the symbolic imagery of physically strong, heterosexual, outdoorsy men as *real* firefighters; it [was] also usually restricted to men who present themselves in this way. (P. 72)

Eriksen and Waitt contend that the dominant, regulatory discourses and norms of a hegemonic, wildland firefighting masculinity might encourage men to perform the firefighting masculinity for peer approval. The performance consequently disempowers women.

These are men who may condone equal opportunities in the workplace but might not have questioned the ways in which their own behavior reproduces gendered inequalities and sexism. Masculine privilege, ironically, extends men's assertion of their 'protection' of women perceived as being 'at risk,' a dynamic in which women may be complicit by accepting the subordination. This protective behavior, perhaps well meant in a stereotypically chivalrous or gentlemanly way, is also strongly linked to the ideology of heterosexuality that configures male bodies as strong, rational, bounded and authoritative. The ongoing bravado demanded of those men who strive to maintain self-esteem, confidence and respect through 'heroic' action on the 'battlefield' of firefighting poses ongoing physical and mental health challenges for men (Pacholok, 2013). (P. 78)

Eriksen and Waitt suggest that although some men effortlessly benefit from hegemonic masculinity, hegemonic masculinity also subordinates, disadvantages, and constrains women and other men (p. 73). Women who manage wildfires, however, may benefit from "reproducing a 'complicit firefighting femininity'" (p. 73).

Some women may be complicit by tapping into essential ideas of femininity, such as accepting overt sexist language, jollyng men along, choosing an offer of help over carrying a heavy piece of equipment or accepting the notion of being one of the 'girls.' At the same time, the experience of women who manage wildfire as rangers suggests being one of the 'girls' often plays out in terms of disempowerment through gendered job allocation. (P. 73)

According to Eriksen and Waitt, how "a gender order is reproduced within the patriarchal structures of firefighting is linked to visible and invisible resistance to change", which includes "becoming complicit with naturalized gendered roles and responsibilities that are aligned to a sexed body" (p. 73-74).

Eriksen and Waitt contend that there was a shared narrative among people in interviews which implied that for "women to become wildland firefighters required a

cohort of women to become complicit in reproducing gender norms that converge[d] men and masculinity with management of wildfire” (p. 74). They maintain that one narrative in their paper reflected the “work of academics who argue that women’s inclusion into the ranks of firefighting has usually been on the proviso that they meet the perceived nonemotional, no-nonsense, noncompromising masculine way of engaging with risk” (p. 74). Eriksen and Waitt suggest that women who adopt “seemingly masculine traits or attributes of a firefighting masculinity are arguably complicit with hegemonic norms of masculinities and femininities” (p. 74).

According to Eriksen and Waitt, resistance to “undoing a naturalized gender order is illustrated by everyday expressions that are used to define what it means to be a wildland firefighter” (p. 74). Men who manage wildland fire, for example, although they may not be aware of it, express a gendered language involving notions of “firefighting, warfare, masculinity and men” (p. 74).

Despite resistance to undoing a naturalized gender order, some NSWNPWS members challenge hegemonic gender norms that limit understandings of being and becoming a man who manages wildland fire (p. 75). Hyper-masculine firefighting behavior and bravado, for example, are gradually disappearing because many wildland firefighters consider the behaviors negative. Machoism can inspire anger and discontent in other firefighters. Bravado, which involves wildland firefighters personally sensing an unfounded and ultimate self-confidence, is disliked because counterparts consider that it can result in poor judgment that negatively affects every team member (p. 76). Eriksen and Waitt maintain that bravado, which is associated with a firefighting masculinity, is “both unnecessarily aggressive, even dangerously daring” (p. 76).

Eriksen and Waitt suggest that wildland firefighters challenge hegemonic gender norms “particularly” when they “embrace the principles of training and fitness programs emphasizing technique and stamina over physical strength” (p. 75).

Training for skill rather than strength, and fitness rather than muscles, are important ways to highlight the competence and leadership abilities of both men and women firefighters whose bodies do not conform to gendered shapes and sizes of those who manage wildfire. Nevertheless, techniques and stamina, as an alternative to strength, are invisible to the unknowing eye until observed and recognized as such. (P. 78)

Eriksen et al. (2016), however, suggest that privilege and priority are given to the “material body”—“body shape”, “stamina”, “endurance”, “size”, “strength”, and “fitness”—not to technique, an arrangement that can consequently undermine women (p. 1302-1303). They suggest that some women train their bodies to hegemonic, masculine standards of physical strength and endurance to not let their teams down. Eriksen et al. recommend that women who only train their bodies for strength to “counter perceived weaknesses of female bodies are complicit with the hegemonic masculinity of the organizational culture” (p. 1303). NSWNPWS members who could mostly comply with “gendered expectations about bodies and masculinity developed self-esteem, confidence, and respect” (p. 1303).

Eriksen et al. also provide information about technique and strength in relation to wildland firefighters judging and reputing one another and leadership styles. On wildland firefighters judging and reputing one another, Eriksen et al (2016) contend that:

Confidence in the firefighting competencies of self and others is central to how women and men perform and experience gender and relate to others on the job. Participants described having to ‘prove oneself’ to gain respect, responsibility, opportunity, and equality. It is therefore disappointing, after 20 years of affirmative action, that women and men continue to describe that gender equity was absent in relation to firefighting activity. The need for women to ‘prove’ themselves as competent, trustworthy firefighters before they could gain the

respect of their colleagues and superiors was particularly evident in discussion of, for example, operating heavy machinery and remote-area fieldwork. Narratives were also framed in terms of female firefighters needing to ‘prove everyone wrong’ by ‘keeping up’ with male colleagues in their crews, usually in terms of strength and stamina. (P. 1302-1303)

Eriksen et al. suggest that for some women, proving oneself to others was considered unnecessary once social reputation was achieved (p. 1303). Achieving such a reputation, however, meant that these women had proved they could meet the requirements of male counterparts (p. 1303). On leadership styles, Eriksen et al. contend that some women indicated they were generally criticized for expressing assertive leadership styles that were normally expressed by men (p. 1304).

For those women who [did] not comply with the normative gendered behavior, their social status in the organization [was] questioned with words such as ‘overconfident’ and ‘arrogant.’ However, for men assertive leadership styles were ascribed positive social status, described as being ‘self-assured’ and ‘confident.’ The negative connotation attached to women adopting an assertive leadership style mark[ed] a fine line of negotiation between institutional condemnation and praise. (P. 1304-1305)

Physical capacity and technique were additional factors that informed how some men viewed women in leadership positions. Eriksen et al. propose that:

Firefighters with skilled technique can perform alongside the strongest of colleagues...The privilege given to the material body obscures the competence of many women firefighters and undermines some men’s confidence in the abilities and leadership of female colleagues. (P. 1302)

As suggested, Eriksen and Waitt (2016) contend that wildland firefighters challenge hegemonic gender norms “particularly” when they “embrace the principles of training and fitness programs emphasizing technique and stamina over physical strength” (p. 75). Eriksen and Waitt claim to show this through two interview passages. They show a passage in which a “Male Training Coordinator” mentions that women firefighters in training are intimidated about how much strength it takes to start power pumps. The

training coordinator suggests that women firefighters lack self-confidence in this task, but once trainers show women firefighters correct techniques for starting power pumps, the women firefighters realize that starting power pumps is not necessarily about having strength. From the passage, Eriksen and Waitt suggest that when the “emphasis is shifted from physical strength to technical competence”, “dominant gender norms no longer neatly align with biological sex” (p. 76). Eriksen and Waitt also show a passage in which a “Female Operations Coordinator” refers to fitness test requirements for firefighters. The operations coordinator suggests that firefighters of a specific position were once required to complete the same test, but recently, a new test for the same position was implemented for firefighters under 68 kilos. The amount of weight firefighters were required to carry in one part of the test was lowered. The operations coordinator indicates that the change supported women and some men, especially those who were physically smaller than the wildland firefighters who once completed the original test. From the passage, Eriksen and Waitt suggest that:

Changes in fitness test requirements provide another example that illustrates how becoming a wildland firefighter is not aligned with physical strength...The demonstration of the fit body, [as described by the operations coordinator regarding the new fitness test], is not understood as being aligned to the sexed and gendered body, and benefits both men and women. (P. 77)

Ultimately, Eriksen and Waitt recommend that:

Undoing gendered workplace tensions revolves around negotiating two cultural expectations of men who manage wildfires: 1) how the sexed body is aligned with particular understandings of gender; and 2) the hierarchical patriarchal gender order that positions men above women in the process of decision-making. (P. 75)

On the first cultural expectation, as an example, Eriksen and Waitt (2016) suggest that:

one woman who manage[d] wildfire outline[d] how ‘collegial acceptance’ rest[ed] on her bodily proficiencies in performing a firefighting masculinity that involve[d] skills such as the use of a rake hoe...In [the] example, acceptance as a

ranger [was] based on reproducing the hegemonic gender norms through the physical training of bodies for strength demonstrated by using a rake hoe. (P. 75)

On the second cultural expectation, Eriksen et al. (2016) suggest that women are “restricted from certain decision-making roles unless they comply with masculine firefighting practices, such as non-emotional risk taking behaviors” (p. 1302). It seems that gendered assumptions about motherhood among most NSWNPWS members are related to both cultural expectations (see Eriksen et al. 2016: 1307). Some members in interviews indicated that maternity leave, as well as the demands of motherhood, childcare, and wildland firefighting hindered the progress of women in the fire program.

In relation to being and becoming a wildland firefighter, Eriksen and Waitt (2016) and Eriksen et al. (2016) focus little attention on how trust can change wildland firefighters experiences’ of risk. Their interpretation of wildland firefighters, nonetheless, provides some ideas within these terms that are useful for this thesis. I later show that physical capacity and rationality are ideal human qualities that are involved in relations of wildland firefighter trust and how wildland firefighters can experience risk. I integrate into this thesis the ideas that some wildland firefighters, influenced by ideas of gender, sex, and sexuality, may group counterparts as at risk and judge, repute, and trust counterparts differently.

STEPHANIE ROSS

Ross’ (2006) study of wildland firefighters offers similar ideas that are useful for this thesis. The research involved interviewing 15 wildland firefighters in Ontario in 2002, as well as participant observation of firefighters in Ontario. The 15 wildland firefighters were classified as women. The workplace was classified as a male-dominated, male-defined work environment (p. 86).

In the research, Ross (2006) suggests that female wildland firefighters were monitored and scrutinized more rigorously than the male wildland firefighters by male wildland firefighters and some female wildland firefighters. Surveillance of wildland firefighters was influenced by hegemonic masculinity and compelled female wildland firefighters to adopt a “‘competent’ workplace identity” (p. 85/87).

The managerial gaze, a central component of hegemonic masculinity, maintains the association of power in the workplace with masculinity...Fire managers apply constant surveillance or the threat of constant surveillance to fire personnel. Aided by the implementation of regimented daily routines that micromanage time, standards of appearance, and the dissemination of valued knowledge, the process instills in crew people an awareness that they are the subjects of constant scrutiny. (P 59)

Whereas when “a legitimate manager enact[ed] the gaze, he [was] ostensibly fulfilling a required supervisory role and applying its penetrating stare uniformly”, when most male wildland firefighters and some female firefighters appropriated and mimicked the gaze, the surveillance depended much more on “the gender of the individual being surveyed” (p. 78/59). To many managers individual “proficiency [was] not predetermined by gender” (p. 78).

Part of the appeal of the appropriated managerial gaze...was that it could be enacted by any crew person regardless of their hierarchical rank. The object of the gaze, in most instances, was a woman. Men applied the appropriated ‘managerial’ gaze to women as a demonstration of their hegemonic power. Women applied the appropriated ‘managerial’ gaze to other women out of fear, fear of being seen as the ‘other.’ (P. 145)

Ross suggests that when wildland firefighters appropriated the managerial gaze, female wildland firefighters were “monitored more closely (even when they [were] being monitored by other women) than their male counterparts” (p. 60). This forced female wildland firefighters “to negotiate a ‘competent’ work identity devoid of feminine characteristics” (p. 60). Because male wildland firefighters scrutinized female wildland

firefighters more than others, Ross suggests it was “difficult for women to fashion a ‘competent’ identity” (p. 85).

It seems that Ross indicates, physical competence (p. 61), training competence (p. 61-64), leadership characteristics to make sound decisions (p. 61), working often at the firebase to seem busy (p. 72-73), possessing valued knowledge about daily activities (a minority of male wildland firefighters kept the knowledge from female wildland firefighters, which could seemingly undermine female wildland firefighters’ competence (p. 78)), and not making mistakes (p. 79) were associated with competent work identities. Ross contends that regardless of “how closely women monitor[ed] the negotiation of a ‘competent’ identity, it seem[ed] that the quickest way to discredit them [was] to draw attention to the fact that they [were] women in a male-dominated environment” (p 81).

Ross suggests that the firebase and the fireline were spaces “constructed and maintained along masculine gender lines” (p. 93).

For the most part, hegemonic masculinity facilitate[d] the acceptance of a very limited conception of space, one where legitimacy [was] conferred upon a singular gendered performance...Within the relative safety of hegemonic masculinity, dominant members of the fire fighting subculture maintain[ed] ‘a leading position in social life.’ They assert[ed] the primacy of their position by reinforcing prevailing notions of space, notions that solidify the dominance of men and the subordination of women...The fire line, saturated with masculinity, [was] maintained as a gendered construct through the application of various forms of discipline. Of these, the appropriated ‘managerial’ gaze, the inexhaustible need to prove individual proficiency and pressuring fire personnel to perform, [were] the most pervasive means of extorting compliance amongst crew people. (P. 93-95)

Ross suggests that the appropriated managerial gaze was often applied to female wildland firefighters on the fireline more rigorously than to male wildland firefighters on the fireline (p. 96). Most female wildland firefighters applied the appropriated managerial gaze to other female wildland firefighters more rigorously on the fireline than they did to

male wildland firefighters on the fireline (p. 96). While women were “essentially graded” on their entire performance, more attention was typically given to their ability to use machinery such as power pumps and chainsaws (p. 96). Because of the size and shape of power pumps and chainsaws, some wildland firefighters indicate that the equipment was for men. When women were hesitant using chainsaws, some men regarded the “hesitancy as a confirmation that women [were] mechanically stunted, a condition that [could not] be remedied with instruction, patience, or time” (p. 99). Ross suggests that the

connection between man and machinery – that ‘natural’ mechanical aptitude thought to be an immutable truth – is part of the hegemonic masculinity that governs fire suppression...As such, women assigned a role requiring the use of machinery are often subjected to the appropriated ‘managerial’ gaze. Firefighters who subscribe to the edict that men are mechanically gifted may think it necessary to monitor the performances of women. By virtue of the fact that women are not men, it cannot be assured that women are particularly savvy with tools. The tacit assumption that men possess mechanical aptitude, however, is marked by general acceptance amongst many of the women. (P. 98)

According to Ross, proving individual competence and proficiency for respect and recognition as “acceptable additions to the crew system”, was central to identity formation for the women in the study (p. 102/104). Many women were required to work much harder than men to prove themselves, which was ultimately tiresome and led some women to reduce the amount of work they did or leave the fire program (p. 102-103).

The pressures women experienced by trying to prove themselves informed their “mindset” and deterred them from “being completely comfortable on the fire line” (p. 104).

In an environment defined by time objectives and stress, some Crew Leaders expect[ed] hastened and flawless work performance of their subordinates. Several attempted to elicit the performances by employing a managerial approach that often induce[d] frustration and anger amongst crew people. What emerge[d] from this particular model of management [was] a subculture of blame. (P 104)

Ross contends that when people are blamed for their actions it can begin to question their competence.

Although the fireline was a space constructed and maintained along masculine gender lines, Ross suggests that on the fireline

women [were] a destabilizing presence, transgressing established boundaries of masculine space and threatening the fragile construct of hegemonic masculinity. Female firefighters daily threaten[ed] the legitimacy of hegemonic masculinity by rejecting traditional supervisory models, demonstrating that they [were] comfortable on the fire line, and challenging the taken-for-granted assumption that pornographic material [was] a ‘natural’ part of the fire fighting experience.

Raising vexed issues for women and men alike, female firefighters initially destabilize[d] the masculine construct by challenging the pervasive assumption that men [were] the only individuals capable of supervising a fire crew. While women manage[d] volatile workplace identities that deviate[d] from ‘acceptable’ articulations, men harbor[ed] fears that their supervisory positions [would] be usurped. (P. 107)

In opposition to adopting traditional managerial practices, female wildland firefighters in supervisor capacities destabilized the “legitimacy of hegemonic masculinity by refusing to perform their supervisory role in an ‘acceptable’ manner” (p. 108). They used their own “detrimental workplace experiences as a cautionary tale” to employ techniques that reduced anxiety, frustration, and self-doubt among the wildland firefighters they supervised (p. 108/109).

Female wildland firefighters also destabilized the legitimacy of hegemonic masculinity by being on the fire line. Ross engages with material on traditional beliefs about “wooded areas”, such as wooded areas being dangerous and not a place for women and children, an “untamed natural environment” rather than a “domesticated space”, and a place that inspires anxiety, to suggest their lack of significance because most women

who were interviewed suggested that they felt “most comfortable fighting fire” (p. 110).

Ross contends that women often felt this way because they were busy on the fireline.

The discomfort that punctuate[d] daily interaction on the base [was] not prevalent on the fire line; women [did] not fear ‘being caught doing nothing,’ primarily because they [could] easily find something to do. In this context, women derive[d] a certain satisfaction from being completely absorbed in their daily routine believing that if engaged in work, they [could not] be subject[ed] to the scrutiny and ridicule of the appropriated ‘managerial’ gaze. (P. 111)

Another reason women felt more comfortable on the fire line rather than at their firebase was because they could connect with people and sense strong bonds of interdependence.

Female wildland firefighters also destabilized the legitimacy of hegemonic masculinity by contesting the prevalence of pornographic and objectifying material on (and off) the fire line, as well as male firefighters who rated the women in the material. Some female wildland firefighters contested the material by “confronting individuals with offensive material, physically leaving the area, and showing disapproval by ignoring members of the subculture that engage[d] in offensive behaviour” (p. 115).

In response to experiencing an influx of female wildland firefighters in the fire program, Ross suggests that the “dominant members of the subculture assert[ed] varying degrees of control over women’s bodies and shape[d] the manner in which these bodies [were] received” (p. 117). This was associated with the pervasive subcultural attitude that the female body was the “‘wrong body’” and incapable body for wildland firefighting (p. 118). Ross contends that this attitude, however, was challenged through women who forged relationships with people on crews (p. 123-124). The relationships were related to familial relationships and involved high levels of interdependence. According to Ross, the relationships supported the argument that women felt they belonged in wildland firefighting (p. 124). Rather than considering themselves intruders on the fireline, many

women considered their “presence in the crew system [was] a natural outcome of social progress” (p. 124). However, Ross suggests that sometimes the “‘family model’ tend[ed] to reify traditional conceptions of the fire line as a masculine construct” (p. 124).

The tacit assumption, made by both women and men, that women are naturally inclined to fulfill the duties typically associated with the home and family pervade[d] the fire line. Although their performances [reified] existing conceptions of gender and space, many women [did] not critically reflect upon the ways in which they daily perform[ed] the role of ‘caretaker or nurturer’ on their own crew. (P. 125)

Nonetheless, dominant members of the subculture asserted varying degrees of control over women’s bodies, shaping how the bodies were received and rejecting the presence of women in the space, by publically disseminating ‘intimate knowledge’” about women’s bodies (p. 126). The men publicized the ‘private’ bodies of women. Ross suggests that

dominant members of the subculture shape[d] the embodied experiences of women on the fire line. They influence[d] the ways in which others receive[d] the body of a female firefighter in two very distinct ways. By sexualizing the female body, women’s workplace integration [was] contingent on the reproduction of an identity devoid of active sexuality...It [was] also presumed that women, by virtue of their ‘feminine’ bodies, [were] incompetent. Thus, women [were] defined – sexually and physically – by the bodies they inhabit[ed] more than any other aspect of their identity. (P. 127)

Women were mostly defined sexually in one of two devalued ways. Firstly, women were labeled ‘Fire Sluts’ if the implication existed that they were “sexually active” with any male in the fire program (p. 128). Ross suggests that some women were “often pressured into the role of ‘Fire Slut’ because of geographic isolation” and they consequently received the name when the relationship was ended (p. 129). Moreover, some men in subordinate positions to women usually made suggestive comments about how women in managerial positions were promoted by performing sexual activity. The

connection became a way to “trivialize the myriad reasons why women occup[ied] positions of power” (p. 130). Secondly, women were labeled ‘lesbians’, typically unknowingly, when they failed to “declare their (hetero)sexuality, look the part, or show...interest in dating their male colleagues” (p. 128).

In a very literal sense, the ‘lesbian’ [was] a threat to the heterosexual dynamic so painstakingly constructed and maintained...To protect the heterosexual dynamic and maintain the ‘lesbian body’ as a cautionary tale, some of the most dominant members of the subculture [went] to great lengths to shape the way in which the threatening body [was] publicly received...The threat [was] most often neutralized through the use of derisive epithets that [were] applied as a warning or commentary on the lifestyle. (P. 130)

Reactions to the ‘lesbian body,’ a body that subcultural members generally argued was easily identifiable, served as a “reminder that sexual dissidents [were] not accepted in the Fire Program. Women associated with the ‘lesbian body’ [were] reduced to a base sexual function that [was] the most conspicuous part of their public identity” (p. 131).

The two definitions given to women expressed the message that “active female sexuality exist[ed] to service men, either as a spectacle or a means of satiating sexual appetite” (p. 131). The definitions left “no room for the legitimized enactment of female sexuality on the fire line” (p. 128). Ross suggests the definitions were meant to “punish women” (p. 128). Ultimately, depending on how women expressed themselves, most were “going to be seen as deficient women or deficient workers” (p. 132). When “‘femininity’ and ‘competence’ [were] constructed as mutually exclusive terms” (p. 133), women were identified as deficient workers.

Ross suggests that the idea of femininity in the wildland fire management community has been associated with “physical weakness and incompetence” for a long

time (p. 133). According to Ross, many firefighters on the contemporary fireline support the “binary distinction between male/female and masculinity/femininity” (p. 133).

[S]ome firefighters reject the idea that female bodies – conflated with femininity, weakness, and the private sphere – belong on the fire line. The bodily comportment of a ‘real woman’ does not allow for ‘competent’ performances in the male-defined workplace. Instead she embodies a kind of ‘feminine might’ that is incongruent with the hegemonic descriptors of masculine strength required to fight fire. (P. 133-134)

Ross proposes that the display of strength by women may be accepted in some spaces but not others, and that stereotypes about gender can result in people conceiving that women who show strength in masculine spaces are unnatural. In relation to Ross’ study:

Women in fire suppression [were] often associated with femininity and incompetence on the line or masculinity and ‘unnatural womanhood.’ Visible signs, such as wearing make-up and revealing clothing, signal[ed] to members of the subculture that women involved in such ostentatious displays [had] no interest in fighting fire. The prevailing belief amongst most men and women [was] that these individuals emphasize[d] rituals that maintain[ed] stereotypical beauty while shirking the laborious tasks that characterize[d] fire fighting. (P. 134)

Women who were thought to be not very useful on the fireline, who refused to carry their weight, and who pretended not to know how to do a task, also embodied the ideal of feminine incompetence and were not respected by most people. Stories of these women were told year after year and made “women’s negative experiences in the workplace a more salient and ongoing feature of their collective identity” (p. 136). Ross suggests that some women in the stories may leave the program, “but their reputations haunt those who stay” (p. 136).

Whereas some women truly did not carry their weight and were consequently not respected, Ross contends that some men who exhibited a poor work ethic lacked a “corresponding specter of masculine incompetence” because they were seen as individuals rather than as “part of a monolithic workplace identity/collective sex” (p.

136). When a male wildland firefighter exhibited poor work ethic, it was not generalized to other male wildland firefighters. When a female wildland firefighter exhibited poor work ethic, it was generalized to all female wildland firefighters.

The end result of the specter of feminine incompetence is that women who occupy a female body are at a decided disadvantage; the perceived shortcomings of femininity in a male-dominated workplace cast a pall over women attempting to construct a 'competent' identity. Although the body is viewed as one of the core territories of the self (Squires, 1994, 399), it is patently obvious that women in the Fire Program do not have control over the ways in which their bodies are received.

When negotiating a viable workplace identity, many female firefighters attempt to avoid conflation with the 'private' female body, a body inscribed with notions of overt sexuality and physical incompetence. It follows, then, that women must daily manage feminine subjectivity occupying the 'wrong body' on the fire line. Placed in this contrary position, women closely monitor their workplace performances in a manner that reproduces the act of being watched by dominant members of the subculture. (P. 137-138)

The process of generalizing behaviors to a monolithic workplace identity/collective sex happened when women made mistakes on the fireline. Ross suggests that to "escape the correlation, a number of women interviewed attempt[ed] to eliminate the possibility of making a mistake, obsess[ed] over passed transgressions, and shed the unwanted parts of their gendered identity that link[ed] them to incompetence" (p. 81).

According to Ross, many female firefighters felt compelled to "construct and maintain a 'competent' workplace identity based on the ideological supposition that they [were] 'conceptual men' (Ranson 2005, 150)" (p. 138).

Presenting themselves as a harmless addition to the space, female firefighters emulate[d] male styles and behaviour which '[were] presented as organizational expectations and simultaneously proclaimed as gender-neutral' (Ranson 2005, 150)...Women who [made] it abundantly clear – through style of dress and attitude – that they [did] not pose a visceral threat to these 'organizational expectations,' mute[d] the salient aspects of their femininity. (P. 138)

Some women, for example, wore clothing that was similar to men's clothing and did not accentuate the female body. If women wore clothing that was perceived as feminine, it inspired assumptions about the "physical abilities of the 'private' female body inhabiting the clothes" (p. 140).

Ultimately, Ross suggests that many women regulated and muted femininity to be considered competent firefighters. They usually adopted the "image of 'the worker,' one of the sterile body completely unfettered by the messy restraints of sexuality and overt femininity" (p. 140). Moreover, Ross suggests that there were differences between male and female wildland firefighter identities that were made clear during the time when firefighters were on their highest alert status for dispatches.

During 'dead red,' the romantic notion that fighting fire is a physically demanding job is laid to bare. Women who enter the 'exciting' field of fire fighting discover that mental tedium and negativity characterize specific work environments, like the base. It stands to reason that some men have a vested interest in maintaining the romanticized notion of fire as one of the most physically demanding jobs out there; a significant part of their identity is based on the powerful premise that fire fighting requires tremendous bravery and bodily strength...Building community and fraternity around ideals of shared risks and hardship, a number of male firefighters seek to maintain the popular notion that fighting fire is dangerous and laborious work suited for men. This pervasive notion does not accurately reflect the actual experiences of women fighting fire, many of whom encounter difficulties when dealing with the recurring boredom of red alert. (P. 74)

Although Ross (2006) focuses little attention on how relations of trust among wildland firefighters can change their experiences of risk, Ross' interpretation of being and becoming a wildland firefighter offers some useful ideas to help compliment this thesis within these terms. I later incorporate into this thesis the idea that some wildland firefighters may judge and repute counterparts differently based on ideas of gender, sex, and sexuality. I suggest they may have perspectives about gender, sex, and sexuality that

inform the knowledge they create of their counterparts, which consequently impacts the trust they grant their counterparts and how they experience risk with their counterparts.

## GENDER, SEX, SEXUALITY

In interpreting how trust can influence wildland firefighters' experiences of risk, I begin from a different theoretical foundation than others who have interpreted the work of wildland firefighters, especially in relation to how I address ideas about 'gender', 'sex', 'sexuality', and other human identifiers. I refrain from what I consider greatly unnecessary human differentiation and division. Sometimes authors unreasonably interpret parts of their data and unintentionally create division and differentiation among people in their research by relying on structural tenets and stereotypes of particular theories.<sup>12</sup> Some theories of gender, for example, often separate humans into two overarching categories: 'masculinity' and 'femininity'. Contrary to the general intent underpinning these theories, as well as the general intent of many authors who use them, the separation can empower division between people; potentially, in consequence, harm people; and, highly limit understandings of gender. As an author, showing that many people express life with terms such as 'masculine' and 'feminine' is one thing. To then interpret and express life concretely within these terms using tenets of particular theories

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<sup>12</sup> I understand there is a range of different understandings of gender, sex, and sexuality that are more reasonable than some understandings in this chapter. For example, Butler's notion of performativity and gender is seemingly a more fluid and reasonable understanding of gender (Butler 1988; Butler 2009). However, Butler appears to espouse a highly social-constructionist approach, does not necessarily account for the power of situational requirements that influence gender aside from the human world, and upholds gender (and additional) identity categories without necessarily examining similarities across categories. On the last point, Butler seems to rarely speak of human behaviors that are significant across categories, although sometimes there are slight indications of their existence (e.g., see Butler 2015: 10). This section of the chapter should be read as a critique, which mostly emanates from articles in the chapter about wildland firefighters, gender, sex, and sexuality.

is another. Some examples about gender from the studies in this chapter may assist in clarifying my perspective.

While I accept that ideas about gender, to different extents, influence individual wildland firefighter perceptions of their counterparts and have inhibited and assisted people in being and becoming wildland firefighters, I understand that some authors in this chapter, who depict wildland firefighters primarily with social science and humanities perspectives about gender, occasionally inflate the influence of gender in relation to human behaviors, gender people and situations, and inadvertently create human division.<sup>13</sup> It seems this partly results from them adopting theoretical perspectives centered on gender, which include many assumptions and stereotypes about gender, and overlaying the perspectives on data in interpreting the data. Occasionally, it appears that they are not even trying to negate that perhaps gender is not the main reason, nor a very influential reason, for influencing some human behaviors. It seems similar consequences can also result when researchers adopt theoretical perspectives primarily about single group identifiers other than gender, such as race or class. The use of intersectionality research perspectives can also result in seemingly unreasonable interpretations of data.

Pacholok (2009), for example, maintains that remaining calm in crisis is analogous to an ideal of ‘masculinity’ that ‘men’ who manage fire value most. When ‘men’ talked of other ‘men’ who managed fire not remaining calm in crisis, Pacholok concludes they were expressing that the other firefighters were not ‘real men’. It strongly

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<sup>13</sup> Historically, most wildland firefighters have been people often deemed ‘men’ or ‘male’ (see Chapter 3). In some time periods and places, managing wildland fire was considered a job for ‘men’ and ‘males’, which inhibited who could be and become wildland firefighters. Especially during the last four to five decades, however, there has been a general trend of more people often deemed ‘women’ or ‘female’ undertaking wildland firefighting.

seems that Pacholok overlays the concept of 'real men' on the data in interpreting the data in the study. Moreover, Pacholok seems to assume that gender was the reason for why firefighters valued remaining calm in crisis. Perhaps, however, wildland firefighters primarily valued remaining calm in crisis because sometimes this is greatly required when people manage wildland fire. If this is the case, it seems unreasonable and divisive that Pacholok fully associates remaining calm in crisis with 'men' and 'masculinities'. I suggest later that remaining calm in crisis is a human behavior associated with managing wildland fire well and safely, despite whether a person is deemed or identifies as 'male', 'female', 'intersex', 'masculine', 'feminine', or anything else. Although people in this thesis may express life differently, which is fine and is shown, at the theoretical level I regard human behaviors as human behaviors. I refrain from connecting human behaviors to certain categories of gender (and other identity categories). In reading Pacholok's article, I sense the firefighters' behaviors were much less the consequence of gender and much more the consequence of job requirements and human reactions to a situation they felt was unfair.

Similar to Pacholok (2009), Eriksen and Waitt (2016) and Eriksen et al. (2016) also seem to sometimes overlay gender stereotypes and categories on the data in interpreting the data and divide people in their research. Some interpretations they propose about gender from the data they show appear greatly unreasonable. It seems that they sometimes, for example, mute the voices of people in their study, and only include the portions of talk that relate to gender in their interpretation.

Connecting using a rake hoe with firefighting masculinity and strength is an example of Eriksen and Waitt (2016) and Eriksen et al. (2016) overlaying gender

stereotypes and categories on data in interpreting data and dividing people in their research. Although wildland firefighters occasionally use hand tools too much and too little to manage specific wildland fires, sometimes using hand tools is the best and only option to achieve wildland fire management objectives. Nonetheless, Eriksen and Waitt's (2016) and Eriksen et al.'s (2016) description of wildland firefighters' valuing of strength in comparison to technique seems greatly exaggerated as well. Technique, at least in other content that involves wildland firefighters (see Chapter 3), seems to have always been highly valued, realized, and discussed among wildland firefighters. Eriksen and Waitt (2016) and Eriksen et al. (2016) also seem to inflate the type of strength that most wildland firefighters perceive is required for the job and the levels of strength that are generally valued. They seem to greatly dismiss that even if a person has 'perfect' technique, some degree of strength will always be required to achieve the demands of wildland firefighting. Associated with their ideas about strength, they also seem to continually assume that 'women' appropriate 'masculine' firefighting behaviors and norms, with little consideration of the possibility that some 'women' may undertake wildland firefighting with such behaviors and norms already instilled.

Perhaps most problematic about Eriksen and Waitt's (2016) and Eriksen et al.'s (2016) research, though, because they seem to be offering advice to NSWNPWS through their research to improve the organization and do not discuss the next point in their research, is the possibility that they overlooked many potential problems with an organization having two fitness tests for one employment position. I understand there are job requirements for specific positions of wildland firefighting and fitness tests should, as is reasonably practicable, match them. I understand that having one bona fide

occupational fitness test is the fairest and the safest arrangement for most people. If the wildland firefighters who are greater than 68 kilos are required to complete a more arduous fitness test than those who are less than 68 kilos for the same employment position, then those who are greater than 68 kilos could argue that their organization is discriminating against them. Moreover, if NSWNPWS firefighters give as much value to strength as Eriksen and Waitt (2016) and Eriksen et al. (2016) suggest, and if Eriksen and Waitt (2016) and Eriksen et al. (2016) want to help undo firefighter perceptions of strength and group divisions associated with these perceptions, then having two fitness tests as described may exacerbate divisions by providing a perceptually legitimate framework for wildland firefighters to talk of divisions.

In interpreting the work of wildland firefighters, I refrain from what I consider greatly unnecessary human differentiation and division. At the theoretical level, I regard human behaviors as human behaviors and I refrain from unnecessarily essentializing human behaviors to performances of categories of gender, sex, and sexuality. For example, at the theoretical level I would consider using a rake hoe a human behavior rather than a masculine behavior. Nonetheless, at the empirical level, I show how some wildland firefighters use identity categories to classify human behaviors. I understand that some people will highly disagree with my perspective. Some people may even argue against my perspective and make sense of it by categorizing me. My perspective is not necessarily congruent with some current and popular theories. I also understand the ease with which some people will disregard my words, conceiving that I am in denial or lacking consciousness.

## A SHORT DISCUSSION

In this chapter, I showed that studies about wildland firefighters that are framed by social science and humanities research perspectives offer some useful ideas for this thesis about how trust can change wildland firefighters' experiences of risk and how gender, sex, and sexuality can be involved in being and becoming wildland firefighters. Perhaps most notably for this thesis, the studies suggest that perspectives about gender, sex, and sexuality can inform the knowledge wildland firefighters create about their counterparts, which I later suggest may consequently impact the trust they grant to their counterparts and how they experience risk with their counterparts. As I showed, however, the studies inadequately detail the significance of trust in being and becoming a wildland firefighter in relation to risk. I intend to complement the studies with this thesis by providing the wildland firefighting literature with an interpretation of a general trajectory of being and becoming a wildland firefighter, which details the significance of trust in self-construction processes.

As I showed in Chapters 2 to 4, the risk taking and wildland firefighting literatures overall inadequately provide interpretations of wildland firefighter self-construction in relation to risk, which detail trust in self-construction processes. In the next chapter, I illustrate the research process that permitted me to supplement this deficiency in the literatures.



## Chapter 5: Details About the Research Process

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### ‘NARRATIVE INQUIRY’ AND ‘AUTOETHNOGRAPHY’

I undertook a research project from September 2012 through July 2017 to provide an interpretation of risk taking and self-construction among wildland firefighters. This thesis is the result. I used some assumptions from ‘narrative inquiry’ and some assumptions from ‘autoethnography’ to help produce, analyze, and represent 14 wildland firefighter’s stories as told to me in interviews as well as my own stories. My own assumptions also influenced the research process.

It could be said that narrative inquiry is an expanding collection of ideas that people sometimes draw on to help guide their research processes. It could also be said that people who use the methodology generally examine how stories are told and how stories are associated with historical, cultural, social, and political contexts. Trahar (2009) suggests “narrative inquirers strive to attend to the ways in which a story is constructed, for whom and why, as well as the cultural discourses that it draws upon” (para. 1). Similarly, but framed in a discussion on ‘narrative analysis’ and ‘narrative studies’, Reissman (1993) suggests:

The methodological approach examines the informant’s story and analyzes how it is put together, the linguistic and cultural resources it draws on, and how it persuades a listener of authenticity. Analysis in narrative studies opens up the forms of telling about experience, not simply the content to which language refers. We ask, why was a story told *that way*? (P.1)

Given these descriptions, it may seem that narrative inquiry is straightforward and homogenously used. This is not the case. People who proclaim to use, extend, or create narrative inquiry research approaches, may employ different data production methods, different data analysis methods, and different data presentation methods, which are

influenced by various theoretical and epistemological orientations. Whereas one person may use a specific technique to produce stories in interviews for later analysis, another may use stories from magazines, diaries, and television shows. Whereas one person may use a specific method to analyze interview data with the assumption that the data captures some of the experience that informed it and can therefore be used to propose what may really be happening, another may use a different method to analyze interview data with the assumption that the data is solely a representation of experience, cognitively constructed from a person's present position, and can therefore not be used to propose what may really be happening. Outlining phenomenon that some people have focused on also shows the diversity of narrative inquiry research. People have focused on who can tell certain stories and why; how interview experiences and contexts impact the stories that are told; how people present themselves in interviews; how storylines are created among people in interviews; how stories may hint at future behavior; how speech and body are used to tell stories; and how time, place, and space are represented in the stories people tell (see Riach 2009; Walby 2010). Although these examples show narrative inquiry research diversity, there are similarities as well. This was partly shown through the general descriptions of narrative inquiry.

From such a general position, it could be said that many people who ascribe to and use narrative inquiry nowadays endorse and value researcher-reflexivity, namely, practices through which researchers consider and discuss their influence on the research process because their values, experiences, and views impact the knowledge they create (Trahar 2009; Lynch 2000). It could also be said that in the last sentence, 'potential' should come before 'influence', 'can' before 'impact', and that 'discuss' should be

omitted. People's values, experiences, and views impact their definitions of their values, experiences, and views. Ultimately this permits additional narrative inquiry research diversity, but in such cases on the topic of researcher-reflexivity. Reasons for why researchers are sometimes advised to be 'reflexive' therefore vary (Lynch 2000). Some people suggest being reflexive can reduce and account for 'researcher bias', which they consider undesirable. They contend that once researcher bias is controlled, researchers can more accurately produce, analyze, and represent data (Lynch 2000). Some people suggest that when researcher-reflexivity is presented in research, people are assisted in understanding how researchers came to their conclusions, what their conclusions mean, and if their conclusions are justified. For many reasons, some people suggest researcher-reflexivity increases the credibility, reliability, and validity of researchers as well as their arguments. However, some people also suggest researcher-reflexivity questions the assertion that valid knowledge can exist.

Ideas that are associated with narrative inquiry are sometimes associated with autoethnography (Trahar 2009). One might say that autoethnography is "an approach to research and writing that seeks to describe and systematically analyze (*graphy*) personal experience (*auto*)" to "examine and/or critique cultural experience [*(ethno)*]" (Ellis and Bochner 2000; Ellis, Adams and Bochner 2011:1; Jones, Adams and Ellis 2013:22).

Another might say that:

Autoethnography is an autobiographical genre of writing and research that displays multiple layers of consciousness, connecting the personal to the cultural. Back and forth autoethnographers gaze, first through an ethnographic wide-angle lens, focusing outward on social and cultural aspects of their personal experience, then, they look inward, exposing a vulnerable self that is moved by and may move through, refract, and resist cultural interpretations...As they zoom backward and forward, inward and outward, distinctions between the personal and cultural become blurred, sometimes beyond distinct recognition. Usually written in first-

person voice, autoethnographic texts appear in a variety of forms—short stories, poetry, fiction, novels, photographic essays, personal essays, journals, fragmented and layered writing, and social science prose. In these texts, concrete action, dialogue, emotion, embodiment, spirituality, and self-consciousness are featured, appearing as relational and institutional stories affected by history, social structure, and culture, which themselves are dialectically revealed through action, feeling, thought, and language. (Ellis and Bochner 2000:739)

Jones et al. (2013) suggest that autoethnography is similar to “other kinds of personal work”, but contend that the following four qualities make it distinct: “(1) purposefully commenting on/critiquing of culture and cultural practices, (2) making contributions to existing research, (3) embracing vulnerability with purpose, (4) creating a reciprocal relationship with audiences in order to compel a response” (p. 22). Related to the fourth quality, Ellis and Bochner (1996) contend that ethnographies should be written for wider audiences, not for ‘academics’ alone, in an aesthetic and purposeful manner (p. 18-23).

Accordingly, similar to narrative inquiry, there are assumptions that influence autoethnographic research approaches. People who proclaim to use, extend, or create autoethnographic research approaches may likewise employ different data production methods, different data analysis methods, and different data presentation methods, which are influenced by various theoretical and epistemological orientations. This also creates research diversity. Additional assumptions that sometimes influence autoethnographic research approaches are that ‘autoethnographers’ “can never capture experience” (Ellis 1999:673), and that autoethnographer’s values, experiences, and views affect the research process (Ellis et al. 2011), which is acceptable (Ellis 1999).

As with most research methodologies, narrative inquiry and autoethnography are not free from criticism. On narrative generally in qualitative research, Atkinson and

Delemont (2006) suggest that people must “focus on the social and cultural context in which such tales are told” and “recognize that all cultures or sub-cultures have narrative conventions” (p. 165). They contend that:

All too often...narratives are collected and celebrated in an uncritical and unanalyzed fashion. It is a common failing, for instance, to imply that informants' voices ‘speak for themselves’, or that personal, biographical materials provide privileged means of access to informants' personal experiences, or their sources of self-identity. (P. 166)

Expanding on this point, they state:

Autobiographical accounts are no more ‘authentic’ than other modes of representation: a narrative of a personal experience is not a clear route into ‘the truth’, either about the reported events, or of the teller’s private experience. It is one of the key lessons of narrative analysis that ‘experience’ is constructed through the various forms of narrative. (P. 166)

Atkinson and Delemont ultimately “counsel” that in the “social sciences” a greater emphasis on rigorous narrative analysis is needed (p. 170):

When it comes to personal narratives, spoken performances, oral testimony and autoethnographies, we should not simply collect them as if they were untrammelled, unmediated representations of social realities. While the development and spread of qualitative social science are to be welcomed, too many of its manifestations result in slack social science, born of an adherence to the evocation of ‘experience’, as opposed to the systematic analysis of social action and cultural forms. It is, we suggest, a vital corrective that narrative should be viewed as a form of social action, with its indigenous, socially shared, forms of organization. Narratives should be analyzed as a social phenomenon, not as the vehicle for personal or private experience. Equally, we counsel caution when it comes to attributing to narratives or narrative analysis an especially moral quality. While the ‘voices’ of otherwise muted groups may be charged with political significance, we cannot proceed as if they were guaranteed authenticity simply by virtue of narrators’ social positions. The testimony of the powerless and the testimony of the powerful equally deserve close analytic attention. Moral commitment is not a substitute for social-scientific analysis. (P. 170)

Atkinson (2006) proposes a similar argument elsewhere, but explicitly focuses more attention on autoethnography. Largely in support of an article in which Anderson (2006) suggests flaws in some formulations of autoethnography and proposes a newer

formulation named ‘analytic autoethnography’, a ‘subgenre’ of ‘analytic ethnography’, Atkinson (2006) states:

I believe he [(Anderson)] highlights one of the ways in which recent debates within ethnographic/qualitative methodology have been couched in oversimplistic contrasts and dichotomies: differences between past and present practices are exaggerated; epistemological distinctions are overdrawn; novelty is celebrated, even when things are not all that new. The celebration and performance of autoethnography is but one key area of work that exemplifies those tendencies. Moreover, I believe that it remains important to stress the value of *analytic* ethnography, and that the goals of analysis and theorizing are too often lost to sight in contemporary fashions for subjective and evocative ethnographic work. (P. 400)

Atkinson mostly connects the “recent debates” and “contrasts and dichotomies” to “some commentators” assertions that researcher-reflexivity is highly novel to social research methodologies (p. 400).

What Atkinson, Delemont, and Anderson seem to seriously dislike is what has been titled ‘evocative autoethnography’, ‘evocative narrative’, and ‘evocative stories’, as well as similar types of work. Bochner suggests:

Evocative stories activate subjectivity and compel emotional response. They long to be used rather than analyzed; to be told and retold rather than theorized and settled; to offer lessons for further conversation rather than undebatable conclusions; and to substitute the companionship of intimate detail for the loneliness of abstracted facts...The ‘research text’ is the story, complete (but open) in itself, largely free of academic jargon and abstracted theory. (Ellis and Bochner 2000:743)

Employing a similar definition, Anderson (2006) proposes that “analytic autoethnography” is different from “evocative autoethnography” in its commitment to using empirical data “to gain insight into some broader set of social phenomena than those provided by the data themselves” (p. 386-387). In other words, people use empirical data and ‘data-transcending’ practices to develop, refine, and extend theory (p. 386-387).

In general, autoethnography is criticized for many more reasons. For instance, Wacquant (2011) suggests autoethnography is “a bottomless well of subjectivism” (p. 88). Gingrich-Philbrook (2005) suggests autoethnographic writing often lacks artistic creativity, warns that specific definitions of art structure the approach, is suspicious of writings in defense of autoethnography for legitimacy, and considers that the idea autoethnography is distinct from autobiography by critiquing culture is false (p. 300).

Ellis et al. (2011) propose that such criticisms conform to a science and art binary. They suggest that because autoethnography is “part ethnography and part autobiography” (para. 36), people who use the approach “are often criticized [as if they] were seeking to achieve the same goals as more canonical work in traditional ethnography or in the performance arts” (para. 36). They maintain that critics who hold autoethnography to traditional ethnography standards, those who represent a science orientation, argue autoethnographic writing is “too artful and not scientific” (para. 36). Such critics, they contend, propose that autoethnographers fail to apply rigorous research methods, write with too much emotion and aesthetic, and are narcissists who produce bias work (para. 37). Conversely, Ellis et al. (2011) maintain that critics who hold autoethnography to autobiography standards, those who represent an art orientation, argue autoethnographic writing is “too scientific” and not “sufficiently artful” (para. 36). Such critics, they contend, propose that autoethnographers fail to meet aesthetic and literary standards, “[cater] to the sociological, scientific imagination and [try] to achieve legitimacy as scientists” (para 38). From this analysis, Ellis et al. (2011) argue that autoethnography disrupts the binary because it accounts for science and art (para. 39).

I am not prepared to fully engage with criticisms and rationalizations of social research methodologies. I understand, however, that rigorously analyzing data and literature about a topic that a person is passionately interested about, can lead the person to develop newer theories that alter how others view life. While providing little analysis of data can inspire something similar, sometimes explicitly stated theories are more easily made useful and meaningful in everyday life. On writing and research approaches, as influenced by Balzac, I will mention, that people should create art however they choose to but aim to express, not copy, nature (Balzac [1845] 2007:para. 19). This may mean attempting to follow, bend, break, extend, or downright dispose of existing approaches altogether. As James (1884:para. 5) suggests in “The Art of Fiction”, and in some ways social research could be interpreted as fictitious, that is, shortly, people perceive differently, and not wholly, and forget and fabricate memories, writers make choices as well, if the writing is interesting, that is great. And while interest is associated with how an interpreter interprets, it seems one way to accentuate interest is to create approaches marked by newness (para. 5). To show people something with a degree of newness that makes them see and feel differently; something that makes them take a risk.

The preceding pages demonstrate that social research is conducted in various ways, as influenced by different assumptions. This arguably makes it necessary for people to describe how they conduct research. In the succeeding pages, I therefore explain how I combined my own assumptions with some assumptions from narrative inquiry and autoethnography to help structure the research process for this thesis. My own assumptions were partly influenced from experience with others and are not necessarily my own. In addition, people have already merged narrative inquiry and

autoethnography. Trahar (2009), for example, used Ellis and Bochner's (2000) definition of autoethnography and ideas about researcher-reflexivity from narrative inquiry to merge the methodologies. Maréchal (2010) suggests autoethnography "can be associated with narrative inquiry" as well (p. 2). Regardless, I also provide a detailed description of the research process and share information on how I suppose I influenced it. I share the information for two reasons. First, it seems that providing it can lead to newer knowledge and strong interpretations of phenomenon. Second, it seems that many people accept the idea that people who conduct research influence the research process. For this reason, there is guidance to be 'reflexive' in one way or another.

The succeeding pages are framed with an abstract representation of the research process. My discussion is mainly centered on four conceptual stages: data production, data conversion, data analysis, and data presentation. This representation of the research process is simple, linearly temporal, incomprehensive, and misleading. Conceptual stages of selecting a research topic, creating a research plan, and reading literature could be added. I hint at these in my discussion. Moreover, when people engage in the research process, it seems the identified conceptual stages are not so clearly defined nor visited sequentially. Even so, representing the research process through the mentioned conceptual stages is practical for me to describe how I produced this thesis. Readers may consider my description fairly 'coherent', something many people would perceive the research process is not if it was somehow fully revealed.

## THE RESEARCH PROCESS

After finishing a training course for work in April 2012, I returned to my hotel room and received notice of my admittance to University of Victoria's MA sociology

program. It was the program I wanted to attend so I was pleased. I would soon continue my research on racial and ethnic segregation in cities. I accepted the offer in the coming days. Then I started communicating with my provisional supervisor (now my co-supervisor) who introduced me to Desmond's (2006) article "Becoming a firefighter". I never considered writing about my job until that time. I was quite unaware of the possibility. Wildland firefighting to me then was just a job I did for what seemed to be practical reasons. It offered me money, which funded my schooling and life. It could sometimes provide me with a sense of altruism. And it was sometimes fun. But in the next few years, I took writing about it seriously.

#### *Data Production*

The first time I produced interview data for this thesis was in March 2013 for a course on qualitative research methods. I conducted two telephone interviews, which University of Victoria's Human Research Ethics Board approved, with two firefighters from the same WFMB firebase in Saskatchewan. I worked closely with the two people for several years. Both were Type 1 WFMB Fire Fighters. Criteria about age, gender, race, ethnicity, class, and so forth, related to who I would interview, were not preset. I initially contacted the two firefighters by email to be interviewed. I provided them with consent forms and information about the research (Appendix E). The interviews were then scheduled through reply emails. Time was afforded between the interviews and my first contacting the firefighters so that they could ask me questions about the research if they wanted. The time also permitted opportunity to decline the scheduled conversations. Neither firefighter contacted me with questions about the research or to decline the interviews in the timeframe. For this reason, I proceeded to telephone them at the agreed

upon times. At the beginning of each interview, the firefighters and I discussed the consent form and the research. When it seemed that they understood both and were willing to participate in the research, I asked if they agreed to the components of the consent form. Upon their approval, I mentioned I would start audio-recording the conversations. I again asked the firefighters to consent to the interviews after I started audio-recordings to ensure their consent was documented. After they again consented, I asked them questions related to their job. Before I asked the firefighters questions, I mentioned many times that the general structure of the interviews would be me asking questions to which they could tell stories. I used an application on my telephone called TapeACall to audio-record the conversations. Each interview lasted approximately 90 minutes. The audio-recordings were converted to transcripts in April 2013. The computer documents of transcripts were password accessible by me. I destroyed the audio-recordings once they were converted to transcripts. I changed firebase and firefighter names in the transcripts and this thesis, intending to ensure confidentiality and anonymity.

The second time I produced interview data for this thesis was in July and August 2013. I conducted 14 face-to-face interviews, which University of Victoria's Human Research Ethics Board approved, with 12 firefighters from various WFMB firebases in Saskatchewan. Two interviews were follow up interviews because clarification was required on responses from initial interviews. I worked closely with some of the firefighters for several years. Some of the firefighters I met several days prior to the interviews. All firefighters were Type 1 WFMB Fire Fighters. Criteria about age, gender, race, ethnicity, class, and so forth, related to who I would interview, were not preset.

Those that were asked to participate in the research were people near me at different times and at different places in Saskatchewan from the end of July through August. They were mostly firefighters who worked in close proximity to me for some amount of time, and to some extent, for reasons beyond my control. I asked the firefighters in person if they wanted to participate in the research. Those that did were advised to select interview locations away from their home firebases to reduce the chance of potential repercussions in the workplace. The locations they chose varied. Many interviews took place in homes and near wildland fire camps. All interviews took place after work hours. I provided each firefighter with a consent form and information about the research when they were first asked to participate (Appendix F). Because I was occasionally required to supervise some of the firefighters at work, when I first asked if they would participate in the research, I discussed our positions, focusing on the power of my position, to ensure they understood that they were not obligated to participate in the research because of our work relationship. I also mentioned that I would not use the interview data against them. This information was provided in the consent form as well. University of Victoria's Human Research Ethics Board required me to ensure these measures.

Similar to the two telephone interviews, time was afforded between face-to-face interviews and my first contacting firefighters so that they could ask me questions about the research if they wanted. The time also permitted opportunity to decline the scheduled conversations. Some firefighters asked me questions about the thesis in the timeframe. At the beginning of each interview, the firefighters and I talked about the consent form. They were able to ask me questions about it and the research. When it seemed that they understood both and were willing to participate in the research, they were asked to sign

two consent forms. I kept a signed consent form. Each firefighter kept a signed consent form. For the two follow up interviews, the firefighters and I discussed the same consent form at the beginning of the interviews and verbal consent was obtained for their participation.

After firefighters consented to participate in face-to-face interviews, I mentioned to them that I would start audio-recording the conversations. Once the audio-recordings were started, I asked them questions related to their job. Before I asked the firefighters questions, I mentioned many times that the general structure of the interviews would be me asking questions to which they could tell stories. I also mentioned that the interview discussions should be similar to regular conversations. I used an application on my telephone called SuperNote to audio-record the conversations. All interviews lasted 60 to 150 minutes. The audio-recordings were converted to transcripts in October 2013. The computer documents of transcripts were password accessible by me. I destroyed the audio-recordings once they were converted to transcripts. I changed firebase and firefighter names in the transcripts and this thesis, intending to ensure confidentiality and anonymity.

Of the 14 firefighters interviewed, researchers might say that seven were ‘Indigenous Peoples’, six were ‘white’, one was ‘Asian’, 12 were ‘male’, and two were ‘female’.<sup>14</sup> The average age of the firefighters interviewed was 28.733 (number includes me). The average age at which the firefighters started managing wildland fire was 20.6

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<sup>14</sup> Some researchers might categorize people this way. But this was not necessarily how firefighters responded to questions of identity. For their responses to questions of identity see Appendix C.

(number includes me). When firefighters were interviewed, four were crew leaders and ten were crew members.

My interview approach remained fairly consistent during the research. I never wanted to interview firefighters to produce entire life stories. I never wanted to interview firefighters longitudinally, in temporal sequences to produce reinterpreted or continued stories of life events. I never wanted to interview firefighters together to produce group stories. The interviews were one-on-one. I wanted to produce stories of life events that might reveal self-construction processes.

Before I conducted the telephone interviews, I created a list of questions to ‘semi-structure’ the conversations. I told the firefighters that I wanted to interview them about their work, consequences of their work, the body, and risk. Before I conducted the face-to-face interviews, I slightly modified the list of questions. I told the firefighters that I wanted to interview them about their work, consequences of their work, the body, risk, and firefighter identity. Except for the telephone interviews, because I was learning, the list of questions was mostly used to loosely guide face-to-face interviews. I asked the following questions, however, to most firefighters in one way or another. Can you tell why you decided to become a wildland firefighter? Can you tell me about activities you did as a child? Can you tell me about activities you do now? Can you tell me the story about fighting your first wildfire? Can you tell me a story about fighting a more recent wildfire? Can you tell me about when work is fun and when work is not so fun?

Depending on how firefighters responded to questions, I asked newer questions on similar themes in different ways. Sometimes I thought of and retained questions about responses, then asked the questions when the timing seemed correct, namely, when I

thought I would not greatly interrupt 'interview fluidity'. In addition, sometimes I asked firefighters if they could tell stories as examples of their responses, clarify specific words of their responses, or explain segments of their responses. Interview fluidity was important to me after I learned from the telephone interviews that asking predesigned questions sequentially did not support the engaging and flowing conversations I wanted.

The questions that I asked firefighters in interviews were associated with seven main themes: firefighting experiences, participation in activities, death and close calls, family and friends, job satisfaction, consequences of firefighting, and firefighter training. After the telephone interviews, I used the themes to guide the questions I asked firefighters in face-to-face interviews much more than the list of questions I created. From the common outset of asking firefighters why they decided to undertake the job, interview conversations developed from one theme to the next, sometimes in no definitive order. Because the research was about self-construction processes, I asked some firefighters about how the way they experienced a phenomenon had changed with time. For example, I asked many firefighters if the way they experienced their first fire on the job to a more recent fire changed, and if so, how.

My interview approach relates to parts of Holstein and Gubrium's (1995) perspective of the 'active interview'. Firstly, they suggest that people in interviews collaboratively produce data by interaction (p. 1-6). In the interviews I conducted with firefighters, I asked them questions in specific ways. Sometimes I possessed more power than firefighters to lead the discussions. Sometimes firefighters possessed more power than me to lead the discussions. Aside from talk, our other bodily actions influenced the data produced as well. Ultimately, the data were produced together. Secondly, they

suggest that the “active interview is not so much dictated by a predesigned set of specific questions as it is loosely directed and constrained by the interviewer’s topical agenda, objectives, and queries” (p. 19-29). As mentioned, my interview approach in face-to-face interviews was loosely directed and constrained, for the most part, by certain themes and my research topic and interest. My research topic and interest loosely directed and constrained the telephone interviews, but the questions I asked the two firefighters were more predesigned and specific. Thirdly, they suggest that “active interviewing takes advantage of the growing stockpile of background knowledge that the interviewer collects in prior interviews to pose concrete questions and explore facets of respondents’ circumstances that would not otherwise be probed” (p. 38-52). As I soon illustrate, I wrote notes after interviews that influenced succeeding interviews. Fourthly, they suggest that the “active interviewer may interject him- or herself into the interview in various ways” (p. 73-80). I occasionally interjected myself and was interjected into interviews. Sometimes I asked firefighters questions about events we experienced. I asked more than one firefighter, for example, questions about what it was like to work at a fire where a firefighter had died a few days before we arrived. Because I worked closely with several firefighters, I was also in some of their stories. Additionally, after firefighters told stories, I sometimes told stories of similar experiences. This did not occur regularly.

Many people argue that to understand and represent a group one must be part of the group. Firefighters seemed to perceive me as being part of their group in the interviews. This possibly changed the way that they spoke to me. A few firefighters, for example, asked me if they were responding to my questions correctly because they wanted to help me. I responded to these situations by informing them that there were no

correct or incorrect responses and that any story they told me mattered. In addition, it seemed firefighters often told stories with the assumption that we shared a similar language. This was perhaps made most visible when they commonly said phrases such as, 'you know'. This possibly limited what they told me. Though sometimes I asked for clarification.

The preceding discussions allude to my assumptions about interviews. First, all people associated with interviews influence the data produced in them. The words that people use in interviews influence the words that other people use in interviews. To many extents, people may intentionally withhold information, lie, or fabricate stories in interviews. A person's general perception of another in an interview may influence what is said. Depending on the arrangement, a mentor's theoretical beliefs may influence the questions that a mentee asks in interviews. These are only a few examples of the assumption. Second, people communicate some information in interviews about their past and present experiences, and sometimes about their projected future experiences, from their present positions. Past experiences are not disconnected from present positions or projections of the future. Bodily state and environment are pertinent to present positions. Recollections about past experiences are never wholly accurate and change. However, some amount of experiential substance remains in memories and communicated stories.

Aside from interview data, I also produced data for this thesis by writing it. I am in the words that I wrote, the sentences, and the paragraphs. Perhaps most noticeably, I am in the stories that appear at the beginning of many chapters. I wrote the stories mostly from memory, which involved, in the context of writing, the points I made when I described my second assumption about interviews. Each story was primarily written in

one sitting. Each story was revised in many more sittings. Some stories were mainly produced before I conducted interviews with firefighters. Some stories were mainly produced after I conducted interviews with firefighters. I also used photos and archived fire data and weather data to assist in expressing scene in some stories. For example, information about plant species, helicopter models, tree sizes, weather indices, and the look of the sky was drawn from these sources. Several people who write about autoethnographic methods approve of people using photos to assist in expressing their experiences (see: Ellis 1999; Jones et al. 2013:17-41). But readers should not be confused. Even if I used photos and archived fire data and weather data alone to write stories, the stories would not provide fully accurate accounts of what actually happened. Words, technology, human limitations, culture, and constant change only permit so much.

How I wrote the stories is similar to Ellis' description of writing by a process of emotional recall:

I use a process of emotional recall in which I imagine being back in the scene emotionally and physically. If you can revisit the scene emotionally, then you remember other details. The advantage of writing close to that time of the event is that it doesn't take much effort to access lived emotions—they're often there whether you want them to be or not. The disadvantage is that being so involved in the scene emotionally means that it's difficult to get outside of it to analyze from a cultural perspective. Yet both of these processes, moving in and moving out, are necessary to produce an effective autoethnography. That's why it's good to write about an event when your feelings are still intense, and then to go back to it when you're emotionally distant. (Ellis and Bochner 2000: 752)

When I wrote the stories, I imagined being back in the scenes. I tried to convey the emotional, sensory, and cognitive experiences I imagined happened.

Another way I produced data for this thesis was by writing notes. During the research process I occasionally wrote notes about ontology, phrases firefighters used, activities I did after work, firefighter training courses, experiences fighting fires,

organizational approaches for managing wildfire, events that generally instigated thoughts and emotions among firefighters, firefighters who died on the job, work assignments, and writing this thesis. The notes influenced the questions I asked firefighters in face-to-face interviews and helped provide detail to chapters.

I also wrote notes about interviews with firefighters and our discussions shortly after interviews. Firefighters consented to me writing the notes. Some were about interviewing firefighters who possessed little knowledge about their job and little experience doing their job. Within these terms, some were about firefighters who possessed much knowledge and much experience. Other notes were about firefighter behavior in interviews. I wrote about how firefighters used their bodies and objects to tell stories. Many firefighters were well aware of the land near them during interviews and in telling stories of fires they pointed in the cardinal directions of where the fires once were. One firefighter pretended to spray water from a hose while telling a story. One pretended to duck from a helicopter rotor. Many showed me the remains of old injuries on their bodies. And some used articles of the forest near them to demonstrate stories. In addition, firefighters occasionally used their bodies in ways that seemed congruent with their conveyed emotions. I wrote notes about this as well. When firefighters spoke about wildfire they generally seemed happy and excited. Upon asking firefighters what it felt like to see fire, many were immediately in awe, and some stared into space, silently. When firefighters told stories about their discrepancies with coworkers, several spoke louder, moved their hands more, and seemed annoyed, sometimes angry. When many firefighters spoke of death or near misses, they did so slowly. They sometimes appeared uneasy and distressed. They sometimes did not. It seemed that the particular context of

these conversations was what mattered. I noted that for me it felt as if time stood still listening to some stories about death. Thus I wrote notes about my own bodily states as well. Some notes were about being tired after long days of work and consequently forgetting questions I tried to remember to ask. I also wrote notes about how to best order interviews by theme; interview fluidity and improving response length; features of interview environments such as temperature, cloud types, precipitation, winds, drift smoke, sunsets, and birds; firefighters comments on interviews; who I admired, why, and how it influenced interviews; patterns in stories; how my questions seemed to make some firefighters contemplate newer ideas; interviewing people I was familiar with; firefighters trying to conceal their counterpart's identities in stories; and, how several firefighters spoke in uncharacteristic ways. These notes also influenced the questions I asked firefighters in face-to-face interviews and helped provide detail to chapters.

### *Data Analysis*

Except for the notes I produced, I analyzed the interview transcripts and my own stories using Doucet and Mauthner's Listening Guide approach (Mauthner and Doucet 2003; Doucet and Mauthner 2008). Reissman (2001) classifies three common ways that narratives are defined for analysis. First, "typical of social history and anthropology, the narrative is considered to be the entire life story, an amalgam of autobiographical materials" (p. 4). Second,

the concept of personal narrative is quite restrictive, used to refer to brief, topically specific stories organized around characters, setting, and plot. These are discrete stories told in response to single questions; they recapitulate events the narrator witnessed or experienced (P. 5)

Third, "personal narrative is considered to encompass large sections of talk and interview exchanges, extended accounts of lives that develop over the course of interviews" (p. 5).

The stories in this thesis most closely resemble the second classification. I read them for analysis in four successive ways as influenced by Doucet and Mauthner. The purpose of the readings was to interpret how individual firefighters constructed a sense of self through their interview stories and how their stories indicated something about a general trajectory of being and becoming a wildland firefighter. The reading involved the Simmel-Goffman theoretical framework.

In my first reading, I attempted to examine what was happening in the transcripts, attending to how the stories in them were composed (Doucet and Mauthner 2008: 405). I focused my attention on who was in the stories, how plotlines of stories were organized, what main themes framed each story, and what general patterns of behavior were visible from story to story. To interpret a general trajectory of being and becoming a firefighter, I also focused my attention on where wildland firefighter's stories were situated in relation to their own timeframes as wildland firefighters. I also focused my attention on aspects of their present positions at interviews, such as, their work positions and ideas of their past experiences, and how these impacted how they spoke about the job. I wrote my ideas and feelings in the margins of each transcript as I read. I did this for each reading. Doucet and Mauthner (2008) suggest:

This allows the reader to examine how and where some of her own assumptions and views – whether personal, political or theoretical – might affect her interpretation of the respondent's words, or how she later writes about the person. This process can occur at varied stages and, where applicable, between different members of the research team. However, we cannot know everything that influences our knowledge construction processes, and there are 'degrees of reflexivity', with some influences being easier to identify and articulate during the research, while others may only come to us many years after completing our projects (Mauthner and Doucet 2003:425). (P.405)

I created index documents for each transcript after I completed my first reading. Each document included a table. In one column, I identified transcript page numbers. In another column, I wrote short descriptions of the questions and answers in the transcripts, as well as my ideas about them. The descriptions and my ideas were aligned with the transcript page numbers. After I finished subsequent readings, I updated the documents to include my additional notes I wrote on the transcripts. I used the documents to reference sections of transcripts when needed.

In my second reading, although this was partly associated with my first reading, I attempted to examine how wildland firefighters spoke about themselves and their social worlds (p. 405). Before the reading, I circled every ‘I’ in the transcripts to intensify their affects. I focused my attention on how wildland firefighters situated themselves in their stories and the general patterns that were visible from story to story, transcript to transcript, within these terms.

In my third reading, although this was partly associated with my first and second readings, I attempted to examine how “social networks, and close and intimate relations” influenced wildland firefighters (p. 406). I focused my attention on their individual relationships with other people and the general patterns that were visible from story to story, transcript to transcript, within these terms.

In my fourth reading, although this was partly associated with my first reading, I attempted to interpret “structured power relations and dominant ideologies” framing wildland firefighters stories. I focused my attention on how certain ideas generally influenced their stories.

After the readings I created five documents that were individually about one of the following themes: trust, leadership, death, place, and the body. Although each story in transcripts included elements of these themes, for the most part, one of the five themes mainly framed them. I chose which theme best represented each story and transferred them from the transcripts to their respective documents for the writing process. I tried to transfer stories in their entirety. Reissman (2001) suggests that the “discernment of a narrative segment for analysis, the representations and boundaries chosen, is strongly influenced by the investigator’s evolving understandings, disciplinary preferences, and research questions” (p. 10). My final decisions about how plotlines were organized, what firefighters were conveying, what themes framed stories, what patterns of behavior were in stories, what stories would be transferred to certain documents, how stories were distinguished, and so forth were interpretive acts.

Several theoretical assumptions influenced how I analyzed the transcripts. First, as suggested, I consider that the stories people tell in interviews are in some way connected to their experiences. For this reason, with the identification of general patterns of behavior in stories from many people, I consider that proposing a general trajectory of becoming is viable. Those who observe people can make similar suggestions as well. But my consideration is not free from limitations. To me, as partly influenced by Simmel, it seems people realize some amount of newer life in the present. What people realize in any one moment includes many entities of life, which, despite a person’s awareness, can appear to generally change in time and space at different rates. For example, the size and shape of a mountain can appear to generally change slower than the size and shape of a tree, and a collectively similar attitude about something can appear to take longer to

change than another. These are admittedly matters of perspective. But because entities of life can be identified and compared, and because people express something of their experience through storytelling, it seems that proposing a general trajectory of becoming is viable. Of course, the proposed trajectory will never be completely accurate. Recall my comments when I discussed writing my own stories. Second, as partly influenced by Simmel, I consider that there are fundamental principals of life. Regarding several ‘oppositions’, it appears that both sides, perhaps more, are always influential in situations to various degrees. For example, something can be known but elements are always unknown. Interpretations are accurate but inaccurate. Each person is different but similar. Each person is active but passive. Each person is socially but biologically influenced. Each person has agency but is structured. Examining these from different angles can provide layered accounts. On agency and structure, although a person may have little power to live and work away from the town where they grew up, at the same time, the same person may have vast power in the town to intentionally guide their life and the lives of others. These are admittedly matters of perspective. Third, I consider that ‘emotion’, ‘cognition’, and ‘senses’ function simultaneously, but each person’s ability regarding these bodily features is limited. Fourth, as partly influenced by Goffman, I consider that reputation is a feature of interaction that is associated with self-construction processes.

There are notable experiences that influenced my analysis of transcripts as well, although I am not exactly sure how the experiences influenced my analysis. As a firefighter, I lived through situations in which I almost died as well as situations in which I was almost injured to an extent that would have made me unable to write this thesis. In

addition, nowadays, I consider that crew members are in positions with responsibility, however, not the responsibility associated with crew leader positions. A drastic change from one position to the next is the amount of pressure crew leaders generally feel that it is their duty to ensure the safety of the crew. The pressure tends to increase. Crew leaders generally feel much pressure that they are accountable for the outcomes of crew decisions. As a trainer of firefighters, I felt much pressure that it was my duty to ensure firefighters were on a 'good path'. Lastly, I consider that what I have read and how I have lived life influenced how I analyzed transcripts. For example, my co-supervisor introduced me to the Listening Guide. Additionally, I suspect how I view life, in relation to entities, change, patterns, and so forth, was partly influenced from experiencing many wildfires and systems for predicting wildfire.

#### *Data Presentation*

The data I produced for this thesis is presented in a specific way. My own stories are positioned at the start of some chapters in accordance with each chapter's main theme. My analysis of the stories is provided in discussions at the end of the chapters that are composed of interview data. Connections are also made in the final discussion of the thesis. Most chapters are primarily on single themes. Chapters that include interview data are arranged mainly in sequence with the general trajectory of being and becoming a wildland firefighter. Combined into the presentation are my interpretations of how firefighters constructed a sense of self through telling stories in interviews.





## Chapter 6: The Crossroads

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The main argument I develop and defend in this thesis is that in the process of being and becoming a wildland firefighter risk is sometimes increased, decreased, revealed, concealed, and anticipatorily transformed through trust. One purpose for this chapter is to begin developing the argument with interview data I produced and the risk taking and wildland firefighting literatures. The interview data I show in this chapter is primarily about the backgrounds and identities of eight wildland firefighters, as well as what seemingly influenced them to undertake wildland firefighting. Another purpose for this chapter is to engage with the risk taking and wildland firefighting literatures to show how data in this thesis supports, refutes, and extends suggestions proposed in past studies. The data in this chapter empirically contribute to the risk taking and wildland firefighting literatures on the backgrounds and identities of wildland firefighters and why people are influenced to undertake dangerous occupations.

### REAGAN

I met Reagan for the first time when we were sent to a firebase to help manage a forest fire in eastern Saskatchewan. It was the first time I had worked at the firebase. The 2013 Saskatchewan fire season was ending and lightning struck one of the few areas of the provincial forest that was dry enough to burn somewhat intensely. Many fires soon ignited in the forest. A request for additional workers to help manage the fires was submitted and granted.

In addition to Reagan, I met two wildland firefighters who were on our crew when I arrived at the firebase. One I had met before. One I had not. We all spent the first night at the firebase and in the morning we flew in a helicopter to a fire. This was my first

flight since I heard about a helicopter recently working for the firebase malfunctioning with wildland firefighters on board. A tail rotor part broke, sending one of its blades into the side of the tail boom. The helicopter auto-rotated to a shoreline. I heard that the wildland firefighters thought they were going to die. For a short time when we were flying to the fire, I thought about the helicopter we were in malfunctioning. But I suppressed these thoughts in thinking about how I had not yet been involved in a helicopter accident since I started managing wildland fire. I also thought about the engineers that worked on helicopters, and how they were expected to comply with regulations about replacing parts.

More in my later years of managing wildland fire, although I always knew dying at work was possible, I sometimes used the extent of my past experience to suppress ideas that could hinder my performance. The thought of dying on the job was not something I obsessed about as a wildland firefighter. I most often thought about it when I heard about the deaths of wildland firefighters, their close calls, or my own. Sometimes I thought about it when I was seasonally unemployed. Perhaps most seriously before I returned to work each year.

We spent the next five nights camping in tents near the fire. One night, after we were lulled to sleep by the soft precipitation of thundershowers pattering on the tent-tops above us, we awoke to a thunderous scream. K-K-KA-BOOOM! My body rumbled. My eyes open. I saw a flash of light that stained my vision. My heart raced. A thunderous scream yelled from another's lungs, AHHHHHH! We almost got struck by lightning.

The first day on the fireline we walked the division we were assigned to work. We wanted to see what we were dealing with. Because the fire was not very active we took

breaks to tell stories. At one point, when we stopped at a scorched spruce stand, I was asked what I did after fire season. In mentioning my schooling I asked Reagan about being interviewed for this thesis. I was told, 'I'll think about it.'

Then I did not see Reagan as much as the two others on our crew. By the second day Reagan agreed to boat workers and equipment to the fireline from camp and back again for the week. I was on the fireline. On the last night in camp though, I again asked Reagan about being interviewed. As it turned out, we sat on a fallen aspen and talked for more than an hour that night. When the showers started we relocated under a blue tarp and sat on wooden seats that a wildland firefighter had made using logs and a chainsaw. We talked for nearly another hour amidst the crackle and crimson glare of a small campfire. Reagan told me about surfing in Tofino, mountain biking from Saskatoon to Canmore, and fishing and canoeing lakes and rivers in northern Canada. I learned that Reagan was an emergency firefighter on a contract crew in British Columbia for two years, then a firefighter in Yukon for one year, then a Type 1 Fire Fighter in Saskatchewan for seven years. Reagan first undertook wildland firefighting at the age of 24.

It was 2003. There were all those fires around Kelowna that were making the news. I was living with my brother at the time and the place I was working, I wasn't really enjoying it. So one day after work he said—he was reading a paper, because they had Kelowna on the front page, houses burning and all that shit—he's like, 'Fuck that'd be cool to go out there and fight fire.' And I was like, 'Oh yeah, whatever.' I didn't really think about it. Then the next day it was all I could think about at work. So I started making some phone calls to find out what it took to get on. Then I took an S-100 course [(Basic Fire Suppression and Safety Certification)] they were offering that weekend in Nelson. So yeah, I didn't go to work the next day; hopped on a bus, and the next morning I was in Nelson taking that course.

Reagan lived in Canmore before hopping on the bus. No one in Reagan's family fought fire, and taking the S-100 course was required to start emergency firefighting in British Columbia. Reagan talked about finishing the S-100 course and trying to get on an emergency firefighting crew.

After I took that course, they told me that if I showed up the next morning at five, I'd probably get picked up and put on a crew. When I first bused over I just slept on a beach. So I just went back to the beach and slept and got there at five in the morning and then got picked up by a crew. They were timing out and just looking for hot spots and we found like one that day kind of thing and then they were done. So I figured, 'Oh fuck it,' I'd just go move on to a more active place kind of thing. So I left after that day and just hitchhiked around. I heard there was a good one [(an active fire)] going around Cranbrook so I went out there but never got on. Then I went to Creston, hitchhiked out there, and walked into a fire camp and asked around if anybody was looking for guys and then there was a crew that was. I just basically walked in and everybody was having supper and I asked around then they sent me to these guys—so somebody pointed me in their direction—and I went and talked to them and they're like, 'Yeah.' They asked me what I had and I had my steel toes and that's about it. So they gave me Nomex and whatever and gave me a spot to sleep and I was out on the line the next morning.

### *Linking Stories to Literature*

Much can be interpreted from Reagan's story and my story. The data first indicate that wildland firefighters sometimes work with little knowledge of the people who are involved in managing fires with them. There is a general expectation that, if needed, many workers from many places will come together and implement a wildland fire management perspective to achieve a shared goal. This situation can influence people to trust one another and work together. As I show later, however, trusting one another and working together is sometimes hindered. The data also suggest that wildland firefighters occasionally manage fires in places they have very little knowledge about, and that they eventually begin to focus attention on the potential dryness and wetness and fire behavior of certain vegetative landscapes. For wildland firefighters in Canada, this involves them

using the Canadian Forest Fire Danger Rating System (CFFDRS) to some extent, the fifth of five successive fire danger rating systems for the country (Van Wagner 1987), which can be used to predict fire behavior partly by the estimated dryness and wetness of vegetative landscapes. The data relatedly indicate that wildland firefighters can come to acquire and use local knowledge, perspective knowledge, language knowledge, and facility knowledge. For example, I used basic language knowledge and facility knowledge in describing helicopters. Local knowledge was acquired when the wildland firefighters and I walked the fireline to plan and implement a perspective of managing wildland fire. In addition, the data indicate that Reagan enjoyed participating in sports and being outdoors. Surfing has been studied as a risk taking activity (Stranger 1999). I show through the chapter that many people in this thesis enjoyed participating in sports and being outdoors growing up. I suggest that their sporting and outdoor experiences can assist them in being and becoming wildland firefighters and can influence people to undertake wildland firefighting.

The first passage from Reagan suggests that the media, family members, and working an unfulfilling job, greatly influenced Reagan to undertake wildland firefighting. Through the first passage, Reagan constructs a sense of self that suggests the allure of wildland firefighting was an influence in undertaking the job. This supports Lyng's (2005) notion that people are partly drawn to dangerous occupations by the "intensely seductive character of the experience itself" (p. 5). Given Reagan's lack of knowledge about how to become a wildland firefighter and how to manage wildland fire, the first passage also indicates that the experience of undertaking wildland firefighting was somewhat adventurous for Reagan (Simmel [1911/1919] 1959). By completing the S-100

course, Reagan very likely would have acquired some extent of local knowledge, perspective knowledge, language knowledge, and facility knowledge. Similar to many wildland fire management courses, the S-100 course includes a theoretical component and a practical component. The full title of the S-100 course indicates that Reagan would have been exposed to a current perspective of managing wildland fire, and an approved perspective about danger and risk associated with being and becoming a wildland firefighter. Reagan would have been exposed to knowledge about how to control the identified risk and danger; in other words, how to be safe, or how to avoid risk. This relates to Desmond's (2007) suggestion of the USFS endorsing practices to mitigate wildland fire management danger and risk, which were trained to wildland firefighters. I return to these ideas in the next chapter.

The second passage from Reagan suggests that for a short amount of time after first undertaking wildland firefighting, perhaps to continue working and to evade the boredom of patrolling all day to find one hotspot, Reagan, in a sense, searched for more action (Goffman 1967b). The passage suggests that the moments of being hired to work with an emergency fire crew, are moments when each fire crew and Reagan agreed to trust one another with little knowledge about one another. There are often moments when wildland fire management community members, by situational circumstances, quickly trust one another. I show in the next chapter how relations of trust begin to change variously from their initiation.

Reagan's journey from Alberta to British Columbia to manage wildland fire is quite different from most others' journeys in this thesis. While Reagan and I travelled far

for work, most people I talked to grew up and lived in Saskatchewan. Take Mason, for example.

MASON

I met Mason when I started working as a wildland firefighter and wandered to the little town next to the firebase. The town was fairly isolated. The closest grocery store was about 100 kilometers away. For most of the years I managed wildland fire, Mason lived in the town, one minute by foot from the firebase. For this reason, we saw one another almost daily for five fire seasons. Mason talked about growing up in the little town and wanting to undertake wildland firefighting.

The fires that we had here in '77 [(Mason was 5 years old)] we had some huge fires over in that area [(points to the direction)]. I'd see the helicopters and the firefighters riding in them. That was it. I thought that was exciting and kind of thought, 'When I get old enough, I want to be in that helicopter and ridding around.' I'd do anything just to ride in the helicopter.

My father worked for the Department of Northern Resources, DNR, back in the day. He used to work here actually and I'd listen to his fire stories at campfires. He was a conservation officer too. He did all of that. I learned and heard a lot of stories and I liked it. My two brothers were firefighting then and they started to get money and could do other things, so I eventually got on. Well, my cousin got on so I chased him. When I first started, I wanted to make money. It was all about the money. Just after grade nine I started doing firefighting in the summertime. I think I was fifteen when I got to firefight. I actually snuck in there with, oh, well, I was helping my dad first, then he was going to send me home, then my cousin picked me up: 'Come [Mason], come and help with the water trucks.' So I helped. And I ended up getting paid for one week's worth of work. Then I had to go back to school. School was on at the time and I skipped to make some money. I didn't sleep at my parent's house and I wasn't supposed to be missing school really so it was more of a slap on the wrist type of thing.

As a child, Mason smelled the smoke of wildland fires and saw helicopters and firefighters each year. Mason mostly lived in the little town next to the firebase, but sometimes in neighboring towns. Time was occasionally spent picking wild berries near

the little town, swimming in lakes and rivers, and hunting and fishing with family members. Many people in the town, who were old enough, became wildland firefighters.

Depending on the year, the most accessible jobs for people living in the town were wildland firefighting, logging, sawmilling, and commercial fishing. Few people worked at a school, post office, and general store. Some people worked selling drugs and alcohol. Occasionally there were tree planting and mushroom picking jobs close to the town. In addition, some people worked on local councils. Few people worked as conservation officers. And sometimes people were hired at the firebase to cook, clean, and do laundry. Because the employment opportunities were limited in the town, some people left for much time each year to work in mines.

The general employment situation has not changed much. Nowadays the sawmill is closed, conservation officers are stationed elsewhere, a Type 2 Fire Fighter program exists, and people are not permitted to commercial fish the nearby lakes. For these reasons, many people from the town fight fire.

Most people from the town have family there and are familiar and comfortable with the general location. These were reasons some people stayed and returned to fight fire. Some people from the town were in and out of wildland firefighting for various reasons. Sometimes they were let go from different jobs, were temporarily in legal trouble, or were selected to fight fire one year but not another.

Thus wildland firefighting was a significant part of the little towns identity. Many people were very proud to identify themselves with the firebase and the little town when they were sent to different places to manage fire. They worked diligently and influenced their counterparts to be well reputed as firefighting crews.

I met some parents, however, who did not want their children to become wildland firefighters. They wanted their children to leave the town, complete high school and post-secondary studies, and then work in different jobs. Some people from the town returned to fight fire after not finishing high school. In speaking with people about this, it seemed that some adolescents from the town had trouble transitioning to high school life. The town, comparable to many in northern Saskatchewan, did not have a high school. Adolescents moved to more populated places for high school. Some felt pressure from their parents about leaving their 'home' and 'family' for school. Moreover, some parents had preferences about where they wanted their children to go to school. I knew parents who did not want the children to go to 'high schools for white kids'. Nonetheless, after they moved for high school, the adolescents often resided with friends or with different family members. Once they were at school, though, because they had grown up very close to every person in the little town, possessed much knowledge of them, and were generally comfortable with them, some had trouble making friends and attending class when they had to, for example, ask teachers for extensions for late assignments. They were scared to ask their 'new' and 'unknown' teachers for extensions. They were scared the situations would somehow be embarrassing. Some adolescents also discovered that they were in an environment with 'new' people who were able to afford things that they were not able to afford. Being 'cool', or trying to be 'cool', was sometimes difficult. So was trying to find and talk to potential partners. These are only a few examples of a schooling situation that can deter people from schooling. Some people moved back to the little town and managed wildland fire instead.<sup>15</sup>

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<sup>15</sup> Much of this discussion was gleaned from conversations with ES and me seeing

One's level of education, especially in terms of one's reading ability, writing ability, and cognitive capacity, was typically involved in whether people were promoted at WFMB, to what degree, and at what pace. Some people never wanted to promote. Some people did. I met people that wanted to promote from Type 1 Crew Member positions to Type 1 Crew Leader positions who had never written resumes or cover letters and who needed help studying for interviews. After I helped them, some applied, some were promoted, and some did not apply.

### *Linking Stories to Literature*

The first passage from Mason indicates the influence that growing up next to a firebase can have on a person. The data suggest that from the experience Mason acquired local knowledge about where and when wildland fires occurred. In using the pronoun 'we' in the passage, Mason constructs a sense of self and identity that is connected to the little town and the people from the little town. In addition, the data indicate that Mason was exposed to facility knowledge ('helicopters') and perspective knowledge ('firefighters'). In the passage, Mason suggests that seeing helicopters and firefighters as a child was exciting. This relates to Desmond's (2007) proposition of wildland firefighters being infatuated with fire early in life. As with Reagan's story, it relates to Lyng's (2005a) proposition that people partly undertake dangerous occupations because of the seductive character of the experience. The passage additionally shows how features

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adolescents from the little town leave for high school, and asking them questions about their high school journeys. I also met and talked to many people who managed wildland fire who were sent to residential schools growing up. It seems that this influenced them in some way to manage wildland fire.

of certain places can vastly impact people's thoughts of what they want to eventually be and become.

The second passage greatly indicates that family members influenced Mason's trajectory of being and becoming a wildland firefighter as well. In growing up, listening to fire stories likely exposed Mason to local knowledge, perspective knowledge, language knowledge, and facility knowledge. This relates to Desmond's (2007) argument about the 'country habitus' and similar styles of life being passed down from one family generation to the next. However, listening to the stories presumably gave Mason more abstract knowledge rather than practical knowledge. Participating in activities such as hunting probably gave Mason both abstract knowledge and practical knowledge, particularly of local knowledge, that could assist in being and becoming a wildland firefighter. Both listening to fire stories and hunting relate to Desmond's (2007) argument that wildland firefighters can possess 'country competence'. Moreover, the data indicate that people's reasons for wanting to manage wildland fire can change with time and age. In the first passage, about being a child, Mason wanted to manage wildland fire to fly in helicopters. In the second passage, about being a teenager, Mason wanted to manage wildland fire for the money.

The data suggest that living in specific locations can greatly influence people to undertake wildland firefighting. Relatedly, the data indicate that social, cultural, political, and economic contexts influence people to undertake wildland firefighting (Desmond 2007). For example, the social relationships between people in the little town and the town's cultural contexts are considerably about managing wildland fire. Politically, in perhaps a more direct sense, the Government of Saskatchewan has located a firebase in

the little town, which, with restrictions, offers Type 1 Fire Fighter work opportunities. The Government of Saskatchewan has been involved in the creation and implementation of a Type 2 Fire Fighter program in the little town as well. The Type 2 Fire Fighter program includes politicking among people when wildland firefighters are selected. The Government of Saskatchewan also hires Type 3 Fire Fighters at the firebase as needed. This involves politicking in selecting who is hired. Economically, as suggested, work opportunities in the little town are limited. Data in the next section of the chapter suggest that this influenced Adrian's experience of being and becoming a wildland firefighter.

#### ADRIAN

Adrian started working at the firebase in the little town about two months after I undertook firefighting. In our interview, Adrian told me about becoming a wildland firefighter.

I got into wildfire fighting because my neighbor, well [firefighter's name], you know, he was doing it and I was looking to get into structural firefighting and it seemed like a good stepping-stone and a job that I could do for the summers. So I applied and got the job... After I found the application and filled it out, I was pretty much in contact with [the firebase boss] the whole time. [Firefighter's name] just gave me [the firebase boss'] number and told me to call. I said that I filled out an application and I applied to your base. Then [the firebase boss] called me back when all the paperwork stuff went through and gave me a little phone interview and that was about it and told me to show up for work. It was definitely helpful knowing someone in the business before applying.

Adrian undertook wildland firefighting at the age of 21. Growing up, Adrian was a national wrestling champion in high school, snowboarded, wakeboarded, wrestled, and spent much time 'outdoors'.

I grew up in the city, but I spent a lot of time at my grandparent's farm and at the cabin. I spent a lot of time outdoors and playing in the woods and the bush and out in nature. That was kind of a big draw to the job. It was probably spending time outdoors and camping and canoeing in elementary school and stuff—the

canoe club—and hunting with my dad, and just being outside. That’s probably a large part of why I enjoy firefighting so much.

[Being outside is] just liberating. It gets you away from the hustle and bustle of the city and the cars and the noise and it's just very relaxing and soothing I guess to be out in nature and view the world as just, its raw form, not mitigated by mankind yet. I find it just super calming and enjoyable.

In discussing why some wildland firefighters at the firebase got fed up with the job, Adrian suggested that ‘the outdoors’ was integral to each wildland firefighter’s identity and sense of self. In addition to proposing that some wildland firefighters got fed up with the job because they did not get along with management well, disliked it when workers at the firebase were not getting along, and considered that they were taxed too much for working overtime, Adrian suggested:

Then they have young guys like us coming in and doing jobs that the guys think should be for town folk and not city boys like us. So, it sometimes, the guys don't like that, I think.

*What do you mean by city boys?*

I grew up in the city—like I mentioned before—but I have a lot of outdoor experience. But that's not what comes off when the guys from the north see us come in; white guys from the city roll in and take a job that could be for someone from town. To them, I'm from [city name]. That's way south. That’s farm boy city—city life to them. That's not life out in the bush. Life north of [city name] style. So they view it as, I'm inexperienced in anything to do with the outdoors, and all of this and all of that. You kind of get looked down on for being a city boy in the firefighting industry. At least at our base I felt that way for quite a few years.

*How did that change, if it did?*

It did to an extent, but I still got looked down on a little bit. But at the same time when they realized that I was smart and that I knew what I was talking about and could hold my own in the bush, that I did have knowledge about being outdoors, I gained a little bit of respect—when they realized that I wasn't just a city yuppie that didn't know anything about the woods.

### *Linking Stories to Literature*

The passages suggest that interpersonal connections helped Adrian undertake wildland firefighting. This was the case for many wildland firefighters in this thesis, me included. It relates to Desmond's suggestion that most of the 14 wildland firefighters in *On The Fireline* had interpersonal connections to the USFS before they were hired. The data suggest that Adrian undertook wildland firefighting because it personally seemed that the job would be helpful in later undertaking structural firefighting. The data additionally indicate that spending time outdoors growing up probably influenced Adrian to undertake the job. The final passages from Adrian suggest that the wildland firefighters from the little town disliked it when people who were not from the little town were hired as wildland firefighters.

When I first started wildland firefighting at the firebase, some of the wildland firefighters and people from the little town thought that I was stealing their jobs. They seemed to identify me as 'the job-stealing, white boy from Ontario'. In a way, I was conceived of as 'an outsider' to some extent. These thoughts seemed to mostly lose importance with time. I gained some amount and type of respect from wildland firefighters and many people in the little town. I became known. I was occasionally even protected against people from the little town and neighboring towns. I think the respect I gained was only partly about being a wildland firefighter.

In the data, Adrian indicates that some wildland firefighters at the firebase, who were from the little town, considered us 'city boys'. The data suggests that Adrian was also sometimes considered a 'farm boy'. Adrian indicates that some wildland firefighters defined 'city boys' as people who did not know anything about the woods and the bush.

Adrian seemed to self-identify in the data as a ‘city boy’, but not wholly with the definition of a ‘city boy’ who did not know anything about the woods and the bush. In the data, Adrian indicates that wildland firefighters from the little town connected their practical knowledge of the woods and the bush to the concept of ‘the outdoors’. Adrian suggests that the wildland firefighters thought their practical knowledge was gained by experience in the general location they lived and worked. It seems that they used their place-based, practical knowledge as the foundation of their definitions and categorizations of people. For example, based on the visual appearance of a person, some wildland firefighters perhaps attributed the person a gendered status and a racialized status. Based on the place a person lived, some wildland firefighters perhaps attributed the person a place-based status. If the place was not within the woods and the bush, they considered that the person had no practical knowledge of the woods and the bush, or in other words, of the ‘outdoors’. Taken together, Adrian seems to have been initially defined and categorized by some wildland firefighters as the white, city boy who did not know anything about the woods and the bush.

The data suggests that these terms may make people feel as though they were ‘outsiders’. However, as shown by interview data from Adrian, the tenets of such generalized, stereotypical definitions and categories can be practically questioned by people from various residential locations who possess practical knowledge of the woods and the bush, relatable knowledge, or who are capable of learning and changing. Some people can possess similar practical knowledge or different but highly useful practical knowledge for wildland firefighting despite where they primarily grew up. I use data to suggest this in the chapter. Some people can learn and change quickly as well. I saw this

in training hundreds of wildland firefighters. What is also involved, in addition to one's capacity and experience, is one's passion to do the job. Nonetheless, the data suggest that Adrian challenged the white, city boy definition by expressing practical knowledge and a capacity to live and work in the woods and the bush.

At WFMB, I noticed that some workers categorized people with terms such as 'city boy', 'farm boy', 'country boy', 'cowboy', 'city girl', 'farm girl', 'country girl', and 'cowgirl'. The use of the terms appeared to change in amount from firebase to firebase, and from person to person. Adrian suggests that the term 'city boy' was significant within the firefighting industry, which may be greatly correct. However, although there were some people who used the term and similar terms at WFMB, I also met people who did not take their use very seriously. Some people were exposed to the terms; greatly understood the context, use, and limits of the terms; and, refrained from using them. Regardless, Adrian's story suggests that I was perceived as and titled a 'city boy' by some wildland firefighters at the firebase. Although this is possible, I do not recall ever being called a 'city boy'. When I first started wildland firefighting, some workers, with minimal knowledge of my background, asked me intently where I grew up. My usual answer was: a small town in agricultural-type land northeast of Toronto—about a one-hour drive. As this data and Adrian's story suggest, notions about places, especially about what the places are thought to give people, were very important in some wildland firefighters analyses of newer wildland firefighters. This relates to the literature I showed in Chapter 3, which demonstrated that local knowledge has been historically valued in the wildland fire management community. It also relates to the literature in Chapter 3 about how people who can quickly acquire local knowledge have been historically valued in the

wildland fire management community, as well as people with relatable, practical local knowledge. Categorizing, defining, and identifying people also relates to Goffman's (1967b) proposition that people are greatly subject to the social worlds they enter after undertaking risk taking occupations. Similar to Goffman, I suggest in the next chapter that these processes involve valued human qualities and the development of reputations.

Categorizing people with terms such as 'city boy' and 'city girl' relates to Desmond's (2007) propositions about 'city boys', 'country boys', and 'the country-masculine habitus'. In this thesis, though, I suggest that Desmond exaggerates the importance of rural working class masculine upbringings in being and becoming wildland firefighters. This appears to result from Desmond's use of data, which is seemingly somewhat generalized to the USFS too smoothly from a small number of relatively similar people, as well as Desmond's use of particular theories (e.g., a theory on the body that inadequately accounts for human change). One of Desmond's main interpretations of data is that people acquire different amounts of 'country competence' before undertaking wildland firefighting, and that those who have more, more easily adapt to the rigors of wildland firefighting and the common sense of the USFS. This, as suggested, somewhat minimizes the importance of one's capacity, ability, and passion to meet the rigors of wildland firefighting. Relatedly, in a sense, it minimally accounts for the possibility that one's life circumstances, for example, not enjoying the job but needing the job to live, or losing interest in the job, can hinder their desires to fully exert their energy to the rigors of wildland firefighting or to a wildland fire management organization. Desmond suggests one's ability is important in becoming a wildland firefighter, but in Desmond's interpretation of wildland firefighters, one's ability within these terms appears much less

important than their childhood and adolescent experiences (see Desmond 2007:46-52 and 321-322). I do not deny that some experiences Desmond discusses can help people be and become wildland firefighters. In the next section of the chapter, interview data from Jordan suggests that childhood and adolescent experiences can expose people to knowledge that can be useful in being and becoming a wildland firefighter.

JORDAN

Like Mason, Jordan was from the little town next to the firebase. As a child, Jordan mostly lived in the little town, but sometimes in neighboring towns. We first met shortly after I started working at the firebase in 2009. In some way, Jordan was a mentor to me for quite some time. But in my later fire seasons at the firebase, we worked together mentoring newer firefighters and managing wildland fires. In an interview, Jordan told me about wanting to become a wildland firefighter and growing up with a family of loggers. Jordan undertook wildland firefighting at the age of 16.

Since I was about seven, eight years old, I would go to the firebase where I now work. I used to go watch them work and watch them go to fight fires. And I'd hear the helicopters. It all amazed me. It was always something I wanted to do.

*Did anyone in your family fight fire?*

No, I come from a family of loggers. It just changed. Now it seems like we're all firefighters.

*Can you tell me a story about growing up with a family that did logging?*

Well, I didn't see my dad very much. He was always gone, off in the bush, so there was always wood cut. But you'd get to go out there, he'd take you out there some days, and you'd go watch them work—watch the skidders. Back then there used to be lots. Everybody was a logger. You'd go sit around the trucks and watch them limb the trees and do their job. I was always seeing that. Thought that's what I'd be doing. Tried it, I didn't like it. I didn't. I used to go cook for the guys before too. When I was firefighting, in the wintertime [(when fire season was finished)], I'd go up for a couple weeks and cook for the guys. I'd go out in the bush, take over a machine for a couple hours and go log myself. They showed me

how to run their machines. I got to fool around on all the machines. I got to learn that part of it, but never took an interest in it.

*Why didn't you take an interest in it?*

Because all I wanted to do was work with fires. I guess I never wanted to be in the same role, I guess, as the rest of my family. So everybody from this place is a logger. Now they're all switching to firefighting—firefighting and mining.

### *Linking Stories to Literature*

The data suggest that Jordan was exposed to wildland fire management early in life by living in the little town, which shaped a personal desire to be and become a wildland firefighter. Seeing wildland firefighters working at the firebase likely exposed Jordan to local knowledge, perspective knowledge, language knowledge, and facility knowledge. Jordan presumably gained more abstract knowledge rather than practical knowledge from the experiences. The data also suggest that going to see loggers exposed Jordan to relevant local knowledge (near the little town) and relevant facility knowledge (skidders and trucks). Although employment opportunities in the little town were limited, the data indicate that Jordan had some choice in choosing a job from the immediately available types of employment in the little town. This relates to Goffman's (1967b) proposition that people have some amount of choice in undertaking risk taking occupations.

### BLAIRE

Similar to Mason and Jordan, Blaire grew up in a little that was fairly isolated. Wildland firefighting was one of few options for work. Blaire and I worked at different firebases but we occasionally saw one another at fires and training courses. We spoke in an interview for this thesis after teaching a Type II Fire Fighter Crew Leader course. The course was delivered in the town next to the firebase where I worked. In the interview,

Blaire told me about growing up and learning how to ‘live off the land.’ I heard stories about hunting ‘moose,’ ‘deer,’ ‘ducks,’ ‘geese,’ ‘rabbits,’ and ‘grouse’, as well as a story about trapping.

One time we were trapping in the wintertime. My dad, my cousin, and his nephew, went and set traps and I was there to help check them. My dad told me, when we first got to the trapping spot, that my cousin made a bunch of holes for looking for beaver runs around the beaver house. So, he told me, ‘Just be careful. Don’t wonder off too far.’ And of course, me, I wasn’t really listening to him, so I wondered off just to be nosy because I wanted to see how the runs were checked and what not, and I fell in. Half my body went in the water and I couldn’t touch the ground. I was so scared and he had to trade me his clothes for my wet clothes and we had to go back home right away. In that spot we caught six beavers and we had eight traps set out. I kind of cut him short because he had to drive me home on the skidoo and it was during the cold days. I remember my clothes started freezing as soon as he pulled me out. I must’ve yelled and he grabbed me. I don’t know how he did it that quickly. I didn’t touch the ground. And I was just wondering, what if I went under, if I didn’t yell. Maybe he would’ve lost me, and maybe I wouldn’t be sitting here right now. But that’s one story I can’t get out of my head. Like that’s a scary, scary feeling. What if I was alone and I fell in and no one was there to grab me out of the hole? Because the hole was probably three feet by three feet and it snowed the night before so it didn’t even look like a hole. I didn’t even see the hole. I was walking backwards and I fell in, half my body fell in anyway. So that’s one story about trapping that I always bring up because I could’ve died that day, I think.

Blaire’s ‘dad’ was a trapper and a fisher. Blaire’s ‘mom’ worked ‘odd jobs’ when work was available.

I could say we weren’t rich. We lived off the land and my mom did odd jobs like cleaning up houses and my dad was a trapper and fisherman kind of guy. So we didn’t have very much money when we were younger. That’s why I really wanted to get a job. I didn’t want to live like that. I wouldn’t want my kids to live like that.

Growing up, Blaire saw family members and friends undertake wildland firefighting.

Many people in the town worked as wildland firefighters. Its’ identity is still greatly centered on wildland firefighting. Blaire undertook the job at the age of 16.

I remember this older fella was going to the compound. I asked, ‘What’s going on?’ ‘They’re picking firefighters,’ he said. ‘You certified?’ he asked me. And I

said, 'Yeah, I just got certified a couple weeks ago,' like, just excited, like, I hoped I got on. So I ran, because this was the time you had to run to the compound to sign up for firefighting. There used to be a rush of people going there. This was back in the day when they paid firefighters on the line so it was pretty cool back then. And my first fire, it was hard for me to get on because they only picked two crews, two ten-person crews, and there was like sixty guys there trying to get on a crew. So I was in the back there and I was just waving trying to get picked. There were two crew leaders that got hired right away and what they did, was they went to the gate and they—they used to actually pick their firefighters like that, out of the crowd, by hand. And this wasn't a first come first serve kind of basis, it was like, the crew leader wanted a person so they'd just go look for him. So that's how I got on. I just wanted to check it out and I raised my hand for the hell of it asking to get on. And one of the crew leaders, an older fella, he said—because I knew him from before—'You,' and he was pointing at me. And I said, 'Yeah?' 'You want to go?' And I said, 'Out there, yeah.' So he said, 'Yeah, come up.' And he signed me up and told me to go pack up. 'You need a bedroll, and clothes, and steel toed boots,' he said. And I said, "Oh, cool." So I went home and I packed up all my stuff, and my dad, my dad wasn't really, didn't really want me to do it I guess. I don't know. But I said, 'Well, I want to go, I want to make some money.' So I went.

Blaire's 'dad' 'didn't really care for stuff like' wildland firefighting, but the job offered an opportunity to make money and to work 'outdoors' in 'the bush.' Blaire proclaimed to enjoy 'the outdoors'.

#### *Linking Stories to Literature*

The first passage from Blaire suggests that Blaire possesses local knowledge from a childhood experience trapping. Blaire seems to convey knowledge about the physical features of a place, including its weather. It is likely that the physical features are still similar. The data also suggests that Blaire is aware of possessing local knowledge to some extent and that the knowledge is part of how Blaire self-identifies (knowledge of how to 'live off the land'). The trapping story relates to Desmond's (2007) proposition about 'fathers' cultivating 'country competence' in their children. However, the fundamental elements of the story, perhaps those that contribute to its form, are contextually relatable to many different life experiences. In the story, a parent attempts to

teach their child about taking care of their self (Goffman 1967b). Having any person teach another about taking care of their self, about risk avoidance, is part of nearly every person's life course, usually at many points in time. Presumably, these experiences can provide people with skills and views that can assist them in being and becoming wildland firefighters. I show interview data in the next chapter that suggests that to a great extent managing wildland fire involves skills for avoiding risk. The trapping story also suggests that Blaire was curious to experience something newer (Simmel [1911/1919] 1959), so much so that the human quality of listening and complying with another's advice about taking care was seemingly neglected. In the next chapter, I discuss how listening is a valued quality among many wildland firefighters. Listening is a human quality, which is involved in wildland firefighter trust and how wildland firefighters can experience risk. It can be used to mitigate risk.

The second passage from Blaire suggests that the idea of living life differently than what was thought to be experienced in childhood prompted Blaire to undertake wildland firefighting. Blaire wanted to live a life with more money. This relates to Hooker and Csikszentmihalyi's (2003) proposition that people may first undertake activities for their extrinsic rewards. However, the second passage also suggests that a current reason Blaire manages wildland fire is to make money to support family members. The data additionally suggests that undertaking wildland firefighting, 'to check it out', was personally somewhat adventurous for Blaire (Simmel [1911/1919] 1959).

Mason, Jordan, and Blaire were greatly exposed to wildland firefighting early in their lives. They undertook wildland firefighting at a younger age than most people in

this thesis. It appears this was the case because they grew up in places with few opportunities for work aside from wildland firefighting.

Some people in this thesis were introduced to structural firefighting early in their lives. Others were introduced to structural firefighting and wildland firefighting. I met many people, most often from northern Saskatchewan communities, who both worked as wildland firefighters and volunteered as structural firefighters. The influence of exposure to structural firefighting in undertaking wildland firefighting was shown in stories that Blake told me.

BLAKE

I met Blake the day I was puking in the grassy field under the cloudless blue sky. Blake was the person who drove me from new hire training to the provincial fire center. We fought fire on the same crew for three years so we experienced a lot of life together. Blake grew up in a Manitoba city, then in a Saskatchewan city. On undertaking wildland firefighting, Blake said:

I wanted to be a firefighter since, well, ever. My dad was a structural firefighter so I wanted to be a firefighter since I was like four years old. I used to pretend stuff was on fire and I'd try to put it out with a hose or cups of water or whatever I would find. Well my parents said that I would try to put it out. So yeah, I basically came out of high school, applied for fire-college, got in, but I declined to go because I went to the rigs for a few years to make some money. But then, I got a couple speeding tickets so I couldn't get into fire-college. So I went to forest firefighting and applied for Saskatchewan.

Blake undertook wildland firefighting at the age of 21. Like many people in this thesis, Blake was involved in sports and cherished and spent much time 'outdoors' growing up.

I was a pretty active kid when I was little. I have ADD so I did a lot of outdoor things. Anything from bike riding, like BMXing, to skateboarding, to snowboarding, I played hockey, football, and volleyball. So I was a pretty active kid even when I was five, six, seven, eight years old. I've always been into sports and I'm always busy.

### *Linking Stories to Literature*

The first passage from Blake suggests that Blake was infatuated with fire early in life. This relates to Desmond's (2007) suggestion about most of the crewmembers in *On The Fireline* being infatuated with fire early in life. The data also suggest that Blake was exposed to local knowledge, perspective knowledge, language knowledge, and facility knowledge about structural firefighting. This knowledge is relatable to wildland firefighting knowledge. The data additionally suggest that Blake, like many wildland firefighters in this thesis, identifies as a person who enjoys 'the outdoors' and who participated in many sports growing up.

### KENDALL

Structural firefighting was also influential for Kendall in undertaking wildland firefighting. I met Kendall for the first time on a weekend assignment to a firebase to backfill another wildland firefighter. For the most part, in the few days I was assigned to the firebase we extinguished a fire at a dump, patrolled campsites to make sure people were managing their campfires well, and participated in public relations for WFMB. This involved Kendall wearing a Smokey Bear costume and wildland firefighters giving children promotional Smokey Bear items.

Smokey Bear is WFMB's mascot. One might say that Smokey Bear is an offshoot of the USFS's mascot Smokey Bear, who primarily promotes fire safety and fire prevention. Typically, Smokey Bear messages are about not starting wildland fires, and monitoring and extinguishing campfires correctly. Smokey Bear is a brown bear who carries a red shovel, and who wears blue jeans, a brown belt, and a beige, round-brimmed

ranger hat that says ‘Smokey’ on its front. For public events, WFMB firefighters are sometimes asked to wear a Smokey Bear costume.

About a month after seeing Kendall as Smokey Bear, we met at the fire where Reagan and I almost got struck by lightning. In an interview, Kendall told me about undertaking wildland firefighting.

It just kind of fell into place. I went to school for structural firefighting with another [wildland] firefighter who’s from [Powder Mountain Fire Base], which is where I’m working now. It’s hard to get a job after school on a structural department so I was kind of not doing anything and he said, ‘Hey, you should just apply and see what happens’—he said it was a blast, so I applied, and here I am. It was kind of like, I’m not doing anything fire related, so I might as well do this. This job is awesome for structural firefighters who can’t quite get on a department yet because they’re still doing something fire related, they’re still around fire. And yeah, it’s not a year round thing so you can work on getting a job in the off season. Then, if by next fire season nothing comes up, you can come back and do this.

To Kendall, wildland firefighting was a temporary job before undertaking structural firefighting. Kendall grew up away from the forests in a Saskatchewan city.

As a kid I was always outside. Even now, I’d rather be outside than in an office. The fresh air is nice. The scenery is nice—way better than indoors. Nowadays, when kids go out and play, it’s like, ‘Do you want to play Xbox or do you want to do this?’ And back in the day when I was growing up it was like, ‘Hey man, do you want to play?’ And you kind of really didn’t know what you were going to do. And then you just met up and did whatever—go to the park, play baseball, or throw the Frisbee around. But it was always outside which I think has changed nowadays. A lot of the kids hang out indoors now, video games and this and that, but it feels like it was once outdoors and now they’re trying to get back to promoting kids to get in motion; to get kids out there instead of sitting on the couch and watching TV all day.

Rather than sitting on the couch and watching TV all day, Kendall sometimes spends time away from work participating in ‘fast-paced hobbies.’

I longboard, I snowboard, I rock climb, and I mountain bike. Everything is like, not extreme, but it’s just kind of out there. That’s what I like to do. But at the same time, I like doing chill stuff too. But [longboarding] is just awesome. Just exhilarating. Sketchy at times, but at the same time, it’s awesome because you’re

like in control. You just have to maintain control and not lose it. But it's sketchy because you're going so fast. That's what I like about it. One wrong move and you could eat shit, yard sale. Yeah. Rock climbing is awesome too. I did my first lead climb last summer. It was like six bolts, but it was a really long climb, so the spaces between the bolts were really spaced out. So before you clipped in, it was just like, you could free fall, take a huge whipper, because the bolts were so spaced out. But that was awesome. I really like rock climbing because it's something so extreme, but at the same time, it's so technical, and you just got to, it's kind of like a slow thing, climbing is super slow.

### *Linking Stories to Literature*

The story of Kendall as Smokey Bear suggests that WFMB firefighters were quickly exposed to, and sometimes quickly promoted, parts of the organization's perspective on managing wildland fire. Sometimes wildland firefighters were expected to promote parts of the perspective at public events as a work duty. No wildland firefighters I met wholly opposed WFMB's perspective on managing wildland fire. But many opposed parts. For example, some wildland firefighters, especially those from northern Saskatchewan communities, disagreed with policies about 'observing' fires in northern Saskatchewan rather than extinguishing them. They called 'observation policies', 'let it burn policies' (StarPhoenix 2015; MBC 2010). In conjunction with 'community response zone policies', which were once partly written as though wildland firefighters were only permitted to extinguish and suppress wildland fire once it moved from an 'observation zone' into a 20-kilometer radius around certain communities, they sometimes maintained that 'observation policies' let wildland fire diminish the beauty of forests, ruin trap-lines and lodges, and put communities at risk by permitting the fires to grow beyond human control before firefighters were allowed to extinguish or suppress them. Other wildland firefighters greatly adopted the view endorsed by many organizational leaders, suggesting that 'observation policies' permitted wildland fires 'to do their natural, beneficial and

ecological processes'. Many understood these attitudes, agreed and disagreed with them in some way, and possessed their own attitudes. WFMB eventually eliminated of the 20-kilometer community response zone policy (CBC 2016). It appears the policy was removed because it was causing too much controversy.<sup>16</sup>

This relates to Desmond's (2007) proposition about wildland firefighters coming to identify with, trust, and have faith in the USFS by learning and accepting its' symbolic struggle between environmentalists and the USFS' wildland fire management section. I suggest in the next chapter that wildland firefighters trust their organization in some way before they are hired to manage wildland fire, and that relations of trust between wildland firefighters and WFMB, about the organization's endorsed wildland fire management perspective, often change variously from their initiation. I suggest that wildland firefighters generally become more involved in conversations about WFMB's perspective on managing wildland fire with time.

Similar to Adrian, the interview data suggest Kendall undertook wildland firefighting to gain fire experience to then undertake structural firefighting. The data indicate that Kendall was influenced to become a wildland firefighting by the current difficulty of becoming a structural firefighter in Saskatchewan. Through the data, Kendall

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<sup>16</sup> The policy changes seemed to have mostly only removed a narrative wildland firefighters and 'the public' could draw on in challenging the government. Simultaneously, the changes seemed to bolster the power of WFMB's leaders to manage wildland fire at their own discretion. WFMB leaders removed and added many policies, but nowadays highly proclaim that the organization manages wildland fires based on an order of priority—human life, communities, major public infrastructure, commercial timber, and remote properties—which they use in their decisions, as well as information about available resources, to decide which wildland fires to manage (GOS 2016d). WFMB leaders proclaimed for a long time to use the order of priority approach. It was part of older policies as well. However, there were also policies that included maps with zones (e.g., observation zone and community response zone) and information about how wildland fire would be managed in those zones.

constructs a sense of self that relates to Desmond's (2007) propositions about wildland firefighters possessing ideas about 'outdoor' people and 'indoor' people. However, growing up in a city, Kendall problematizes Desmond's crewmembers' attitude about 'indoor' (city) people and 'outdoor' (country) people. Kendall lived in a city growing up, but enjoyed the 'outdoors'. Through the data, Kendall also constructs a sense of self that connects enjoying being outside and spending much time outside growing up to a current enjoyment of being 'outside', which likely influenced Kendall and most wildland firefighters in this thesis to undertake wildland firefighting.

The interview data also suggest that Kendall's participation in different activities may have influenced Kendall to undertake wildland firefighting. One of the activities, rock-climbing, has been studied as a risk taking activity (Kiewa 2001; Abramson and Fletcher 2007). This relates to Goffman's (1967b) suggestion and Lyng's (1990) suggestion that sometimes people who participate in risk taking activities are willing to try different risk taking activities. Moreover, Kendall's longboarding and rockclimbing stories relate to Desmond's (2007) proposition that wildland firefighters prize control and competence above all attributes. In the stories, Kendall suggests that the need to maintain control, the significance of technique, and the ability to address risk are involved in the activities. Kendall likely gained skills within these terms that were useful in being and becoming a wildland firefighter. Most wildland firefighters, as alluded to, participated in activities that likely gave them skills, attitudes, and experiences to assist them in being and becoming wildland firefighters. Lane, for example, participated in motorcycling.

LANE

Lane and I first met before we entered a two-propeller white and orange plane when we were traveling to a wildfire in northern Saskatchewan. We landed at a small airport then transferred into a helicopter and flew to a camp in the forest. We lived there for seven nights—an emergency medical technician, twenty firefighters, and two cooks. Every day we awoke to lakefront views of sunrises clouded by drifting smoke. By 10:30 a.m., the fire usually went wild and eddied above the trees. By 11:00 a.m., water bombers sometimes arrived to cool the fire. By 8:00 p.m., we swam in the lake near camp and watched sunsets clouded by drifting smoke. Some days ended with shimmering auroras.

One night, Lane and I talked in an interview in the forest near camp. Lane told me about deciding to undertake wildland firefighting at the age of 23.

I didn't realize that it [(WFMB)] existed until I took my course at [school] and then I was taught a fire course by [someone] who used to be in Wildfire Management. I didn't realize he was until later on, but [the instructor] actually talked about the [fitness] test and wanted to recruit firefighters and all that stuff. And then I ran into [Taylor] at a career management fair, and he, [Taylor] being [Taylor], said, 'Oh, you're female, you should apply for this, and you look fit, and if you can do it, you'll probably have a job.' So, I ended up deciding to do it. I really like being in a job where it's a non-traditional role for women. I find it a really good challenge, and I like to work with men. I have no problem with it. I do girl guides and I love showing girls that you can do something that people tell you, you can't. Because so many people, you know, and I know it's the same for men, and I love to see men in non-traditional roles too, but I think that was a big part of it. I love being in a non-traditional job and showing that people can do it, and especially with the new [fitness] test, there will be more. So I guess I like the challenge, I like being fit, and I like being outside.

*Why do you like being outside?*

I've always liked being outside. I loved to camp as a kid. We lived at a cabin in the summers. My mom was a teacher so I just always liked being outside. I like the calm. I like nature. I like plants. I like bugs.

I later asked Lane questions about being part of the girl guides program.

*Were you involved with the girl guides program for most of your life?*

I was, as a kid I was. And then I stopped. And then I actually returned when I was in my last year of high school as a leader. And I've been leading now, for, oh lord, seven years.

*What does that mean? Leading.*

It means you run a group, a unit. So I ran a guide unit, which is a bunch of nine to eleven year olds and they're super fun because these are kids that have never been out camping before, or done anything. And I still remember the first time I made one girl cook on a camp stove. I could not drag her away from that camp stove after that. She loved it. Just fun. And right now I lead the oldest group of girls, which is a bunch of snarky teenagers, but they're fun. They want to go out and they want to camp and they all get along good.

*What do you do on the camping trips?*

If I could get them out, I just basically, right now, I just sort of follow whatever they want to do. If they just want to camp and sit there, they can camp and sit there. If they want to go on a hike, we'll go for a hike. They're sort of meant to be in the role where they're doing what they want to do and I'm just supervising, making sure they're not being too silly. On a younger age level camp group, you'd have activities and I'm always into making them be outdoors and starting fires.

*Do you teach them stuff?*

I try to educate them on certain things, even if it's simple things like learning how to set up a tent. You wouldn't believe how many people don't know how to set up a tent and just look at you like, 'I'm not setting that up.' 'Why are you in this program?' So, it's teaching them independence, and I'm really big into teaching independence. You learn to work as a group with maybe, some people that you don't love, but at the same time, you learn to do things on your own, and that you can do things on your own. That's a really big part of it.

In addition to participating in the girl guides program growing up, Lane motorcycled.

I enjoy it. I don't do highways. I don't like to go on highways. It's too fast and there are too many things. I like going in the city. Just having something to scoot around the city with. My dad's the one who's into it and my mom has a bad neck and doesn't ride anymore. My sister rode for a while and I don't think my brother's actually ridden very much. I think my dad and I probably ride the most. I like biking. I like being out in the wind and feeling it and it makes you more aware of things. More than being in a car, because in a car, you're almost so protected. But on a motorcycle, you're not. And it's that awareness thing. You

have to be aware. And you're controlling and you're shifting the gears, and you have to balance. It's a different way of moving around. You're watching what's going on and making sure you know where everyone is because they will hit you.

### *Linking Stories to Literature*

The first passage from Lane suggests that Lane was exposed to WFMB local knowledge, perspective knowledge, language knowledge, and facility knowledge to some extent at school. The course Lane took has both a theory component and a practical component. In taking it, Lane presumably created and trusted knowledge by a shared relation with the school and WFMB. Lane therefore likely trusted WFMB in some way. This compliments Desmond's (2007) suggestion that that the USFS had to win over its' members once they joined the organization. Lane's story suggests that before Lane applied for wildland firefighting the employer may have already 'won'. It seems that the employer 'wins' when any person submits a wildland firefighter application. Yet the employer must trust the candidate somehow if the employer choses to take a chance. Submitted applications may eventually be seen as more of a 'loss' looking back.

The interview data also suggest that the enjoyment of being 'outside' and being 'fit' influenced Lane to undertake wildland firefighting. The idea of challenging gendered workplace roles seemingly influenced Lane to undertake the job as well. In the interview, Lane connected gendered statuses and sexed statuses, self-identifying as a 'woman' and a 'female' respectively. This discussion relates to Lupton's (1999) suggestion that dominant notions "linking certain risk-taking activities with masculinity have begun to be challenged by some women, who have sought to perform alternative femininities through engaging in such activities" (p. 163). As passages in Chapter 3 showed, for much of the 1900s, many people, not only within the wildland fire management community, seemed

to have considered that the job was for those they deemed ‘men’ and ‘males’. From the 1900s to 2017, the majority of wildland firefighters were people who have often been deemed ‘men’ or ‘male’. Nowadays, the majority of wildland firefighters affiliated with WFMB are people who have often been deemed ‘men’ or ‘male’. Especially during the last four to five decades, though, there is a general trend of more people who are often deemed ‘women’ or ‘females’ becoming WFMB wildland firefighters. Nonetheless, it seems that Lupton, similar to Lane, connects gendered statuses and sexed statuses. At the theoretical level, from sexed statuses, however, Lupton appears to attach categories of gender such as ‘masculinities’ and ‘femininities’ to sexed statuses. In consequence, similar to the authors I introduced in Chapter 4, Lupton somewhat essentializes behaviors to groups of people by using categories of gender. Although conveying that ‘some women’ have sought to perform ‘alternative femininities’ was perhaps a way for Lupton to evade the idea that ‘women’ are performing ‘masculinities’ and being ‘men’, I suggest that the distinction is problematic and divisive. To me, the people Lupton speaks of overwhelmingly express human behaviors, for which gendered differentiations such as ‘femininities’ and ‘masculinities’ seem greatly unnecessary.

The interview data also suggests that the girl guides program provided Lane with knowledge that could have helped in being and becoming a wildland firefighter. Lane presumably developed skills for working independently and as a team member, leadership, and ‘the outdoors’. As suggested, the interview data additionally indicate that motorcycling, an activity that has been studied as a risk taking activity (Murphy and Patterson 2011), likely helped Lane develop skills that may have assisted in being and becoming a wildland firefighter.

## OTHER WILDLAND FIREFIGHTERS IN THE THESIS

Stories in this chapter from Reagan, Mason, Adrian, Jordan, Blaire, Blake, Kendall, and Lane are similar to stories I heard from others in this thesis. For example, Quinn grew up in a little town, started working at a firebase, but then transferred to a different firebase. Since childhood, Quinn has spent time hunting, fishing, and camping. Quinn proclaimed to have always cherished the ‘outdoors’. Morgan formerly volunteered as a structural firefighter and was employed to maintain hiking trails in two National Parks before undertaking wildland firefighting, an undertaking that was influenced by seeing wildland fire and firefighters in the two National Parks. Morgan grew up in a small city and spent time fishing, camping, playing soccer, canoeing, and swimming in lakes. Morgan recently started kite-surfing. Evan grew up in a fairly isolated little town where wildland firefighting and commercial fishing were the most accessible options for work.

It was either fishing or firefighting, and I didn’t go with fishing. It wasn’t as much money I guess, and all my cousins and everybody did firefighting. That was just the summer thing to do kind of thing. So as soon as I turned sixteen, I got my course and started from there.

Since childhood, Evan has spent much time hunting, fishing, and camping with family and friends. Casey is a trained structural firefighter who wanted to try wildland firefighting to experience both jobs. In addition to cherishing ‘the bush’, Casey enjoys restoring vehicles, running marathons, camping, and traveling. On one trip, Casey ‘explored’ a country and went bungee jumping. On another, Casey started slack-lining. Sydney grew up in a little town, but as a child did not necessarily want to be a wildland firefighter.

[Becoming a wildland firefighter] wasn't really a choice, it was just a job opportunity that had good benefits and I was having kids, so, I thought I could use it for my kids. Like the insurance benefits, pension plan, all that stuff.

*What do you mean by it wasn't really a choice?*

It wasn't really my first career choice, you know. I never really ever wanted to ever be a firefighter. I always wanted to play sports and play hockey and stuff and that didn't work out, so, here I am.

*Did you play sports in your childhood?*

Yep. Just mainly hockey and volleyball.

*What else did you do?*

Mostly worked on my dad's farm. Like, working on a combine bailer, tractor, that kind of stuff. And helping out with the cows, horses, and, yeah.

#### A SHORT DISCUSSION

The interview data in this chapter was about the backgrounds and identities of wildland firefighters, as well as what seemingly influenced the people in this thesis to undertake wildland firefighting. I used some of the stories to begin developing the main argument in this thesis about wildland firefighter trust and how wildland firefighters can experience risk. The empirical data in this chapter complement the risk taking and wildland firefighting literatures on the themes of backgrounds and identities and why people are influenced to undertake dangerous occupations.

On the backgrounds of wildland firefighters, the data particularly complement Desmond's (2007) interpretation of USFS wildland firefighters. Many people in this thesis were from small towns with populations less than 10,000, but some people were from cities with populations from 30,000 to 200,000+. The people in this thesis were from various residential areas. Generally, those who were from the smallest, most isolated towns were greatly exposed to wildland firefighting growing up. Those who

grew up close to firebases or who had family members who were wildland firefighters gained knowledge about managing wildland fire growing up. The knowledge they gained was more abstract than practical. Some people in this thesis were greatly exposed to structural firefighting growing up as well. People who were highly exposed to any type of fire management indicated that early in their lives they wanted to eventually become firefighters. Thus, similar to Desmond's crewmembers, many people in this thesis were presumably infatuated with fire early in life.

Wildland firefighters in this thesis spent much time 'outdoors' growing up and enjoyed it. Many were seriously involved in sports, hobbies, and other organized activities. Most continued to spend much time 'outdoors' and to participate in these activities when they were not at work. These experiences could have helped them in being and becoming wildland firefighters. Being 'outdoors,' for example, could have provided them with local knowledge, relatable local knowledge, or skills to acquire local knowledge that could have helped them be and become wildland firefighters.

In all life experiences people can gain skills and views that can help them be and become wildland firefighters. This was suggested through Blaire's trapping story, Kendall's rockclimbing and longboarding stories, and Lane's motorcycling story. I used and extended Goffman's (1967) proposition that parents teach their children to take care in the discussion. I indicated that it appears there are fundamental elements of life that most people learn to deal with to survive. 'Physical' danger to the self was one of them. For these reasons, I proposed that despite the human activity, risk avoidance of some type and amount is generally involved in being human, making all life experiences somewhat relevant and possibly helpful to being and becoming a wildland firefighter. Relatedly, I

suggested that one's capacity, ability, passion, current life circumstances, and experience are highly relevant to what a person can be and become. These suggestions partially problematize the importance that Desmond (2007) gives to rural, working class, country-masculine upbringings in being and becoming wildland firefighters. I met many people, for example, who grew up "of the country" (p. 47), as Desmond puts it, who thus went fishing, hunting, camping, and so forth as children, and who gained much "country competence", but who had much difficulty adapting to the demands of wildland firefighting because of their capacities, life circumstances, and how onerous the demands of wildland firefighting can become.

On the identities of 'wildland firefighters,' some WFMB wildland firefighters connected sexed and gendered statuses and attributed the statuses to their counterparts. Many wildland firefighters also attribute racialized, aged, ethnic, and sexuality statuses to their counterparts. In addition, some attributed place-based statuses to their counterparts, which were primarily about conceptions of what places give to people. Usually these statuses included a gendered status. Some wildland firefighters self-identified with terms such as 'woman' and 'city boy,' but not necessarily with the definitions their counterparts attributed to the terms. Moreover, some wildland firefighters took great pride in being associated with towns and firebases, especially if the wildland firefighters were from towns and firebases that were well reputed.

Conceptions of 'the outdoors' and 'the indoors' were central to most wildland firefighters identities and their sense of self. I showed that many wildland firefighters conceived of these terms differently than crewmembers in Desmond's (2007) study. Wildland firefighters in this thesis did not necessarily view 'the outdoors' and 'the

indoors' in such ways as Desmond's crewmembers. In addition, in contrast to Desmond's crewmembers, no person in this thesis, that I am aware of, associated 'the desk' with 'middle-class managerial masculinity' and 'the forest' with 'working class masculinity.' These appear to be theoretical categories Desmond overlaid onto data in interpreting data. Similarly, no person in this thesis, that I am aware of, thought structural firefighters were more sissified and less manly than wildland firefighters. From the data in this chapter, however, many people might say, similar to the wildland firefighters in Desmond's study, many wildland firefighters in this thesis were working-class men, who were not educated at the post-secondary level, and who were not rich.

A significant part of many wildland firefighters' identities and sense of self in this thesis was their participation in sports, hobbies, and other organized activities. Some activities they participated in have been studied as risk taking activities. Their participation in the activities partly supported assertions in the risk taking literature about people who participate in risk taking activities wanting to try different risk taking activities (Goffman 1967b; Lyng 1990).

There were many reason wildland firefighters in this thesis undertook their job that complement the risk taking literature about why people are influenced to work in dangerous occupations. An appreciation of 'the outdoors' and being 'fit'; the places people grew up and lived; the need or desire to make money to live in particular ways; employment opportunities and restraints; the media; courses at school; friends and family members; the desire to leave an unfulfilling job or to work a fulfilling job; challenging gendered roles; gaining relatable experience as a wildland firefighter to undertake a

different job; and a sense of adventure influenced them to undertake their occupation. Many of these factors were interrelated and simultaneously relevant.<sup>17</sup>

Interview data also supported Goffman's (1967b) proposition that people have some amount of choice in undertaking dangerous occupations. The data supported and complemented Desmond's (2007) proposition that social, political, cultural, and economic contexts influence people to undertake dangerous occupations. The data supported Desmond's proposition that many people had interpersonal connections to their host organization before undertaking wildland firefighting. The data greatly questioned Lyng's (1990) suggestion that people undertake dangerous occupations in opposition to the constraints of modernity. For example, it strongly seems that many wildland firefighters were influenced to start wildland firefighting because they enjoyed being 'outdoors.' Many people were also seemingly influenced to manage wildland fire because wildland firefighting was a significant feature of the places where they primarily grew up.

The influence of place was highly significant for people in this thesis in undertaking wildland firefighting. Most of the wildland firefighters lived the majority of their lives in Saskatchewan, 12 of 15, specifically. Moreover, of all the wildland firefighters I met in the province—Type 1, 2, and 3 Fire Fighters—most were 'Indigenous Peoples' (some people might say) who lived in the forests of Saskatchewan nearby firebases where the availability and possibility of easily getting jobs with the

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<sup>17</sup> Another factor that influenced some wildland firefighters to undertake and return to wildland firefighting was the employment insurance program. Many wildland firefighters applied for and received employment insurance when they were seasonally laid off. Because the employment insurance program limited the employment offers people who were using the program could reject, if people did not find different work before they were offered positions or were recalled to their fire management positions, they were greatly required to accept the offer.

exception of wildland firefighting was very limited. The forests begin just south of the province's center and continue north to and beyond the Northwest Territories and Saskatchewan borderline. Many people might say, then, that this problematizes Lyng's (1990) suggestion that, in "general, it appears" that "lower income edgeworkers...completely reject highly alienating factory work or service work in favor of high-risk occupations such as policing, fire fighting, or combat soldiering" (p. 876). Although some wildland firefighters were not 'lower-income', the locations where most firefighters lived greatly influenced them to undertake high-risk occupations.

In addition to any combination of the mentioned factors that influenced people to undertake wildland firefighting, some wildland firefighters in this thesis returned to fight fire seasonally because they thought the job was fun; the job provided them with a sense of altruism; they felt they were an important contribution to WFMB, their fire crews, and their firebases; and they thought that the extent of their experience was greatly needed at their workplaces to protect communities, mentor inexperienced firefighters, and keep inexperienced firefighters safe.

While I used interview data in this chapter to discuss the backgrounds and identities of wildland firefighters, I also used the data to begin to develop the main argument in this thesis about trust and risk. I alluded to wildland firefighter trust in their training and host organization. I indicated that trust is structurally essential to managing wildland fire, but that relations of trust could change with time. In the next chapter, I extend the discussion about trust and risk by showing how relations of trust are integral to being and becoming wildland firefighters and how wildland firefighters can experience risk.







## **Chapter 7: Knowledge, Risk, and Trust in Wildland Firefighting**

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### A SHORT STORY

A lake breeze was drawn across the ice to the land where there was dead grass, leafless aspen, and white spruce. The cold wind came from the northwest, then the west, and back again from time to time. The sun rose in the pale blue sky to the southeast. The day was going as planned. Everybody was ready. The call was given. The newer wildland firefighters lit their drip torches and started putting fire to the ground. First, fire was used against the wind to burn dead grass alongside wetted grass that traced the perimeter of an aspen and spruce forest. The fire moved slowly against the wind, creating wide black lines on the land in front of the forest. Then, when the older wildland firefighters thought the black lines were wide enough, another call was given. The newer wildland firefighters used fire with the wind to burn the remaining dead grass to the black lines.

When newer firefighters put fire to the ground for the first time in a ‘controlled’ setting they are usually timid and hyper-cautious, especially if they have not seen much fire. They ask specific people, who they deem worthy, for guidance. They put fire to the ground slowly, not allowing it to grow too large. When one deviates even slightly from a discussed plan, their counterparts carrying drip torches quickly police them back in line. Many social processes that underpin the moments when newer wildland firefighters first put fire to the ground in a ‘controlled’ setting similarly underpin many life moments.

This chapter is about risk, knowledge, and trust in being and becoming a wildland firefighter. I show how the interplay of concepts of trust and knowledge can influence how wildland firefighters can experience risk. Specifically, I show how self-confidence, behavioral trust, wholehearted trust, and mutual trust relate to how risk for wildland

firefighters is sometimes increased, decreased, concealed, revealed, and anticipatorily transformed in being and becoming a wildland firefighter. I created the concepts of trust from interview data I produced, and literature I read, for this thesis. I identify and mostly focus my attention on wildland firefighter trust in five main entities: self, other, groups, organization, and wildland fire. I mostly focus my attention on trust in these entities because they seem to represent distinctly important parts of situations for wildland firefighters. I consider an entity is anything identifiable. I use the word 'part' as a synonym for 'entity'.

The chapter has two key sections. First, I describe the core concepts of risk and trust. The discussion is partly a review of concepts from earlier chapters. I explain the concepts: risk, shared risk, normal risk, self-confidence, behavioral trust, wholehearted trust, and mutual trust. Second, I show how some of these concepts relate to interview data. I examine these concepts in relation to undertaking wildland firefighting and wildland firefighter training. The chapter is primarily structured to show a general trajectory of being and becoming a wildland firefighter.

#### CONCEPTUALIZING RISK AND TRUST

When wildland firefighters face risk, they address it by drawing on knowledge as described previously (Chapter 3). The interplay of risk and knowledge enable wildland firefighters to trust their individual selves and their counterparts. To integrate knowledge, trust, and risk, wildland firefighters develop assessments related to the situation, which include the self and others. The assessment plays a role in addressing risk and successfully undertaking the job of managing wildland fire.

Self-confidence, behavioral trust, wholehearted trust, and mutual trust are core concepts I use in this chapter to make sense of how wildland firefighters can experience risk. Every moment of wildland firefighting features the interplay of these types of trust in some combination. I therefore consider that trust is a fundamental basis of social action (Simmel [1911/1919] 1959). The types of trust are connected and have their own features. How people relate to the types of trust changes with time. In the process of being and becoming a wildland firefighter, how risk is experienced alters with changes in how people relate to each type of trust.

### *Risk*

Herein, I consider that risk is that which poses some amount of danger to the self. I consider that all human activity involves some amount of risk. Risk changes the self and in some instances potentially ends the self. What the individual loses and gains by risk taking may be considered physical, financial, social, or spiritual, or any arrangement of them (amended from Goffman (1967b) and Simmel ([1911/1919] 1959)). I consider that because every moment of life involves some amount of newness resulting from changes from moment to moment, every moment involves some amount of danger to the self. I consider that risk is shared when people are exposed to danger together (amended from Goffman (1967b) and Tulloch and Lupton (2003)). The concept of shared risk infers that people can bear different amounts of risk and a person can bear much of another person's risk. In addition, similar to Hunt (1995), I consider that groups of people can exhibit normal risk taking behaviors. Normal risk refers to a collection of each group member's approach to risk, which informs group understandings of acceptable action. Such understandings are constantly changing (p. 158). Hunt suggests that normal risk involves

“practices that specific persons on specific occasions formulate as necessary, appropriate, reasonable, or understandable” (p. 144). Violating what is understood as acceptable action can result in condemnation or praise.

I consider that risk can be increased, decreased, concealed, revealed, and anticipatorily transformed in any moment. Risk is increased when danger to the self is increased; decreased, when danger to the self is decreased; concealed, when danger to the self is unknown; revealed, when danger to the self is known; and, anticipatorily transformed when danger to the self is anticipated in some way but is transformed to appear as something that is more or less controllable. For example, for a new wildland firefighter who is making sense of a remarkably intense wildfire for the first time, risk in one instant may be increased and concealed because the situation is highly new; decreased and revealed because the situation is synthesized and has changed the self; and, anticipatorily transformed because what has been synthesized is changing and informing what is being synthesized. In this chapter, using these understandings of risk, I focus more attention on general trends of risk taking of greater duration in which there are many wildland firefighters. Within these terms, I also focus on wildland firefighters’ perceptions of risk and their accompanying emotions. For example, for the same wildland firefighter, but for the first 20 minutes of the remarkably intense wildfire, risk may be increased because the wildland firefighter is in a situation with little knowledge of others; decreased, because the wildland firefighter may be with people who are often capable of dealing with similar wildfires and who possess much knowledge of dealing with similar wildfires; concealed, because the wildland firefighter may not fully understand what people in the situation are doing; and revealed, because the people in the situation are

showing the wildland firefighter some knowledge about managing wildfire. Generally, however, risk may be concealed for the wildland firefighter during the experience and the wildland firefighter may anticipatorily transform risk by greatly relying on people in the situation.

### *Trust*

An understanding of self-confidence, behavioral trust, wholehearted trust, and mutual trust, which are concepts of trust involved in self-construction processes, can complement an analysis of risk taking experience. In the subsections to come, I suggest that behavioral trust and wholehearted trust are parts of self-confidence, and that self-confidence is a part of mutual trust. With time and action, risk is addressed and experienced, and people change in association with these concepts of trust. Similar to Simmel's ideas on "the center" and "the inside", I consider that the self is the culmination of everything one spiritually has from one's entire life (Simmel [1911/1919] 1959: 243)). It includes all knowledge one has: theoretical knowledge and tacit knowledge. It also includes every judgment, ability, drive, habit, emotion, desire, belief, perception, assessment, and memory one has. I consider that one can be variously aware of parts of the self, one can reshape parts of the self in memory and experience, and one can forget parts of the self. The self adds to, but is influenced by, culture. Culture is the historical and ongoing culmination of people's entire lives. It includes all knowledge created by people. Similar to the self, people can be variously aware of culture. People can reshape parts of culture in memory and experience and can forget parts of culture. The self and culture are entities of life. They change with time and action in association with self-confidence, behavioral trust, wholehearted trust, and mutual trust.

*Self-confidence.*<sup>18</sup> Self-confidence involves confidence, in the present moment, in one's own perception of one's own abilities, judgments, and knowledge, despite that one may not be necessarily focusing on their abilities, judgments, and knowledge. One has actual abilities and knowledge in the present moment. These influence the development of one's own perception, but they cannot be entirely known. Ability refers to what one can do. Judgment refers to one's opinion and belief about any entity. Knowledge refers to one's understandings and skills acquired by experience. One's abilities and judgments are connected to one's knowledge.

One's own perception includes an understanding of entities that are external to one's body, including an understanding of what one can do in relation to them. One's actual self in relation to its actual external situation, which cannot be entirely known, influences the development of one's own perception. The extent to which one's own perception is accurate in comparison to one's actual self in relation to its actual external situation varies. The accuracy of one's assessment, the assessment, and one's actual self in relation to its actual external situation constitute the entire situation of the immediate present. Each component changes with time and action. Normal risk; inhalation, ingestion, injection, or absorption of substances which cause physiological changes; and, physiological state (e.g., fatigue level, hydration level, color blindness, visual acuity, hearing, emotion, and sickness) can influence one's assessment.

When one makes an assessment, level of confidence, goodness of fit, and types of fit come into play. Level of confidence refers to how much confidence one has in one's own perception. One can have different levels of confidence in parts of one's own

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<sup>18</sup> One's assessment, one's own perception, and one's self-perception are synonymous.

perception. It seems that usually people are highly confident in their self-perceptions. Goodness of fit refers to the accuracy of one's own perception in comparison to one's actual self in relation to its actual external situation. Types of fit refers to the incalculable number of experiences that involve one's own perception and one's actual self in relation to its actual external situation. Through experience people create knowledge and change. When people focus on the past or the immediate present, they can recognize that their self-perceptions were somehow inaccurate.

The following are six examples of types of fit I developed from literature I read for this thesis and interview data. First, one perceives: 'I am lousy at my job in comparison to them.' The person has great confidence in the self-perception. One's actual self in relation to its actual external situation is: 'You are lousy at your job in comparison to them.' Therefore, one's own perception is a very good fit and a very accurate assessment. The consequences of the perception are innumerable. One may try to work to be like them, may pretend to be like them, and so forth. Second, one perceives: 'I can stop the fire at the trail with fire.' The person has great confidence in the self-perception. One's actual self in relation to its actual external situation is: 'You absolutely cannot stop the fire at the trial with fire.' Therefore, one's own perception is a very bad fit and a very inaccurate assessment. Third, one perceives: 'I think we can stop the fire here if we build a sprinklerline, but I'm a bit unsure.' The person has somewhat great confidence in the self-perception, but the confidence is a little unstable. How stable the confidence is depends on how certain one is about something. Moments of distinct, personal instability can be of different durations. They can inspire plans for future action through which people may become more confident and confidence may become more stable. Situations

that seem highly unpredictable and unknown can prompt people to experience moments when their confidence in their own perceptions is distinctly unstable (Simmel [1911/1919] 1959; Goffman 1967b). Nonetheless, in relation to the third example, one's actual self in relation to its actual external situation is: 'You can stop the fire here if you build a sprinkler line, but you will just barely be able to.' Therefore, one's own perception is a good fit and an accurate assessment. Fourth, one perceives: 'We can build the fireguard by 13:00. The fireguard will stop the fire.' The person has great confidence in the self-perception. One's actual self in relation to its actual external situation is: 'You can build the fireguard by 13:00. The fireguard will not stop the fire.' Therefore, one's own perception is a partially good fit and a partially accurate assessment. One's own perception also could be conceived of as an equivocal fit and an equivocal assessment. Fifth, one perceives: 'We cannot do that. We cannot stop the fire.' The person has great confidence in the self-perception. One's actual self in relation to one's actual situation is: 'You can easily do that. You can easily stop the fire.' Therefore, one's own perception is a very bad fit and a very inaccurate assessment. Sixth, one perceives: 'We can build the fireguard by 12:00. But I'm unsure if it will stop the fire. Or we can construct a sprinklerline by 12:00. But I'm unsure if it will stop the fire.' The person has great confidence in the self-perception about group abilities, but equivocal confidence about group abilities to successfully achieve a group goal. Confidence in the latter is somewhat unstable. One's actual self in relation to one's actual external situation is: 'You can do all those plans as a group.' However, regarding stopping the fire, one's actual self in relation to one's actual external situation may be, for example: 'Group abilities in practice will absolutely not achieve the group goal;' 'Group abilities in practice will absolutely

achieve the group goal;' or, 'Group abilities in practice will achieve the group goal, but you will just barely be able to.' Therefore, part of one's own perception about group abilities is a good fit and accurate assessment, but part of one's own perception about achieving a group goal is an equivocal fit and equivocal assessment. Overall, one's own perception is a partially good fit and a partially accurate assessment.<sup>19</sup>

Self-perceptions are connected to emotions people can and do experience. For example, related to Hooker and Csikszentmihalyi (2003), people can assess that the challenges of their immediate situations exceed their abilities. They may be and become frustrated, anxious, and overwhelmed by the situations (p. 9). Similarly, related to Goffman (1967b), people can assess their immediate situations and perceive personal crisis, or conceive of potential personal crisis. They may sense danger to the self and feel stress to perform. This can inspire many different emotions. Presumably, in accordance with Goffman's oeuvre, if they later perceive that they did not successfully meet certain requirements of the situation, they can experience embarrassment and shame.

*Behavioral trust.* Behavioral trust is a part of self-confidence in that it involves confidence in one's own perception of one's own knowledge and judgments about any entity, such as another person, a group, an organization, or wildland fire. In this section, I focus on behavioral trust regarding another person. Simmel ([1917] 1950) provides useful

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<sup>19</sup> While some people might consider that this framework and these examples are bases for blaming individuals, I consider that they largely question blame. First, if we accept that self-perception can never be entirely accurate because one's actual self in relation to one's actual external situation can never be fully known, then blame is questioned. Second, as these examples show, one can never have total control. Third, self-perceptions are variously accurate, and parts can be very accurate. Fourth, the second, fifth, and sixth examples potentially show that people may lack much knowledge of what they are doing.

ideas for conceptualizing behavioral trust in writing about a “form of knowledge about a human being, namely, confidence in him” (p. 318).

Confidence, evidently, is one of the most important synthetic forces within society. As a hypothesis regarding future behavior, a hypothesis certain enough to serve as a basis for practical conduct, confidence is intermediate between knowledge and ignorance about a man. The person who knows completely need not trust; while the person who knows nothing can, on no rational grounds, afford even confidence. Epochs, fields of interest, and individuals differ, characteristically, by the measures of knowledge and ignorance which must mix in order that the single, practical decision based on confidence arise. (P. 318-319)

Through experience, one creates knowledge about the usual behaviors that another person exhibits. One can create knowledge by observing another person, communicating with third parties, drawing on previously created knowledge about different people who were in similar positions as the person, or various combinations of these mediums. Regardless of how knowledge is created, it influences one’s ideas and feelings about the future conduct of the other person and one’s conduct with the other person. Such knowledge is never wholly accurate. With time and action, one’s own knowledge and judgments about another person, and one’s level of confidence in one’s own knowledge and judgments changes through experience. The level of confidence one has in another person is related to the level of certainty one has about one’s own knowledge and judgments about the other person. Peoples’ assessments of others, especially parts of their assessments, can be more accurate than the others’ own assessments of themselves.

Behavioral trust is sometimes associated with human behaviors that groups of people appear to value. Blending Simmel’s ([1911/1919] 1959) suggestion that when individuals join groups of people they become culturally similar to them with experience, and Goffman’s (1967b) suggestion that groups of people can value human capacities and human codes of conduct, I suggest that individuals can join groups and come very close

to sharing: values; reasons for evaluating values; the importance given to specific values; and, specific combinations of values. Values can be about human behaviors. Group members can therefore create knowledge about other group members from their similarly shared values about human behaviors. They may wholeheartedly trust their knowledge.

*Wholehearted trust.* Wholehearted trust is a part of self-confidence. It involves the appearance and sense of total confidence in one's own perception of one's own knowledge and judgment about any entity. It involves trusting something, even though people may not be fully aware of what they are trusting. There are two variants of wholehearted trust. The first directly involves the ease with which people would honestly say that they trust something. For example, if one easily and honestly proclaims, 'I trust this person to manage wildland fire with me,' the proclamation might show one's wholehearted trust in one's own knowledge about another person, oneself, and managing wildland fire. Context is a significant part of the first variant of wholehearted trust. For example, one may easily and honestly proclaim to trust another person to manage wildland fire, but not easily and honestly proclaim to trust another person to manage one's own money.

It is important to understand that one can trust entities of an entity. For example, one may not easily and honestly proclaim to trust another person to manage wildland fire, but may easily and honestly proclaim to trust that the person will be capable of completing a particular task.

The ability to easily and honestly proclaim trust in an entity can strengthen and weaken. Namely, what was once wholehearted trust can change with time and action. Entity infractions can weaken one's sense of wholehearted trust. They occur when one

perceives that an entity has behaved ‘badly’ or ‘abnormally.’ Sometimes, the ease with which proclaiming to trust an entity can seemingly become so weakened that people sense their trust in the entity is irreparable. Sometimes wholehearted trust in the entity may never be experienced again. Sometimes people pardon the entity’s behavior. Pardons seem to depend on the severity, type, and context of the entity infraction. Even by pardons, however, there may be an inability to wholly trust the entity again. This influences how one later experiences life.

The second variant of wholehearted trust is connected to the limits of one’s focus. It involves the appearance of total confidence in entities that evade one’s focus in the present moment. It seems fundamental to human experience and something that greatly gets people through life. In all situations, people appear to wholeheartedly trust so much of life that evades their focus. They may individually concentrate on relevant information and stimuli to complete tasks (Hooker and Csikszentmahalyi 2003), for example, and appear to wholeheartedly trust the ground they stand on, the air in their lungs, their knowledge, their habits, something unknown, and so on, without reflection. Upon reflection, as examples of the first variant of wholehearted trust suggest, one can deny wholehearted trust. This later influences how one experiences life. It can greatly influence mutual trust.

*Mutual trust.* Mutual trust is founded on innumerable mixtures of self-confidence that occur in situations in which people depend on one another to complete a task. Among three people who must work together to manage wildland fire successfully, for example, one may wholeheartedly trust one’s own perception of the two other’s abilities and knowledge to put fire to the ground with drip torches when and where they are told,

and the two others may wholeheartedly trust their own assessments of the person's abilities, judgments, and knowledge who is directing them to put fire to the ground. Because self-confidence changes with time and action, mutual trust changes with time and action.

These concepts of trust and risk play out in the practice of managing wildland fire. They have been developed from the thesis data and literature. How they play out in managing wildland fire will now be illustrated.

## RISK, KNOWLEDGE AND TRUST: FINDINGS FROM THE DATA

### *Undertaking Wildland Firefighting and Training*

The interplay of self-confidence, behavioral trust, wholehearted trust, and mutual trust is involved in undertaking wildland firefighting and wildland firefighter training. As suggested in Chapter 6, some people may wholeheartedly trust WFMB before they apply to undertake wildland firefighting at WFMB. Presumably, by applying for the job, many people show great confidence in their own perceptions of WFMB, though they may not be highly aware of this when they apply. Some people, however, may have created knowledge about the organization by third parties, or know something about the general politics involved in similar organizations, and undertake wildland firefighting with a noticeable degree of unstable confidence about WFMB. Despite one's confidence level, there is a mixture of mutual trust between the individual and the organization when WFMB undertakes a new wildland firefighter. If one accepts an offer to work as a wildland firefighter, their confidence in the organization can more drastically change as they learn more about the world they have entered (Goffman 1967b).

*Early career knowledge development.* Often, within their first three weeks of work, wildland firefighters attend ‘new hire training’ where they learn the basics of the organization and managing wildland fire. Nowadays, new hire training introduces wildland firefighters to the incident command system, the workplace hazardous materials information system, transportation of dangerous goods, safety responsibilities, personal health and wellness, fire behavior and suppression, fireline safety, firefighting equipment and strategies, ignition operations, helicopters, airtankers, radios, orienteering, survival skills, and WFMB policies and procedures.<sup>20</sup> Most of new hire training is dedicated to teaching wildland firefighters how to avoid physical danger by doing their job safely. Consequences of emphasizing this message are visible in Blake’s recollections of new hire training.

We learned about basic fire behavior, the surrounding environment, how to attack a fire safely, and just like the elements around it, like all of the different aspects of firefighting, helicopter safety, and how to use a radio, how to use a chainsaw, just a whole bunch of different courses.

Our biggest concern is our own safety and public safety. If we jeopardize either one of them, we probably didn’t do a certain procedure. So it’s kind of like helicopter safety, it’s like the do’s and the don’ts and how to get in and out of a helicopter, and when you’re in there, what to do and how to always be buckled up and have all your gear in certain places, strictly for weight purposes—or the gas, it has to be in the tailboom of the helicopter. And for fire safety, just the do’s and don’ts of where to put crews, how to work safely around fire itself, whether that’s with hand tools or a pump or if we’re just walking through the bush, whatever it may be, just all like the do’s and don’ts really.

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<sup>20</sup> Every fire management agency affiliated with CIFFC delivers similar training to newly hired Type 1 Fire Fighters. CIFFC is currently creating national training standards, assessments, and courses for fire management agencies in Canada. The Type 1 Crew Member training standard and assessment were implemented in 2015. The Type 1 Crew Leader training standard and assessment were implemented in 2017. The WFMB Type 1 Crew Member course preceding the CIFFC Type 1 Crew Member course (version 3) that WFMB implemented is very similar to the CIFFC Type 1 Crew Member course (version 3).

These passages suggest that wildland firefighters create some knowledge at new hire training about how to ‘properly’ do their job and the probable result of deviating from organizationally accepted practices. New hire training has a theoretical component and a practical component. For this reason, wildland firefighters leave the training with some theoretical knowledge and tacit knowledge.<sup>21</sup> The passages also suggest that wildland firefighters create local knowledge (e.g., how to work safely around fire itself), language knowledge (e.g., ‘fire behavior’), perspective knowledge (e.g., ‘how to attack fire safely’), and facility knowledge (e.g., ‘helicopter,’ ‘radio,’ ‘chainsaw’) at new hire training (see Chapter 3). The perspective knowledge includes organizationally endorsed definitions of what is risky and how to address what is risky to achieve certain goals, two of which are personal and public safety. Lastly, the passages suggest that the view that managing wildland fire can be safe when it is done correctly is variously impressed in wildland firefighters at new hire training. WFMB assumes and endorses this view.

Although some parts of wildland firefighter training may consequently increase and conceal risk (Desmond 2007), others can decrease and reveal risk. Decreasing and revealing risk was a training goal at WFMB. The organization’s ultimate value was to ensure the safety of human life. Its members similarly shared the value, but did not all agree on the best way to achieve it.

*Early stage career considerations of safety in risk situations.* After new hire training, wildland firefighters create some amount of knowledge by additional formal training (see Chapter 3). The theme of safety structures most WFMB training courses and

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<sup>21</sup> In this thesis, I distinguish theoretical knowledge and tacit knowledge that people acquire in new hire training and elsewhere by mock exercises such as setting up and starting power pumps, from theoretical knowledge and tacit knowledge that people acquire by situations which involve directly managing wildland fire.

partly influences wildland firefighters to trust the organization. The following passage by Kendall details these ideas.

There's lots of safety involvement. That's a good thing about this company though. They do a lot of courses. Like before you can even touch a chainsaw, right, they send you through a three to four day course.

When these words were spoken, Kendall had been a wildland firefighter only for several months. The passage suggests that the safety message WFMB endorses partly influences wildland firefighters to trust the organization. Presumably, very new wildland firefighters may easily and honestly proclaim to have great confidence in their own perceptions of WFMB's behaviors about safety because they have not created much knowledge about the organization or managing wildland fire.

The next passage, spoken in Quinn's fourth fire season, suggests that confidence in one's own perception of WFMB's formal training can influence wildland firefighters to feel confidence in themselves and their counterparts. It should be noted that although WFMB endorses certain practices in formal training, it draws on many external entities, like the Canadian Forest Fire Danger Rating System, to help establish what it endorses.

I feel confident every time I go to a fire that I'm trained enough and that the majority of the people I'm surrounded with are trained and experienced enough to know what is safe, when it's safe.

This passage indicates that Quinn's confidence in various entities (perceptions of self, other wildland firefighters, and WFMB) influences Quinn to anticipatorily transform risk to appear controllable.

Every wildland firefighter in this thesis, 'young' and 'old', 'new' and 'veteran', 'green' and 'expert', which are terms many wildland firefighters use to distinguish who is less or more experienced, considered that their job included potential physical danger, but

that some of it could be controlled when correct practices were followed. Consequently, they anticipatorily transformed risk to appear controllable, and considered that their job was dangerous but safe. To plausible extents, they complied with knowledge they acquired in training courses, thereby displaying confidence in parts of the organization. Training never entirely reflected the ephemeral and situational circumstances of life, however, and wildland firefighters learned and created knowledge ‘in the field’ that was not covered in formal training.

Nonetheless, as the next passage from Lane suggests, additional factors can contribute to wildland firefighters considering that their job is safe. The passage was exchanged at Lane’s second fire.

But she [(Lane’s mother)] was like, even when coming out to this fire, ‘Oh, you have to wear all your protective equipment and just do what people tell you’. And she gets worried about safety. But I always try to explain to her why I think it’s always safe.

*Why do you think it’s safe?*

From what I’ve heard from everyone in fire, or not everyone in fire, but a lot of people have always told me, ‘In Canadian firefighting, safety is the number one priority. Life is first. It’s always first. If you’re put in a compromising position, we will go back and we will find out why you were in a compromising position or what happened’. And that’s something you have to respect because a lot of organizations, while that may be one of their main goals, they don’t voice it as much as this one does, and I quite like that because a lot of people say ‘Oh that’s dangerous’ and I say ‘You know what, life is the first priority in Canadian firefighting, so I’m not really worried about it’.

Lane’s passages suggest that risks are shared among family members and that family members may influence how wildland firefighters experience risk (Tulloch and Lupton 2003). The passages indicate that parents sometimes pressure their children to trust wildland firefighters and that very new wildland firefighters sometimes listen to their coworkers about organizational processes and anticipatorily transform risk to appear

controllable based on what they hear. Through the passages, Lane suggests that the frequency of WFMB and its' members communicating their ultimate value can make wildland firefighters feel comfortable with the idea that risk is part of their job. Relatedly, Lane alludes that wildland firefighters sometimes create knowledge by blending organizational policy with WFMB's ultimate value. In WFMB policy, the order of priority for managing wildland fire is: wildland fire threatening human life, communities, major public infrastructure, commercial timber, and remote properties (GOS 2016d). Separate WFMB policy covers initiating and conducting 'accident investigations' and reporting 'workplace incidents'. It appears that Lane blends WFMB policies with ideas about safety, and as a very new wildland firefighter, wholeheartedly trusts the organization fast, including its ability to act in good faith if investigations are conducted. Thus, Lane seems to trust the organization in the present moment as well as its potential future behaviors.

*Developing knowledge further: Experienced wildland firefighters teach new firefighters on the job.* After wildland firefighters complete new hire training, they begin to create knowledge in the field. The completion of new hire training means that wildland firefighters are permitted to work on any fire in the capacity of Type 1 Crew Member as directed by their superiors. Firebase bosses typically position very new firefighters alongside those with more experience to increase the likelihood of human safety and to encourage teaching and learning. Sometimes firebase bosses and others attempt to position very new wildland firefighters near less intense fire so that they gradually gain experience. Similarly, sometimes WFMB workers attempt to position those with less experience in less complex situations so that they gradually gain experience. The most

experienced Type 1 Fire Fighters, who are typically crew leaders, are organizationally expected to teach and ensure the safety of newer wildland firefighters. These expectations are partly informed by labor legislation.

*First fires: Emotion, risk, and knowledge.* The next series of passages feature the social processes of teaching and learning among wildland firefighters in the field. The first passages are about Blake's first fire.

My first wildfire was on [Balsam Fir Reserve] and it was a pretty small fire. It was a nice day outside—a grass fire that was kind of in the bushes. When we showed up, we were all unpacking and stuff, and we got the hose out, and I was the guy on the hose. Everything was going good for a little bit, but the wind picked up and switched directions and the fire came around behind me. I think it was [crew leader name] that was kind of just not really caught by surprise, but we were just like whoa, kind of thrown off that it came around us without paying attention. We weren't really caught of guard or anything, but it was a little tense situation for a couple seconds, at least on my first fire. But other than that, it went pretty well. I think that day we actually ended up having three fires but the first one was just a small little one.

*How did you feel at the fire?*

There were tons of different mixed emotions. Just kind of listening to the guys in the truck, all the older guys and wondering what they had to say and what they were talking about. They were all kind of giving us a heads up on what to expect, and reminding us about what's going to happen, so when we got there, and out of the truck, it wasn't like a panic at all. It was really calm. Like even though like, it felt like my heart was going a mile a minute, at the same time I felt totally calm, because they talked us all the way through it. It was like, okay, we are going to do this, and then grab the hose bags, and then grab the hoses, and we got the pump going, and then—so as soon as we got there, that's exactly what they said to us. So it was just like: bang bang bang. There was a lot of mixed emotions but because of the people around us, it made it very easy to cope with the situation and to deal with it properly I guess.

Blake's passages suggest that wildland firefighters transfer and create theoretical knowledge and tacit knowledge when they manage wildland fires. The first passage is greatly centered on Blake creating local knowledge. At the fire, Blake seems to have created local knowledge about identifiable types of vegetation burning at a specific

location. Connected to this knowledge, Blake seems to have created perspective knowledge and facility knowledge about the equipment wildland firefighters can use to manage wildland fire at the location. Blake may have also created language knowledge about landmarks near the fires (e.g., 'Balsam Fir Reserve').

Blake's second passage suggest that in highly new, unknown, and unpredictable situations for very new wildland firefighters, they are apt to wholeheartedly trust others who appear to know what they are doing. This appeared to be the case for every wildland firefighter in this thesis at their first wildland fires, even though many had not yet created much knowledge about the general behaviors of their counterparts. The second passage also suggests that confidence in one's own perceptions of others can inspire one to feel calm. Moreover, that Blake created perspective knowledge about managing wildland fire properly, which presumably involved learning something about normal risk among the wildland firefighters in the situation.

Similar to how every wildland firefighter in this thesis seems to have generally experienced risk during their first wildland fires, the second passage appears to show that risk for Blake was generally increased and concealed during the wildland fire situation because much of the situation was new and unknown; decreased and revealed, because the other wildland firefighters transferred knowledge about themselves and managing wildland fire to Blake and presumably had some knowledge of managing wildland fire; and, anticipatorily transformed, because the other wildland firefighters discussed how the situation would be managed and controlled, and their plan was implemented with Blake's abiding trust.

The next passages about Lane's first wildland fire shows a very similar experience of risk.

My first fire was really actually unexpected. We had really weird weather and it was June and it was super dry and everybody was saying how dry it was and how weird it was. We only had about six firefighters on and two were sent out to this fire and then they couldn't find it, so they sent us out. I got there, and I was honestly a little bit stunned because no one was worried. I thought it was a big fire and it wasn't really. It was less than, probably, a tenth of a hectare, not even. But it was a fire, and they were reacting to it, but they weren't super reacting, like jumping. They were like, 'Oh yeah, we should put this out, start the pump up', and I mean, it was really good. It was a really good introduction to fire. To just have a fire to watch what everybody did. And, you know, I had to stand there a little bit stupidly for a while, but eventually I got a role and got to understand what was going on. But it was a nice first fire just to understand, 'Okay, this is what we sort of do. We get out, we do this, we do that'.

*How did you feel when you were dispatched to the fire?*

I was excited and nervous at the same time. I didn't know what to expect. I'd never—I didn't even know where we were going for the fire or what was happening really. They just said, 'Get in the truck and get your stuff.' So I guess I was, yeah, mainly just nervous and excited but I really just knew that wherever we were going I could trust the guys to make sure I was okay or that I had something to do. So I wasn't worried, I was just nervous because it was something new.

*Why did you trust the guys?*

Because of the way they accepted me into their group. They were very inclusive when I joined. There was no negative vibes. If anything, there was some neutral ones, but most of the time it was very positive, very like, 'Oh, come here we're doing this', 'Oh, come here we're doing that', and nothing, you know, you didn't really feel left out. It was a really big thing because that's something that happens all of the time and is always going to be a problem in the workplace. And they had no reason to be nice to me. So, they were fantastic.

*Okay. What did you mean by neutral vibes?*

I think it was partly because we were on different shifts and they didn't really know how to react to me because they didn't know me, and I didn't know them, and I can be very quiet before I meet people and not say anything. So I tend to come off as very standoffish. So it doesn't usually bother me that much because I don't know what to say to them, and they don't know what to say to me. So I guess neutral just because I haven't gotten to know them yet.

Like Blake's passages, Lane's passages show that very new wildland firefighters create local knowledge, perspective knowledge, facility knowledge, and language knowledge at their first wildland fires. Through their experiences, they apply theoretical knowledge and tacit knowledge, but for the first time create these types of knowledge in situations with wildland fire. The passages suggest that Lane created local knowledge with others about the fire's location, which included information about time of year and abnormal weather. With time, wildland firefighters can create much knowledge about the landscapes in which they are assigned to manage wildland fire. Although some people undertake wildland firefighting with more local knowledge than others, every wildland firefighter creates additional knowledge with time. The passages also suggest that Lane created perspective knowledge about extinguishing fire, equipment knowledge about pumps and trucks, and language knowledge about wildland fire sizes.

Lane and Blake's passages show that wildland firefighters sometimes suggest they experience mixed emotions at their first fires. Wildland firefighters in this thesis used the following words to describe how they felt at their first fires: calm, excited, nervous, hesitant, good, liberated, relaxed, and scared. Many said that they felt effects of adrenaline. It appears that Lane's lack of knowledge and ability to make judgments about the future, which possibly inspired a sense of unstable personal confidence, greatly influenced the emotions Lane proclaimed to experience. It seems that Lane's overall confidence, however, was mostly stabilized by Lane's great confidence in a personal perception of others' knowledge, judgments, and abilities. Lane seems to have generally wholeheartedly trusted personal perceptions of the other wildland firefighters.

The unpredictability and newness of the wildland fire situation for Lane; Lane's lack of knowledge about what was happening and would happen, which seems to have substantially limited Lane's focus to the immediate present; and Lane's wholehearted trust in many entities, including that in a perception of personal knowledge about others' behaviors, suggest that Lane's first wildland fire was to some extent adventurous (Simmel [1911/1919] 1959). Every story I heard in interviews about wildland firefighters' first fires included similar themes and suggested that the experiences were to some extent adventurous. Moreover, similar to others' passages, Blake's and Lane's passages showed, that in retrospect, many wildland firefighters made sense of fires they had managed in stages: 'bang bang bang'; 'we get out, we do this, we do that.' Though the context of wildland fires are perceptibly different in some way, wildland firefighters eventually compared fires, seeing patterns, routines, similarities, and differences in them.

At their first fires, Lane and Blake, as well as most wildland firefighters in this thesis, experienced risk very similarly. It appears that risk for Lane was generally increased and concealed during the wildland fire situation because much of the situation was new and unknown; decreased and revealed, because the other wildland firefighters transferred knowledge about themselves and managing wildland fire to Lane and presumably had some knowledge of managing wildland fire; and, anticipatorily transformed, because Lane seems to have sensed risk in some way but transformed it to appear controllable by greatly relying on the wildland firefighters.

*Later fires: Further development.* As very new wildland firefighters continue to learn in the field, they come to rely on and use their own experience managing wildland fire more. This is suggested in the next passage about Lane's second fire.

*When we first arrived at this fire, how did it make you feel?*

I was excited, and I'm not a person that actually gets very excited about anything, and I was actually excited to go do something. I was really, partly excited, because I'd never been this far north before, so I guess that added into it. But to go to this fire and see what a big fire looked like and what you did with a big fire, I was really excited about getting the experience and the knowledge behind me I guess. That was really what stuck in my mind the most.

*Can you talk a bit about the fire and what you've learned?*

Oh gosh, I learned a lot about the fire. I got to see the incident command system in play, which was good. I got to see how you could react to a fire, what things could go wrong, values protection—what we were doing. There was just so much to learn. I learned about, I knew how to start a pump, I knew how to troubleshoot it, but I didn't know what you had to do when you had to get that pump to work and you had to make it work, because there was no other option; there was no replacement pump, you had to make it work. So things like that, just gaining that knowledge. Or even, I'd never really dealt with a proper hot spot before, so it's like, 'What do you do? Do you?' You know? Or dealing with hoses all the time, because at [Jack Pine Fire Base] we just use the hoses off the truck and that's usually just one hose that you pull off the wheel, then you just roll it back up and you're good to go. It doesn't matter. And this was actually dragging hoses around and lining them up and learning about a fireline and following the ridges and—it was so much information at once to shove in, but I'm so happy I got to go to this big fire and get this background knowledge so that if I do go to another fire, I will have a better idea of what's going on, what people are going to want to do, and how I can help. Here I was lucky because the guys—everybody knew that I was new, so they were more than willing to be like, 'Alright, this is what we're going to do, and we're going to go and do this,' you know. So, it was nice, it was a good way to learn a lot of things at once I guess.

*Did you learn anything new about how your body interacts with the environment around you?*

With fire, it's, I think it made me more aware. It just, because you just never know, it makes you more aware of the wind shifts, where you are, what you're doing, where other people are. I think, it just, it made me more aware of things and what can change and what little things to watch for, like snag trees. I'd watched for snag trees before, but I don't think I've ever watched for snag trees as much as I did on this fire and just being aware of the different dangers and how I could avoid them and where I could be safe, almost at all times—even when it was most likely completely safe. I actually feel I have a better awareness of where I am and what I'm doing and what's around me. I'd like to think that before I had, but I think this gave me a new level of it because you just—there's always the uncontrollable element somewhere.

These passages illustrate a very new wildland firefighter creating knowledge with others about managing wildland fire. They show a very new wildland firefighter starting to gain, understand, and apply facility knowledge, local knowledge, language knowledge, and perspective knowledge. They show a very new wildland firefighter becoming similar to other wildland firefighters and more able to rely on and use their personal experience managing wildland fire.

With time, as the next passage by Casey suggests, wildland firefighters generally become more able to provide input into group decisions as they gain personal experience managing wildland fire.

*Since your first fire has the feeling changed when you go to initial attack fire?*

I'm more like—I have more knowledge towards it so I'm not listening as much. I can say my opinion more to try and benefit. Where before I didn't know, so you just did what everyone else told you to, where now it's kind of like, 'Ah, no that's probably not the best idea, we should consider going somewhere else,' where you can decide.

Although the wildland firefighters in this thesis came to rely on and use their personal knowledge, abilities, and judgments more, they still greatly and often relied on and used those of others, which was generally needed to achieve group goals. I return to this discussion after showing interview data about reasons for why some wildland firefighters taught their counterparts, what some wildland firefighters taught their counterparts, and how some wildland firefighters changed with time through learning from their counterparts.

*On-going wildland knowledge development: Simultaneous teaching and learning to safely address risk.* All wildland firefighters in this thesis taught and learned simultaneously from one another and created knowledge together, although they tended

to teach in distinctly different amounts about managing wildland fire based on their levels of experience. Inevitably, many wildland firefighters eventually found themselves in positions where they were expected more to teach others. Some wildland firefighters enjoyed, were much better at, and took much more initiative in teaching their counterparts than others.

The following passage suggests some of Evan's reasons for teaching wildland firefighters.

I like to show people how to do things, you know. People that don't have that much experience or whatever, because I was never taught that way or whatever, you know. It was always, 'Here's what you got to do.' And even though they don't really know, like you ask questions sometimes and people laugh or whatever, 'Well, you got to learn on your own' or whatever. But I like to teach, you know, because it makes my job easier. Like I'll show them once and they'll just continue doing it on that same fire, the same way, instead of me kind of watching them screw up here and there and whatever. Like, some people are kind of shy to ask questions, they don't want to ask questions because they don't want to look stupid or whatever. But I think that's the best way to do it. Like ask: 'How do I do this?' And then it makes my job easier. That's how I've always done it. I've always liked to make everybody's job easier. Then everybody's happy and even if I have to work a little extra harder and put up with a little extra bullshit, like, it's better for everybody in the end. It's easier.

Through this passage, Evan suggests two main reasons for teaching newer wildland firefighters how to do their job. Firstly, it makes people happy. Secondly, it makes every person's work easier. The passage indicates that taking great initiative to directly teach newer wildland firefighters can make them improve faster than leaving them to learn on their own with little help from others. It appears that the passage features something similar to Ross' (2009) assertions about female wildland firefighters in supervisor capacities using their own detrimental experiences to employ techniques that reduce anxiety, frustration, and self-doubt among the wildland firefighters they supervise. Similar to Ross' assertions, the passage suggests that wildland firefighters sometimes use

memories of their personal experiences to positively (to them) influence their counterparts' experiences.

The next passages by Sydney suggest additional reasons why some wildland firefighters teach their newer counterparts. The passages also suggest what Sydney teaches newer counterparts and how wildland firefighters consequently change.

*You said that you liked to motivate people, to make them think about their job differently. How do you do that?*

Just by giving them more responsibility, more tasks to learn and more training, you know. Like I want them to be good firefighters so that they can take care of themselves out on the line and let them know that they can do it.

*Do you have a story that links with that?*

Examples? I've got a lot of examples. Like, every new guy that came into the program, I gave him all my attention and gave him everything I could. Every knowledgeable thing I know about firefighting, I try and put into them. And a lot of them use the stuff I taught them, and yeah, they came and told me later that it really helped them out.

*What do you teach them?*

Just like how to run a hose, how to spray it, how to work a hot spot, how to watch out for hazards and reading the weather. You know, some guys don't know topography or weather, that kind of stuff. And I try to just give them little hints and tips on what to look out for.

*What hazards do you tell them about?*

You know, like wind shifts and watching out for snags. Taking your time through the bush, not really rushing, so you don't slip and hurt yourself. That kind of stuff.

*Do you think when you try to motivate them you're successful?*

Most of the time, depending on the person's personality. Most people that come here want to learn and they want opportunities for responsibility, so, yeah, most of the time it works.

*What changes do you see afterwards?*

I just see, like, them knowing more and more about the job and not having to ask me, they already just—it just kicks in for them. Their training kicks in. My training that I taught them.

These passages suggest that Sydney actively attempts to transfer knowledge to newer wildland firefighters so that they can take care of themselves on the fireline and become more confident about their own abilities. Sydney seems to care greatly about everybody's personal safety. In the passages, Sydney indicates that transferring knowledge can develop newer wildland firefighters' abilities to avoid risk. Within these terms, the passages show that Sydney teaches newer wildland firefighters facility knowledge, language knowledge, local knowledge, and perspective knowledge. Conceptually, the perspective knowledge includes ideas about what is risky and how to avoid what is risky. Sydney alludes that most newer wildland firefighters adopt and wholeheartedly trust the transferred and created knowledge. For this reason, Sydney seems to influence newer wildland firefighters to assume a cultural perspective about acceptable action, the basis of normal risk. Presumably, the passages show that by teaching newer wildland firefighters about addressing risk, risk is revealed, decreased, and anticipatorily transformed to appear more controllable for them. Ultimately, the passages suggest that teaching newer wildland firefighters how to manage wildland fire can consequently mean that they come to rely on and use their own, personal knowledge, abilities, and judgments more, but generally in addition to, those of others. In some way, however, their own personal knowledge, abilities, and judgments are not their own. One's self is partly composed of others.

Despite that wildland firefighters come to rely more on their personal experience managing wildland fire, they still greatly rely on others' experience. This reliance is

normally needed to achieve group goals. Wildland firefighters in this thesis suggested that they could not do their job alone, that they were obliged to lookout for the personal safety of others and vice versa, and that there were unknown, uncontrollable, elements involved in managing wildland fire that every person had to try to anticipate to successfully meet group goals. The next passages suggest that older wildland firefighters in this thesis ordinarily taught newer wildland firefighters to use and develop their individual abilities, which could permit them to help work as team members to achieve group goals, one of which was ensuring safety. The passages additionally suggest that wildland firefighters rely on others' knowledge, abilities, and judgments. The following two passages by Casey are about the same situation, but were spoken at different times in an interview.

Once we started making the hoseline, I went ahead again, and [(another firefighter)] came with me. Then Evan called, because he asked us, we were able to tell him that there were flames below him so he could watch out, so it's not just about yourself. It's about everyone else around. And like, one thing Lane learned, she noticed smoke behind us, but she didn't say anything because she didn't know to say anything. So she thought, 'Oh, maybe it's just some other fire', and after she got back, it was like, 'Oh, you have to actually show us. Like, if you think something or you're wondering something, you're able to say it'.

When Evan was up on that hill and it was flaring up below him, I stayed there. I was going to go back down, but I stayed there for another ten minutes because I was watching. Like, is something going to happen. Like, I have to stay here to let him know. Like, this is not just a little pan fire. Trees are burning. It's going up hill. He's standing up the hill. He needs somebody to be watching for that. Like, we were able to tell the helicopter to start dropping buckets where he did, and it slowed down, which is perfect, but still, I wasn't just going to leave Evan hanging. He can't see down the hill, it's smoke. If there's smoke coming in his face, he couldn't tell. So just, other people have to think of everyone else, not just yourself sometimes.

Through the passages, Casey provides an example of wildland firefighters working together to address risk. The passages show an older wildland firefighter teaching a newer wildland firefighter to immediately voice perceived and anticipated risks to their

counterparts because the latter might not yet see them. This message is frequently and deeply impressed into wildland firefighters at WFMB.

But even when wildland firefighters immediately voice perceived and anticipated risks to their counterparts, their voices are sometimes silenced. The next passages from Reagan hints at what can happen when voices are muted.

My old crew leader, he got set down in black spruce in the muskeg. And basically their crew leader was, he was in a term position at that time, and basically figured he had a lot to prove kind of thing, and they never should've set down in that spot, and they all said it was a fucking bad idea, and they ended up basically just getting out. But I know at the time he told me about that he was pretty fucking wound up. Like it was before I started there, but yeah. I guess that one there was pretty nip and tuck. Like right after they lifted up pretty much, the pad they were at burnt over. And he was pretty freaking choked up when he told me about that. And he just about stroked the guy out later. He was pretty mad. But yeah, that was definitely a situation that could've been prevented.

*How did they survive?*

Basically just, all of a sudden the fire blew up, like it was small when they got there and by the time they set down and whatever, I think the chopper lifted up, saw the fire behavior and sat down and got everybody out of there and then they lifted off again, kind of thing. Like, I think the chopper is basically what, what got them out, because he was on top of it. As soon as he saw the fire behavior he pulled the pin.

*Why do you think your old crew leader told you about that?*

Because we were drinking, pretty much. We were drunk and he was feeling emotional I guess. I don't know. He was basically grooming me for his position I think is what it comes down to. Basically, anybody he worked with, he was trying to make think for themselves, like, it wasn't, 'This is the way it is, do it', it was like, 'Well, what do you think?' You know? I think that was kind of a part of it. Letting me know that's what happens when you fucking don't listen to other people, you end up in a situation like that.

Whether perceived and anticipated risks are voiced or not, whether people are looking out for themselves more than others or are looking out for others more than themselves, despite the situation, risk may overcome people. But it appears that human safety is most

often realized when people are working together to protect human life. The last passages suggest a situation in which human life was jeopardized because a person with greater decision-making power than others did not implement the others' advice. The passages indicate that storytelling among wildland firefighters can facilitate teaching and learning about risk and risk avoidance. In the last passage, Reagan suggests that the near-death story was possibly told by the crew leader to convey that wildland firefighters should listen to one another and address risk together, and that wildland firefighters who lead should develop their counterparts' abilities to address risk together.

Every crew leader in this thesis indicated that they sometimes rely on and request advice and assurances from other wildland firefighters about managing wildland fire. The next passages provide an example of how Mason's former crew leader sometimes used to ask crew members for advice in managing wildland fire and how Mason currently uses the practice as a crew leader.

*How has the way you view initial attacking fire changed from when you first started to now?*

Now it's a big difference, eh? You know pretty much what you're going to do when you get there, how you're going to react to a fire, and like differences in sizes from then to now. How can I put this—with all the training you get and stuff like that, you kind of figure what's going to happen to the fire. Usually in the helicopter anyway, you pick your safety zones, it's your call, you're not listening to nobody else, it's you, and you alone making that call pretty much. Sometimes you ask your men: 'What's a good idea? What's a good thing to do here?' And take all that into consideration and work with that. Maybe somebody knows more than you think they do. Hey, they could be helping you instead of hurting you. More minds are better than one.

*So you work as a team when you're initial attacking fires?*

Yeah, you want everybody's input in there a lot of times. If it's a little fire, you know what you're doing so take control of it and finish it off there. But if it's starting to get a little big—like, back a few years ago, working with [crew leader name] there, he asked everybody's opinion. We had our own. He listened to mine

once in a while, listened to [crew member's name]—when he was there. Sometimes somebody would say, 'Hey, there's a landing spot over there,' but he went to the one over there, but the better one was over here, somebody saw it anyway. [Adrian], he found a good spot and it helped us real aptly. It was a pretty hot area, we were trying to land, but we were going to try to put it out in one area, just to be safe. And he finds a spot out of nowhere. He points to the window, 'Hey,' so yeah, we went there. He was the new guy too. Hop out. Ready everybody. Everything counts.

*Do you work as a team with your current crew?*

Pretty much, yeah. Everybody has their own opinions. There are two guys that are still learning, but they do put a say in there when they have a chance. [Crew member name], he knows what he's doing, he's just quiet. He's pretty good too.

Mason's passages indicate that some wildland firefighters come to gain knowledge about managing wildland fire to an extent that they can imagine how to address new fires upon arriving at them and how they are going to react to fire. Through the passages, Mason hints that some wildland firefighters can come to gain degrees of knowledge that permit them to take total control of decision-making during initial attacks that they consider not that complex. Mason hints, however, that they share decision-making control, seeking and considering advice from others, as initial attacks become more complex. Presumably, Mason's former crew leader taught Mason something about sharing decision-making control.<sup>22</sup> Through the passages, Mason additionally indicates that although crew leaders sometimes ask crew members for help making decisions, crew leaders bare the most responsibility for the decisions. They are expected to ensure plans are developed and implemented.

Thus eventually wildland firefighters can find themselves in positions in which they are expected to teach and ensure the safety of newer wildland firefighters and to

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<sup>22</sup> Some crew leaders would ask crew members for advice and assurances, and let them take command with some guidance, allowing them to make decisions and implement plans, to gradually develop them.

ensure that plans are developed and implemented. The next passages by Mason suggest how crew leaders can be impacted by these expectations.

*How does it make you feel?*

Going to a fire?

*Yeah.*

I don't know. I feel good. Like if we can do a good job, nobody gets hurt, they go home, I feel good. But getting there and back is kind of what gets on your mind. I feel that the first twenty minutes is where, I think, if anything's going to happen, it's going to happen. If somebody's going to get hurt, then they're going to get hurt. It may be tripping or making a mistake with the helicopter, or landing, whatever, all that stuff. The first twenty minutes can be pretty hectic I think. You have to make sure your guys know what they're doing. If they're going to cut, make sure: 'hey, you know, it's all you, watch for leaners, or widowmakers.' In the heat of the moment, a lot of guys go out there and start cutting and don't even look because, 'hey, get this tree out of the way.' It's scary and exciting, but that's fine. Gets your adrenaline going.

*Okay, adrenaline's going and it's scary and exciting. Why is it scary? Do you always think it's scary? Or is it sometimes not very scary?*

I don't know. Like, when I always go to a fire, it's, there's potential of something happening. Not everything is going to go as smooth as in your mind. Hey, you want this guy to do this and that, but there's always something that comes up that could be potentially dangerous, you know. Everybody's got to watch. That's the scary part for me. The first twenty minutes. For me, it's going to make or break you pretty much. That's what I figure, that's the way I think. And I don't know about the other guys, I don't really ask them. We go for briefings and debriefings, but nobody's brought up anything. I don't think I did nothing bad yet.

*Are you scared for yourself or for others?*

For others. If I do something wrong, if I get hurt, then it's on me. If somebody gets hurt on my watch, it's my fault, you know. I should've warned them maybe. Or, did I give the right briefing? I'm thinking. I want nobody to get hurt. Nobody's ever been hurt on the little fires that we've been going to yet, so, so far so good.

*So as a crew leader you feel...*

I feel responsible for the teammates. I guess that's my job, I look after them, or try to make sure they're safe. That's all they ask from me I think, is, 'Make sure

we're safe, we'll do the job, look after us', kind of thing. 'If something's coming up, let us know.' That's what they've brought up before, which is a good point, 'We'll do the job, as long as you keep it safe.' But it's everybody's job to keep safe. I feel I'm responsible for them.

When these words were spoken, Mason was a crew leader for two wildland firefighters in their first fire seasons and a wildland firefighter who had done the job for more than 10 fire seasons. They suggest that crew leaders can feel greatly responsible for keeping their crew members safe. This can involve crew leaders making sure that every crew member at a fire knows what they are doing and the potential risks involved. In the passages, Mason seems aware that one's own assessment of one's actual self in relation to one's actual external situation cannot be wholly accurate. To deal with this, Mason suggests people need to lookout for one another's safety. Despite these views, in contemplating a hypothetical situation in which a person Mason is supervising is hurt, the passages suggest that Mason would personally take responsibility for the incident. Although Mason might not actually take much responsibility for such an incident, the hypothetical thinking demonstrates the pressure crew leaders and crew members can live with in terms of responsibility and WFMB's ultimate value.

In sum thus far, in the process of being and becoming a wildland firefighter, the interview data indicated that people in this thesis generally relied on and used others' personal knowledge, abilities, and judgments more than their own during their first wildland fires. As they later gained experience by training, wildland firefighters started to rely on and use their own knowledge, abilities, and judgments more. As wildland firefighters gained more experience managing wildland fire, there were greater expectations that they would ensure the safety of and teach their counterparts. Many felt these pressures. Risk for the wildland firefighters seems to have been generally

decreased, revealed, and anticipatorily transformed to appear more controllable as they gained experience managing wildland fire by formal and informal training.

*Connections to the wildland firefighting and risk taking literature.* What I have shown thus far is comparable to assertions in the risk taking and wildland firefighting literatures. For example, Desmond (2007) asserts that crewmembers that accepted the USFS common sense started to develop a disposition towards firefighting through which they placed “their faith not in supervisors, fellow crew members, or deities, but in their individual abilities alone” (p. 185). Desmond also asserts that crewmembers believed they could “rely on their knowledge to steer clear of the deadly flames” (p. 185/189). Although the interview data suggests that wildland firefighters came to rely on and use their own knowledge, abilities, and judgments more, which is very similar to Desmond’s findings, the wildland firefighters in this thesis continued to greatly rely on and use the knowledge, abilities, and judgments of others, and they learned to lookout for their own and others’ safety and expected that others would do this as well. In addition, although Desmond’s asserts that USFS crewmembers adopted a paradigm about risk and safety that was centered on “personal accountability” and “individual responsibility” (p. 177), interview data suggests that the wildland firefighters in this thesis came to adopt similar attitudes to some extent, but that the attitudes included ideas about one’s responsibility to teach others and to ensure their safety. However, wildland firefighters came to consider that ensuring safety was a shared responsibility.

Similarly, the interview data in this thesis does not necessarily support some of Tulloch and Lupton’s (2003) main assertions. For example, Tulloch and Lupton assert that most people in their study believed that “people should take responsibility for risk

and act to avoid it rather than blame others or expect others to protect them”, which was an approach to risk and responsibility held by “people with significant cultural and economic capital” (p. 29). The data in this thesis suggested, however, that wildland firefighters undertook some personal responsibility for risk, sometimes blamed others when they did not protect them, and expected others would protect them and vice versa. Every wildland firefighters in this thesis approached risk and responsibility this way despite their levels of capital. That being said, crew leaders and more experienced crew members personally seemed to undertake more responsibility for ensuring the safety of others than newer wildland firefighters did.

*Changes in practice to levels of risk.* Despite that the interview data suggested risk for wildland firefighters seems to have been generally decreased, revealed, and anticipatorily transformed to appear more controllable as they gained experience managing wildland fire, how any wildland firefighter experiences risk can change when something distinctly newer to them is part of a situation. The context of what is new, however, seems to change for very new and longer standing wildland firefighters. The following passages by Reagan provide an example of how crew composition can change how wildland firefighters experience risk.

*You said that this year you have new firefighters on your crew? How does that make you feel as a crew leader?*

Uh, kind of shafted in a way. Since it's like, I don't know, it's like, I don't know. You need a strong second. Like you need somebody to fucking, you can't have one person shoring everything. You need more than one person on anything. And it's like, I don't know. I feel handicapped, because it's just like, everybody's just fucking learning off of one person kind of thing, and that kind of bugs me. If I'm calling in the assessment, is everybody going to know what they're doing, when I'm in the truck? I lost one guy, I think his wife started school or something and so he wasn't going to come back because he doesn't want to leave her and he started a full-time job over the winter and doesn't want to quit that. Then my other

guy, they moved him to the other crew because there's another crew leader starting there and he doesn't have a whole lot of years under his belt, so they wanted to boost him up. And yeah, that was it. Then we had another guy who went to air attack, so it's like, three of us. And it's just like, I don't know. Kind of weakened. Whereas before it was like, fuck man, everybody was just there for years, and now it's like, I don't know, I feel handicapped. Or, a lack of unity, I guess. Everything's got to be rebuilt. Restart from scratch.

*You mentioned calling in your assessment and people maybe not knowing what they are doing. Does that make you nervous?*

Absolutely. It's like, new guys are always supposed to shadow right. And it's like: How do you shadow? Like, if it's me and three new guys: How do you do a shadowing type of teamwork where everybody kind of learns about their job? And I think you need that. And I don't really—It's just going to be a learning experience as far as that end of it goes. It's not the way I'm used to doing things. It's new ground for all of us. They're learning a new job and I'm learning a new way of doing things. It does make me nervous, but at the same time, they are a good group of guys and they are eager. Like they all want to learn and they all want to be there, which is good. I just wish we would've had fucking a decent year, where they could learn something, you know. Could get some experience, so we could get some more cohesion going, where it's like, everything kind of flows better, we all know where everything's at.

*Okay. Do you trust your crew members?*

I think so. Yeah, I would say I do, to a point. I'm definitely nervous because everybody's green and mistakes are always made. Like, well, I mistakes everyday. It's just a matter of the types of mistakes, I guess, that makes me nervous.

Reagan's passages suggest that changes to normal situational circumstances can change how wildland firefighters experience risk. The passages demonstrate that crew composition changes can noticeably increase, conceal, and anticipatorily transform risk for more experienced wildland firefighters on a crew. They suggest that in being and becoming the crew leader for three very new wildland firefighters, Reagan sometimes feels nervous about the future. Being nervous seems inspired by a degree of unstable confidence in a personal perception about how parts of future action will work. Reagan is to some extent uncertain about what the very new wildland firefighters' lack of

knowledge will mean for future action; what being personally responsible for many tasks that greatly demand individual, focused attention will mean for future action (e.g., teaching and creating initial fire assessments); and, what having very new wildland firefighters who make mistakes will mean for future action. The passages suggest that Reagan's perception of an older crew, which was conveyed as stronger and more unified than the newer crew, is associated with Reagan's perception of future action with the newer crew. Reagan's confidence in the former is seemingly more stable than that in the latter. For all these reasons, the passages seem to show that in imagining future action with the very new wildland firefighters, risk for Reagan seems to be anticipatorily transformed to appear less controllable than risk with the older crew. The passages also suggest that risk for Reagan is increased and concealed by the newness of the situation (e.g., learning how to work with the new crew, and minimal knowledge about the new crew). However, the passages imply that Reagan's confidence is to some extent stabilized by a perception of personal knowledge about the very new wildland firefighters behaviors (e.g., 'they are eager', 'they all want to learn', 'they all want to be there'). The passages also imply, somewhat paradoxically about risk avoidance, yet also congruent with some attitudes about risk and safety among the crew leaders in this thesis, that Reagan wishes the very new wildland firefighters could have managed more wildland fire to gain knowledge about the activity and one another to decrease and reveal risk.

The next passages by Mason also illustrate an example of how crew composition can change how wildland firefighters experience risk.

*Can you tell me about a more recent fire that you initial attacked?*

You know, the last one I did was with my two new guys, my new crew, at [White Spruce Reserve]—two new guys, one old. One guy I worked with for twelve

years, so he knew, kind of what to do. But the new guys are learning. So yeah, it's alright.

*Can you tell me about the initial attack?*

Well from the beginning—I don't know, it's kind of scary at first when you don't know how they perform at a fire. You got to keep an eye on two guys kind of thing. Not only them, the people around them.

*It was kind of scary?*

Well, you don't know how they're going to react to the fire, so, first time for everything.

*How were they on the ground?*

They got on pretty good. They took direction real well. You know, they went close to the fire, and you know, they kept safe. It gives you a sense of relief, these guys are gonna be alright, they're gonna to be okay. And you always had [crew member's name] there, and he knew what he was doing.

Like Reagan's passages, Mason's passages suggest that how people experience risk can change when something distinctly newer is part of a situation. Mason's passages indicate that having no knowledge about how two very new wildland firefighters would perform at a fire and react to a fire, made Mason feel fearful before and at the start of managing a wildland fire together. The emotion seems to have been inspired by Mason's degree of unstable confidence in a personal perception about the future. The passages suggest that risk for Mason was anticipatorily transformed to appear less controllable because the perception included the idea of not having knowledge about the two very new wildland firefighters. Relatedly, the passages suggest that the distinctly newer parts of the situation, the two very new wildland firefighters, increased and concealed risk for Mason. However, creating knowledge about their behaviors at the wildland fire seems to have diminished Mason's fear. Mason's confidence in a perception of personal knowledge about their knowledge, abilities, and judgments, was to some extent made more stable.

By creating knowledge about them, risk for Mason appears to have been decreased and revealed. Throughout the wildland fire situation, Mason's confidence in a perception of personal knowledge about the more experienced crew member seemingly stabilized Mason's overall confidence about the situation to some degree and partly influenced Mason to anticipatorily transform the situation to appear more controllable. The crew members presence seems to have decreased and revealed risk for Mason. The passages also suggest that Mason shared risk with crew members and personally took on additional risk because two wildland firefighters were very new. In addition, the passage indicates that granting trust to counterparts is sometimes demanded in directly managing wildland fire despite how well a wildland firefighter has gauged the probable future actions of another.

#### *Shared Risk in a Group*

For most of the chapter, I have been showing interview data that suggests how individuals can experience risk in being and becoming wildland firefighters. Reagan and Mason's last passages, however, suggest something about how groups can experience risk. Their passages indicate that shared risk can be decreased and revealed for wildland firefighters, and that wildland firefighters can anticipatorily transform risk to appear more controllable when they are part of crews that have spent much time together. With time, crew members can come to know more about one another in relation to their abilities to manage wildland fire, to be more cohesive, and to better deal with their wildland fire through group knowledge, all of which can impact the emotions they experience. Their passages also indicate, however, that introducing new people to crews can seemingly

increase and conceal group risk, and some group members can anticipatorily transform risk to appear less controllable.

Reagan and Mason's last passages are comparable to some of Goffman's (1967b) assertions and Lyng's (1990) assertions about risk and emotions. For example, Goffman (1967b) asserts that a consequence of learning, applying, and ritualizing adaptations to fatefulness is that a basis for anxiety is created (p. 176). It seems that Reagan and Mason learned, applied, and ritualized adaptations to risks associated with managing wildland fire, but that their adaptations were disrupted when very new wildland firefighters were added to their crews, thereby making them fearful and nervous in imagining future action with the very new wildland firefighters of whom they were partly uncertain. Lyng (1990) asserts that in association with quintessential edgework, activity in which failure to meet a challenge results in death or debilitating injury, people spoke of first feeling fear which transitioned to a sense of exhilaration and omnipotence in the activity (p. 860). After surviving the challenge, they felt capable of addressing "any threatening situation" (p. 860). In managing wildland fire, wildland firefighters can be confronted with challenges of various complexities, some of which can easily result in death or debilitating injury. Mason and Reagan's passages suggest they are greatly aware of this. It appears that this knowledge was associated with Mason's initial fear about not knowing how the very new wildland firefighters would behave at the wildland fire.

*Shared risk: reliance on knowledgeable team members.* In continuing on these themes, the next passages suggest how some longstanding wildland firefighters in this thesis spoke of trust, emotions, and the concept of control. The first passage is by Mason.

*With all of your close calls, and the firefighter deaths that you read about, why do you still do your job?*

I don't know. I feel that I have a say, if I want to go fight that fire or just let it go for a while and be, better safe than sorry. I kind of have that control over a fire being a crew leader—when you're the first one there. You don't have to be the one to get down there and work on it. You know, it's life or trees for us. You know, communities are always—if you have a chance you evacuate them and stuff like that. But, yeah, I don't know. That's what I'm thinking right now. What's the other one?

*Just like, after your experiences and reading about firefighter deaths, why do you continue doing your job?*

Oh, I like it. Like I said I feel safe. And when you have a boss like ours, [Person A] here, I think he knows your potential, what you can do, what you can't do. I don't think he'd put anything over your head. If you can't handle it, he probably wouldn't put you in that situation. [Person B] too, he's pretty good. He actually knows what he's talking about. He's been through the fire program. He worked as a firefighter, crew leader, now he's a [firebase boss]. I think when you have good coworkers, you know, guys that know what they're doing—crew leaders, [Person C], [Person D]—you feel pretty safe. I mean, you have good backup, you have good workers, and you know, they'll help you any way they can. So that helps a lot. It makes you feel safer.

*Being a part of a group.*

Yeah. You're not alone kind of thing.

In these passages, Mason suggests that wildland firefighters can come to feel some control over wildland fire because they can use their decision-making power to decrease risk. The first passage implies that Mason has great confidence in a personal perception of being able to make good judgments that can ensure safety. In possessing such an attitude, Mason seems to anticipatorily control risk to appear more controllable. The second passage, however, suggests that Mason's great confidence in a personal perception of a firebase boss' ability to make good judgments about wildland firefighters' abilities in managing wildland fire, influences Mason to feel safe. The second passage indicates that the sense of safety involves Mason's behavioral trust in the firebase boss, trust that is seemingly centered on knowledge of the firebase boss' ability to very

accurately assess wildland fire management situations. Relatedly, similar to Reagan's passages about crews, the passage also indicates that more experienced wildland firefighters can feel safer by great confidence in their perceptions that their coworker's knowledge, abilities, and judgments are strong. I later show interview data that suggests that one's ability to accurately assess others' abilities to manage wildland fire can generally become better with time.

*Structure of wildland firefighters' groups.* The next passages by Evan provide an additional example of a longstanding wildland firefighter speaking of control.

*Since you've experienced more wildfire over the years, has that changed the way you view it?*

Yeah. Because like, I feel I have more control over it as an initial attack firefighter. Because. I don't know how to explain it. Well yeah, as an EFF [Type 3 Fire Fighter], you don't really have control, right. You're just listening to the crew boss. And now, I can like, well, I have crews and stuff under me. Well like, when I work with them, it's best to—well, you can tell them what you want done on the line or whatever, right. You don't have to do it yourself or kind of carry some people around like back in the day. You'd always get about three or four people that will just lay around or go disappear in the bush and not help you out. And now it's all, well there's only four guys or whatever so you all have to work together. There's no people kind of disappearing and stuff like that. Well, some people like to disappear.

*Yeah, a couple. How does it make you feel when you're seeing wildfire?*

Hm. I don't know. I just, I feel a lot, well, a lot better, safer and stuff. Because I got more experience and whatnot, but I still get that adrenaline, like I want to just do as much as I can. I want to just plug away, like, with the hose or whatever. Whatever I have. I just want to, I don't know, it just, I like that adrenaline rush. Especially when it's like a bigger fire and it's rolling or something, or if it's burning hot and if you can safely go in there and just knock it right down. I don't know, the accomplishment I guess, you know. I knocked it down and uh, I don't know, just doing a good job on a fire. I just look forward to that and then at the end of the day, if you work with other people, then they know 'This guy's good' or whatever and you get good reviews or whatever.

In these passages, Evan suggests that differences between the decision making control of a Type 1 Fire Fighter who has been in the position for many years and a very new Type 3 Fire Fighter.<sup>23</sup> The passages suggest that in comparison to being a very new wildland firefighter, as an older wildland firefighter, personal confidence in a perception of cumulative experience inspired Evan to proclaim that nowadays wildland firefighting seemed personally safer. The passages imply, similar to others in the chapter, that with time, firefighters can gain perspective knowledge about safely addressing danger. Evan implies that the knowledge influences one's assessments regarding whether they can safely address danger. Thus one appears to learn about their abilities in relation to their external environment as they gain experience managing wildland fire. Confidence in one's own perception of this knowledge can influence wildland firefighters to feel safer and to sense greater control over fire with time. But a sense of control, as Evan indicates, is situational, and therefore changes with situations, and with one's assessment.

*Planning in wildland firefighting.* These themes are apparent in the next passage by Jordan about being around fire. Before speaking the words, Jordan spoke extensively about danger involved in managing wildland fire.

*How do you feel when you're around fire?*

I feel like, it's my old friend. It's nice to have some flames around. I know what it can do and what it does and I know ahead of time what I have to do. So it helps me know how the fires burning and how long it's going to be. It gives me a better strategy for my own planning: where I have to be at this time, where I'm going to

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<sup>23</sup> Generally, in comparison to Type 1 Fire Fighters, Type 3 Fire Fighters have always possessed much less control over the more wide-reaching decisions that are made about managing wildland fire. For this reason, Evan was legitimately in a position with much more responsibility for control when the passages' words were spoken. Responsibility for control sometimes increases for wildland firefighters as they gain experience managing wildland fire.

hit it. I don't just go race up to it and expect I'm going to be there. I know where it's going to be by the time I'm going to get there, so I'll have a plan for that area.

The data suggests that with time Jordan has created knowledge about the general behaviors of wildland fire. Jordan appears to behaviorally trust the knowledge and uses it in assessing fire situations and addressing risk. Specifically, Jordan seems to use the knowledge in developing assessments which include images of the self in relation to its' external environment. Jordan's passage is centered on the idea of control regarding the self in relation to wildland fire. It suggests that as wildland firefighters gain experience managing wildland fire they can come to more easily predict parts of the future, using their knowledge as a basis in assessing their potential future selves in relation to their potential future external environment. Thus, the passage suggests wildland firefighters can come to more easily extend the limits of their focus in the immediate present to the future. Their knowledge, abilities, and judgments can possibly make their experiences less adventurous (Simmel [1911/1919] 1959). It seems, however, that any wildland firefighters' beliefs about the future can become highly correct despite the level of knowledge that helped inform them.

In sum, wildland firefighters create plans about future action from their local knowledge, perspective knowledge, facility knowledge, and language knowledge. With more knowledge, they can become more able to anticipate their future actions towards achieving wildland fire management goals. Knowledge can assist wildland firefighters by helping them create more accurate understandings of what is happening and needs to happen to achieve goals. Relatedly, it appears they can better imagine possibilities about how to effectively and efficiently deal with situations. For example, whereas a newer wildland firefighter may not be able to develop a complex plan to efficiently manage a

complex wildland fire situation, for lack of knowledge about the capabilities of available fire equipment, what fire equipment is required and suitable for a situation, and that certain fire equipment exists, an older wildland firefighter may be able to develop such a plan with their knowledge. Data indicate, though, that plans develop and change with time and one's ability to create assessments can waver.

*Connections to the risk taking literature.* The current discussion is comparable to assertions about control in the risk taking and wildland firefighting literatures. Lyng (1990) proposes seven main assertions about control for edgeworkers. First, the illusion of control makes edgeworkers "behave as if they could exercise control over events that are actually chance determined" (p. 873-874). Second, edgeworkers believe the ability to "maintain control over a situation that verges on complete chaos, a situation most people would regard as uncontrollable," determines success or failure of meeting edgework challenges most, despite the fact that edgework is to a large extent chance determined, which they generally reject, believing that the ability ultimately determines edgework outcomes (p. 859/870-872). Third, edgeworkers may further develop an illusion of control. Fourth, edgeworkers maintain some control in edgework. Fifth, despite that edgeworkers "seek a highly structured experience in which hazards can be anticipated and controlled", they also "attempt to place themselves in a highly unstructured situation that cannot be planned for" (p. 875). Sixth, in edgework people experience a heightened sense of control in comparison to the control they sense in institutional life, although the control they sense in edgework is "largely illusory" (p. 873-874). Seventh, "edgework calls out an anarchic self in which ego is manifest but the personal institutional self is

completely suppressed” (p. 878). The interview data in this thesis trouble most of these assertions.

Firstly, wildland firefighters are not in the business of increasing risk. Most do not try to place themselves in highly unstructured situations that cannot be planned for. Sometimes wildland firefighters in this thesis took greater risks to achieve wildland fire management goals. For example, many would extinguish a more intense section of a wildland fire in an initial attack before extinguishing a less intense section if they could safely contain a fire during, say, an hour rather than two weeks. But the safety of human life was their ultimate goal. They did not want to test their abilities against danger. They had perceptions of their abilities that they used to try to achieve fire management goals, one of which was not being in what they considered as positions in dangerous situations that could potentially end their lives or injure them.

The data for this thesis suggest that wildland firefighters were highly aware that risk was part of their work and that some risk could not be entirely controlled. They did not necessarily view risk, as Desmond (2007) suggests USFS wildland firefighters did, as “something that can be tamed” (p. 8). They viewed risk as something that was present or could potentially become present to degrees in various positions of situations, but that choices could be made that would place them in positions with manageable risk where they could attempt to work towards achieving certain goals. They rolled with the situation trying to avoid serious risk. With time, every wildland firefighter gained more knowledge that there were uncontrollable, chance-determined entities of situations that would overpower them or could overpower them. These ideas question Lyng’s concept of the illusion of control.

If we accept that there are unknown and unpredictable elements of situations, then we can proceed to argue that every person lives by an illusion of control. I greatly accept this argument. However, as interview data in this chapter indicate, it appears that: people can gain very accurate knowledge about danger and use it to minimize danger (including, knowing that parts of situations are not entirely controllable); people who are coming to possess more knowledge about danger may gain more control of themselves and their external situations by the knowledge, thereby making the control they sense in risk taking less illusory; and, people in risk taking may be very accurately sensing control from moment to moment that is not largely illusory.<sup>24</sup> Knowledge can assist wildland firefighters in more accurately assessing their self in relation to their external situations.

Thus, in sum, interview data in this thesis appears to show that wildland firefighters rarely further developed an illusion of control, as Lyng describes it, over events that are largely chance determined. They knew, or came to know, that there was always danger and potential danger to the self in managing wildland fire but that behaving in specific ways could control some of it. Although the interview data in this thesis partly supports Lyng's assertion that people in high-risk occupations sense control

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<sup>24</sup> The day I saw smoke columns in every direction I looked (Chapter 1) was the first time I saw flames above the Boreal Forest in person. We stood on a dirt road beside the forest and there was an old trail that had been cleared through the forest that led to the area where white smoke was rising from the fire. One wildland firefighter, in their first fire season, saw the old trail and wanted to back the fire truck down it to fight the fire. Our crew leader requested air support and told the firefighter that we would not back the truck down the old trail. We waited on the road instead. Soon after, the fire sent black smoke billowing into the atmosphere. Flames flittered above the trees. The forest hissed. As air support arrived, embers flew through the air and crossed the road. Our crew leader instructed us to use a fire truck, a pumper-trailer, and hand tools to extinguish spot fires igniting in the forest from the embers. After air support decreased the main fire's intensity, fire crews were directed to extinguish it. Looking back, the situation could have been deadly had we backed the truck down the old trail. Who was under the greater illusion of control?

in risk taking, the wildland firefighters in this thesis would never negate that there are very uncontrollable parts of particular situations and they would suggest that they could sense and anticipate some of these parts in particular situations, which was in part influenced by their knowledge. Thus, even though the wildland firefighters may not highly sense their 'institutional selves' during risk taking, especially when the activity calls for much focused attention, their 'institutional selves' always partially influence their actions. It appears there are never situations in which 'institutional selves' are completely suppressed, nor are there completely novel situations. The self is always being in becoming.

The idea that people can gain knowledge of danger, more control in particular situations, and lessen their illusion of control, is alluded to by Tulloch and Lupton's (2003) assertion that some people in their study indicated they were more careful as adults because they better appreciated and realized the consequences of risk (p. 20). The idea is further supported by Tulloch and Lupton's assertion that most people in their study "were highly aware of the risks imposed upon them over which they had little control, and which therefore could not be managed effectively, but rather had to be left to fate to some extent" (p. 30). Relatedly, similar to many people interviewed in Tulloch and Lupton's study (p. 29), wildland firefighters in this thesis thought that they could personally control risk to some extent.

*Risk, knowledge, trust and emotion.* Aside from suggesting ideas about control, recent passages in this chapter from longstanding wildland firefighters suggest something about experiencing emotions in directly managing wildland fire. As the recent passages by Evan and Mason suggest, longstanding wildland firefighters in this thesis sometimes

proclaimed to feel nervous and effects of adrenaline in directly managing wildland fire. Other words longstanding wildland firefighters used to proclaim how they felt in wildland fire situations shortly before their interviews were: fearful, excited, scared, and happy. However, interview data for this thesis suggests that as wildland firefighters gain more experience directly managing wildland fire, they generally and increasingly feel calm more often in doing the activity. Feeling calm came to be the emotion wildland firefighters felt most in directly managing wildland fire.

Feeling calmer with time meant that the effects of adrenaline were more rarely felt. This is similar to Desmond's (2007) suggestion about USFS wildland firefighters' adrenaline rushes fading with time.

[B]ut many firefighters, especially veterans, no longer experience a rush while on the fireline. After a few seasons, the electrifying tingle of emergency—that combination of fear, confusion, newness, and amazement that possesses many young firefighters—fades. The frenzied shouts of adventure quiet down, becoming a mild-mannered conversation, then a soft-spoken murmur, and finally only a gentle whisper.” (P. 63)

Despite that wildland firefighters in this thesis generally felt effects of adrenaline more rarely and calmer with time, as interview data in the chapter suggest, there were times when they felt effects of adrenaline regardless of their experience level. Some longstanding wildland firefighters indicated that they mostly could feel strong effects of adrenaline: at the beginning of some initial attacks, especially when fires seemed intense; sometimes in managing wildland fire, when fires seemed intense; in highly dangerous unanticipated situations; and, the first times they initial attacked fire each season because they were getting re-accustomed to the job after being laid off for several months.

Interview data suggests three main reasons why wildland firefighters generally and increasingly felt calmer with time in directly managing wildland fire. First, as

wildland firefighters created knowledge about managing fire, they often became more aware of their abilities in relation to their external situations in trying to achieve wildland fire management goals, which appears to have resulted in less of life being uncertain and unknown for them, thereby helping to stabilize their overall individual confidence levels. With more knowledge about the job, its tasks generally became more routinized and habitualized and wildland firefighters could normally and more easily use their own abilities to focus great attention on trying to accurately assess the situations they were in. Focusing their attention appears to have influenced them to feel calm, especially when it seemed that parts of their situations were quite known, certain, and safe. The focus I speak of here seems to relate to the focus involved in the optimal experience of flow. The next passages by Jordan support the first main reason.

*How does it make you feel when you're starting an initial attack?*

Well, because that's when your adrenaline rush is, when you start seeing the smoke column coming up ahead. As soon as you're seeing the smoke column, it's all in your head, what you got to do. You're already thinking of what you're going to do, like who's doing what, and how you're going to do it. And so, once you start seeing the lay of the land, you've already started picturing it in your head, who's going where and who's doing what and how you're going to do this, while you're pulling up.

*Are you experiencing emotions at that time?*

No, just like, you're always, always planning ahead. You're planning two steps ahead of your fire, before it's coming to you. So you've probably already established what you're doing. So just knowing where to put your lines—that your lines are going to be safe when you're making it quicker in time. And you're always looking up. You always look up.

The next passages by Adrian also support the first main reason.

The better firefighters put their emotions aside and go into a different mode. Just a firefighting mode, where it's just textbook—I'm doing this, I'm doing this, because of this—and it's just an automatic reaction to stuff. You kind of leave your emotions aside because you have a job to do and it's a more efficient way to

do it. You almost kind of go into a robotic mode where it's, this happens your actions this, there's no emotion involved in what you're really doing. The way that emotion would play out on a fire, at least with me, it's always exciting to get to a fire. Flying in a helicopter, circling a fire, banking out, and there is a nice view of the landscape. It's always exciting and a big adrenaline rush. But once you actually start fighting the fire, usually emotion gets kicked to the side because you have a job to do.

*Do you think that your emotions at fires have changed from your first season to your last fire season?*

I think from the very get go yeah. I'm a lot—I'd say I'm a lot calmer on fires then I was at the very start. You're still a giddy little schoolgirl at the start. When you see fire and flame, you're doing this cool job. But by the end, it's a little more textbook. You're just there to do a job. You know what needs to be done and that's what you do. But there's still always that excitement factor and a little bit of an adrenaline rush that gets going when you're at the fire, no matter how many years you're doing it, I think.

The next passage by Sydney supports the first main reason as well.

*How does it make you feel when you see fire?*

I don't really feel a thing, you know, like, it's just my job. I see it as a task, and that's my task to put it out. I don't really get an adrenaline rush like when I first started. I get a little bit of excitement, but it's more or less just my nerves kicking in and my training that's kicking in. Yeah. When I see a fire I don't really see a fire. I just see something that's in my way of getting my paycheck.

*What do you mean by your nerves kicking in?*

Like, some people get scared, some people tense up and stuff. But me, it's just, nothing. I just do it. I had some real, real good trainers that taught me a lot of stuff out here. I'm pretty comfortable with everything, like fire, the line, everything. Chopper.

*You were saying some people get scared. Do you have a story about that?*

We had this flare up in Quebec [(Sydney went to Quebec in 2013)]. Well, it wasn't really a flare up it was more or less a chainsaw burning, and the guys all kind of panicked and ran away. But the two veteran guys just laughed it off and hosed it down and we had a good chuckle about it, because it was kind of funny to see guys running from, from a torching tree. But, you know, it's like I said, when you start as a new guy at new hire training, they mention all these risks and all these hazards and you think, when it's your first day, 'Oh shit, this could be my last day, I could be gone, I could go down in a chopper'. But now I don't think

like that anymore, because I have so much trust in the pilots, and my guys, and myself.

Despite these passages, Blaire, Jordan, Adrian, and Sydney sometimes used words for emotions such as scared and excited in different interview passages to describe how they felt at wildland fires.

The second reason why wildland firefighters generally and increasingly felt calm in directly managing wildland fire was that as newer wildland firefighters created more knowledge about the behaviors of older wildland firefighters, they usually noticed that feeling calm was an emotional state that many older wildland firefighters exhibited most in directly managing wildland fire. They imitated learned the behavior. Many current and past wildland firefighter training manuals also convey that feeling calm is the best emotional state for dealing with high-stress situations. The passage earlier in this chapter about Lane's first fire indicates how quickly some wildland firefighters are introduced to older wildland firefighters feeling calm. Third, it strongly appears that feeling calm is often required to most effectively, efficiently, and safely address the situational demands and goals of managing wildland fire. The situation greatly demands the emotional state. For example, if one were most often sad, they may not be able to do their job very well. Sydney alludes to this point in the next passage.

*How does your relationship with your daughters work when you have to leave them to fight fire?*

It's real hard, you know. Like some nights it's kind of hard to keep your spirits high. You get a heavy heart leaving home. But then you get out here and you meet all your buddies and all your coworkers and it doesn't seem all that bad.

*Do you start to miss them after a while when you're gone?*

Yeah, every day, you know. But at the same time, I have got to focus on my job. If I'm focusing on them too much, then I could mess up and I could get somebody

seriously hurt. So, most of the time I think about them after work and before work.

### *Cultural Values*

As I suggested by discussing feeling calm and the concept of behavioral trust, with time wildland firefighters in this thesis normally came very close to sharing values about human behaviors, reasons for evaluating the values, the importance given to specific values, and specific combinations of values. This section of the chapter is centered on generally valued and not valued human behaviors among the wildland firefighters in this thesis. I show interview data that suggests how specific human behaviors were associated with the trust that wildland firefighters granted to their counterparts.

*Traits of a wildland firefighter.* From first undertaking wildland firefighting, those in this thesis ordinarily came to assume, regardless of their awareness, commonly accepted attitudes about specific human behaviors. Within these terms, the wildland firefighters undoubtedly influenced the situations they entered, but similar to most group situations, presumably, not very much. The next series of passages suggest human behaviors that wildland firefighters usually came to value. The first passages are by Blake.

A good wildfire fighter is, the traits would be, they don't really have to be a leader, but they definitely have to not be shy around the firebase because you kind of need to be able to talk to everyone and gain more knowledge. The first year I worked at the base, I became friends with a lot of the older guys and by doing that I learned so much, so much more to firefighting. Like they would teach me a little bit at work and then we would hang out after work and they would teach me a little bit more. I would say the social aspect of being a hard worker and being friendly would help a lot. On top of that, just having the common knowledge to look out for the general safety of everybody that is around you, not just yourself, your crew, other crews, the safety of the public. Having a good work ethic,

showing up every day to work, and calling in when you're going to be sick or that type of thing. I think those would probably be the most key things.

*You brought up common knowledge. Can you elaborate on that?*

Just common knowledge of wildfire behavior I guess. The more you get around it, the more, not comfortable you feel, but the more, better understanding you get, where you can predict what the weather is going to do. If you know the weather, you can kind of predict what the fire is going to do and with more and more fire experience and years of experience comes better knowledge I would say. Being able to pass that down through the different levels of firefighters is very key because the more you teach others the better as a whole you're going to be.

The next passages are by Blake as well.

For firefighting, our job is very demanding so if you're not physically fit it could be challenging for you, it can make the jobs for your crew more challenging, and can also put a lot of people's lives in danger if you're not physically fit due to whatever reason it may be.

You need to be able to trust people you work with when you're firefighting on the basis of them showing up every day to work so you have the proper amount of guys showing up to the fire so you're not carrying too many bags—where people have to pick up the workload for somebody else. That they're going to work safely around you, always watching out for each other's backs. You never know if fires going to jump out on you or a situation where a tree falls and another set of eyes might save someone's life.

The next passages are by Adrian.

Someone that constitutes a good firefighter is someone that's organized and levelheaded and can work under pressure in a calm, cool, collected manner and just has a really good work ethic. There's a lot of downtime but when it gets busy we're working really hard for long hours so a work ethic is a good thing to have for a firefighter.

*How does one become levelheaded?*

I think it's just being knowledgeable about firefighting so you're not surprised by what's happening. And having some of the older guys around you to teach you some of the things about fire, like safety things, and how everything works. Just being knowledgeable about what you're getting into so you're not surprised or stressed out due to unknown factors. It's a lot about—knowing what's going to happen keeps you calm I guess.

The next passages are by Mason.

I got two new guys, they want to be working, they want to be firefighting, they want to learn, they ask to learn, they ask stuff. Those are the guys you like to hang around with and teach them what you know. The two of them there, I talked to them, and I said, 'You guys are two young guys, strongest ones, you guys can do most of the lifting'. 'Yeah, we'll do the most work here if you want, just look after us, make it safe'. I thought that was a good thing. It was a good thing to say. At least they trust me. It's a good crew. I like them crews.

*What do you mean by trust?*

I think they use my experience as a comfort zone, I guess. They feel safe with the experience I have, what I went through I guess. Whether we're talking about safety and everything like that.

The next passage is by Kendall.

[(My crew leader)] made it easy for sure you know. Like, very approachable and told you what you needed to know, didn't really leave you out there you know. So it was good. He was a good leader. The fact that we're the same age is pretty awesome so he can talk to me like a peer. But yeah, he was good. Always giving me tips throughout the year, whether it's cutting a tree or whatever. If I hang up a tree, he'll be like, 'Cut it here and here'. Good relationship. Which is important when you're working with each other all fire season, right. Especially out here, you spend a lot of time together.

The next passages are by Harley.

It was the [Poplar Fire]. I went there with Jordan and [(another firefighter)]. And it went really mellow, like, our trip. Like the guys were really trained and stuff, and they basically did it all. Jordan kind of explained everything we were going to do on the fire and it just went really smooth and stuff...Jordan was like, he was in charge and explaining what I needed to do. If I had some questions, he was very approachable and stuff. So it was really cool there.

[(Firefighter name)] has taught me the most out of everybody. He kind of catches a hard time. But we worked on the [Willow Fire] and he was building up the assessment plan and shit, and he was talking to us about the whole thing and asking us questions and getting us involved and stuff, and I was like, 'Oh yeah, that's good'. And when the bombers came we were sitting around and he was like, 'I think we should get more bombers', and we got the Trackers, and he's like, just keeping us involved in the decision making and stuff. And I was like, 'Cool, cool', and it's like, I learned so much from him.

The next passages are by Blaire.

That's when I first got my first taste of firefighting and I liked it. Mainly I liked it because I had a good leader. I had a crew leader and he taught me out there, like, how to fight fire, how they do it back in the old days. But it was good and I liked it. The good physical work. And when you're at the end of the day, you know that you accomplished something and it's done and you know you did a good job and your boss tells you you're doing a good job. That's what I liked about that crew leader, it was just, really gives you feedback on how you're doing and whatnot. And he did that for everyone there, except for the older firefighters, there was a couple older experienced firefighters there, so he didn't really have to teach them anything.

I had a good crew leader. Our regular crew leader was in Quebec that time so [(another firefighter)] was our crew leader, and he knows his stuff, so I was pretty comfortable working with him. And he kind of asked, asked us about how we do things, like, he wanted to get input on like how we run things if there's a fire. Like, who grabs what, and who does what. And he was pretty thorough about that, and I liked that. He's pretty knowledgeable too with stuff, so, he was a pretty good crew leader to work with.

The next passage is by Casey.

[(That firefighter)] makes you really relaxed. So even as we flew over top, like when we were flying over top deciding on where we were going to get dropped off, he was kind of like, 'Okay girl, take a break', like, you know, 'Think about what you're doing, relax'. And it's like, 'Yeah, no problem'. This is where he told me exactly where we're starting from, what's happening, who's going where, who you're working with, and it was kind of like, you trust him because he's a very wise man. Very wise man.

Using these passages and others in this chapter, one can create an image of how wildland firefighters in this thesis would likely characterize an ideal wildland firefighter based on the human behaviors they came to value. For example, the passages suggest that in relation to wildland firefighting, an ideal wildland firefighter is friendly, sociable, and honest, and views their counterparts and their self as parts of a team. An ideal wildland firefighter is usually calm, cool, and collected when managing wildland fire (when warranted), but more generally is knowledgeable about the job, experienced, organized, physically fit and able, and motivated to learn, teach, listen, and assist as a team member with the intention of keeping people safe. An ideal wildland firefighter executes these

team member activities, is trained, is interested in the job, wants to do the job, makes good decisions, plans and prepares for future action, participates correctly in making collaborative decisions, fairly takes responsibility for their actions, communicates well, and possesses a good work ethic. The latter is connected to attending work, working hard when called upon, complying with procedures for taking work off, though taking work off is rare, and not leaving work until fatigue impedes safety. An ideal wildland firefighter leaves work when fatigue impedes safety, rests, then returns to work to finish what they left. On attending work, an ideal wildland firefighter additionally senses a duty to show up to work for the team.<sup>25</sup> By exhibiting these human behaviors of the ideal

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<sup>25</sup> Being friendly, sociable, and honest is similar to Holmes' (1948) ideas about wildland firefighters and goodwill and Goffman's (1967b) idea about gallantry. Being calm, cool, and collected is similar to Goffman's (1967b) idea about composure, Lyng's (1990) idea about the unique edgework survival skill, and Pacholok's (2009) idea about remaining calm in crisis. Being knowledgeable about managing wildland fire and experienced is similar to Pacholok's (2009) idea about wildland firefighters valuing knowledge of wildland fire; Desmond's (2007) idea about firefighting competence; and ideas about local knowledge, language knowledge, perspective knowledge, and facility knowledge in Chapter 3. Being organized is presented as a valued wildland firefighter quality in: (USDA 1905). Being physically fit and able are presented as valued wildland firefighter qualities: (USDA 1905); (Kelly 1956); (Jones 1902); (Jackson 1911); (Desmond 2007); (Eriksen and Waitt 2016); (Eriksen et al. 2016); (Ross 2006). Learning, teaching, listening, and assisting as a team member with the intention of keeping people safe is similar to William James' idea in Goffman (1967b) about submerging oneself into the immediate needs of the whole, and Holmes' (1948) ideas about teaching. Being trained is presented as a valued wildland firefighter quality in: (USDA 1905); (Pond 1949); (Chester 1966); (Kelly 1956); (Thorburn, MacMillan, and Alexander 2000); (Desmond 2007); (Ross 2006). Being interested in the job and wanting to do the job are presented as valued qualities in: (USDA 1905). Making good decisions is similar to ideas about 'good judgment' in: (Gisborne 1948); (Taylor and Alexander 2006); (USDA 1905). Planning and preparing for future action is presented as a valued quality in: (Lyng 1990); (Goffman 1967b); (Osborne 1934); (USDA 1905); (Caverhill 1926); (Chester 1966). Communicating effectively is presented as a valued wildland firefighter quality in: (USDA 1905); (Gordon 2014); (Van Wagner 1956); (NIFC 2015). Working hard is similar to Goffman's (1967b) idea about gallantry and Desmond's (2007) ideas about working hard. However, whereas gallantry is presented as the honorable capacity to "stick to a line of activity and continue to pour all effort into it regardless of set-backs,

wildland firefighter, the wildland firefighters in this thesis could gain respect and trust from their counterparts.

The complexity of life hinders the possibility of being and fully becoming the mentioned ideal wildland firefighter. Individual capacity, ability, and perception are some factors that make being and fully becoming an ideal wildland firefighter impracticable. Moreover, as passages in this chapter suggest, there were often expectations about exhibiting human behaviors in greater intensities based on a person's general positions in being and becoming a wildland firefighter. Although longstanding wildland firefighters could gain respect and trust from their counterparts who perceived them as good listeners, for example, to them, it was extremely important that very new wildland firefighters were very good listeners. In addition, because of power differences in decision-making, what constituted a 'good' decision for a very new wildland firefighter, was greatly different from what constituted a 'good' decision for a longstanding wildland firefighter.

*Creation of knowledge of cultural values: direct involvement.* In creating knowledge about managing wildland fire, wildland firefighters simultaneously create knowledge about cultural values associated with human behaviors. The wildland firefighters in this thesis generally came very close to sharing values about human behaviors that characterized the ideal wildland firefighter. This is suggested in interview data by common descriptions from wildland firefighters in this thesis about 'good' and

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pain, or fatigue" (p. 218), wildland firefighters in this thesis would generally suggest that although one must push themselves to work very long hours when called upon, there comes a time when the most honorable thing to do when fatigue begins to jeopardize one's own safety and others' safety is to rest. Moreover, whereas Desmond (2007) suggests crewmembers greatly connected one's work ethic to pride and being a 'man', interview data in this thesis seems to refute this suggestion, indicating that some wildland firefighters connected one's work ethic to notions of trust.

'bad' human behaviors. As wildland firefighters created more knowledge about values and managing wildland fire in being and becoming, they usually became better, to some degree, at assessing the human behaviors their counterparts exhibited. Initially, as interview data in this chapter suggests, very new wildland firefighters seem to have generally wholeheartedly trusted their counterparts at their first fires. They usually trusted and perceived that their counterparts knew how to manage fire well. This is similar to Fine and Holyfield's (1996) suggestions about trust that novice mushroom collectors quickly granted veteran collectors, a process that involved the acceptance of veteran collectors competence and abilities. Interview data from this thesis suggests, however, that the very new wildland firefighters generally had not yet created much knowledge about managing wildland fire or their counterparts within this context. They therefore, presumably, lacked much ability to accurately assess the degree to which their counterparts were exhibiting valued human behaviors, such as showing knowledge of managing fire well, because they had not yet created much knowledge about what that meant.<sup>26</sup> Thus wildland firefighters could come to discover, for example, that their counterparts were not as knowledgeable as they once thought. This general trajectory of being and becoming usually influenced when and how wildland firefighters granted their counterparts trust as well as separate entities. It therefore influenced how wildland firefighters experienced risk.

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<sup>26</sup> Any wildland firefighters may very wrongly perceive their counterparts as possessing ideal wildland firefighter qualities. They may perceive their counterparts as possessing some qualities. They may perceive their counterparts as possessing degrees of qualities and various combinations of them. It is also possible that wildland firefighters can very accurately assess their counterparts mostly by belief

In general, in opposition to very new wildland firefighters, longstanding and older wildland firefighters often took longer to wholeheartedly trust newer wildland firefighters because they had yet to create much knowledge about the newer wildland firefighters general behaviors, as influenced by their own knowledge about what it took to manage wildland fire well. As interview data indicated, some were unsure how very new wildland firefighters would perform at wildland fires. This arrangement of being and becoming could change how risk was experienced for the longstanding and older wildland firefighters. Relatedly, mixtures of behavioral trust by all parties at wildland fires would have impacted mutual trust between and among group members.

*Creation of knowledge of cultural values: indirect involvement.* Aside from creating knowledge about the general behaviors of their counterparts through direct experience with them, wildland firefighters also created knowledge about their counterparts by communicating with third parties. When highly revered WFMB workers communicated their views about wildland firefighters, their messages could tend to influence listeners more than when workers who were not highly revered communicated their attitudes about wildland firefighters. An example of creating knowledge of counterparts by communicating with others was shown in an earlier passage in which I asked Mason how two very new wildland firefighters dealt with a fire ‘on the ground.’ When I asked Mason about this, although I was not necessarily aware of what I was doing in relation to the analysis and interpretation in this thesis, I created knowledge about the two very new wildland firefighters by communicating with a third party.

Wildland firefighters also created knowledge about the general behaviors of their counterparts by drawing on their own knowledge about different people who were in

similar positions as their counterparts. As many passages in this chapter suggest, older wildland firefighters indicated that they sometimes created knowledge about their counterparts this way in proclaiming that very new wildland firefighters were still learning and would make mistakes. Their proclamations suggest they knew something about how very new wildland firefighters learn.

*Job requirements: capacity to do the job.* As the preceding discussion suggests, at given times there are minimum requirements of humans to meet the general demands of activities well and safely. There are typically minimum requirements for certain positions associated with activities as well. For example, it seems there always have been minimum physical capacity requirements associated with managing wildland fire. Within these terms, nowadays, the general baseline requirements for physical capacities are influenced by land management policies, how many wildland firefighters are on crews, weather patterns, fire regimes, modes of transporting wildland firefighters, fire equipment usage requirements, and so forth. In consequence of the requirements, it appears that wildland firefighters usually have come to value the capacities associated with the minimum requirements in some way (see Desmond (2007), Eriksen and Waitt (2016), Eriksen et al. (2016), Ross (2006), USDA (1905), Kelly (1956), Jones (1902), Jackson (1911)).

Interview data in this thesis suggest that wildland firefighters eventually became better, to an extent, at assessing whether their counterparts were meeting or exceeding the general baseline requirements for being and becoming wildland firefighters. Their assessments of their counterparts, and the behavioral trust they granted them changed with time as they created knowledge. In relation to addressing risk, categories of identity

of their counterparts were of little importance in their assessments. They mostly wanted to know if, how, and to what extent their counterparts could do the practical demands of the job with them safely. Assessing others' capacities and potentialities was the main focus and most influential part of their analyses. As Adrian suggested of a future situation involving very new wildland firefighters working at the firebase where we worked: "There is definitely going to be some new recruits around base. It is always interesting to see who can cut it and who can't".

Can the person drive the fire truck well? Can the person use their radio well? Can the person use hand tools well? Can the person start the pumps well? Can the person walk on muskeg well? Can the person focus long enough to finish the job well? How well might the person be able to do these later? How well might the person be able to do these at a very intense wildland fire? These were some of the basics that needed to be covered. Counterparts' actions doing the demands of the job mattered most for the wildland firefighters in this thesis. The accent was not on identity categories as much as it was on human behaviors, especially with time. While wildland firefighters sometimes used gendered pronouns to address individuals, for example, they could have just as easily, and often did, use individuals' names or words such as 'person'. Although some wildland firefighters sometimes used a gendered language to make sense of life—in asking, 'Can he set up a sprinkler system well?'—the gendered language was not necessarily the important parts of their messages. The behavioral part carried more significance. It would be highly incorrect to interpret the wildland firefighters' language in this thesis from some gender theory perspectives.

*Assessments.* However, the interview data in this thesis indicates that some wildland firefighters might have discriminately started their initial assessments of their counterparts partly by perspectives that could inhibit the accuracy of their assessments. As was suggested in Chapter 6, some wildland firefighters might have partly used perspectives about city-boys when they first assessed Adrian. It is possible that the perspectives, for some amount of time, influenced the accuracy of the knowledge they created. With time, nonetheless, the wildland firefighters seemed to have granted Adrian some respect and trust because they created knowledge about Adrian exhibiting ideal wildland firefighter behaviors.<sup>27</sup> This is similar to Fine and Holyfield's (1996) suggestions about the trust that expert mushroom collectors granted novice collectors once the latter showed competence.

In creating knowledge about what counterparts can do, wildland firefighters in some sense were judging and reputing them. The wildland firefighting literature shows that wildland firefighters have been judging and reputing one another for quite some time (see Chapter 3 and Chapter 4). It is likely the result of the reality of the job. As is proving oneself in some way. The wildland firefighters in this thesis generally came to judge and repute one another's behaviors in relation to the mentioned ideal wildland firefighter behaviors. They valued the behaviors and could respect and trust their counterparts based on how they perceived their counterparts exhibited the behaviours. It seems the most

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<sup>27</sup> It is possible that ideas about gender, sex, and sexuality can greatly hinder wildland firefighters from clearly and equally assessing their counterparts (see Ross (2006); Eriksen and Waitt (2016); Eriksen et al. (2016)). Notions about other identity categories may also greatly influence one's assessment of another person. The interview data in this thesis, however, suggested that such factors were of little importance in influencing wildland firefighters' assessments of their counterparts' capabilities and potentialities.

important quality, which vastly impacted relations of trust, was one's knowledge of managing wildland fire (theoretical knowledge and tacit knowledge).

As suggested, it appears there are highly practical reasons for why wildland firefighters judge and repute one another. The interview data for this thesis and much wildland firefighting literature indicates that wildland firefighters mainly participate in the practices because their individual capacities at given times to achieve the objectives of wildland fire management perspectives well and safely are to some extent different (Jones 1902; Osborne 1934; Holmes 1948; Pond 1949; Acheson 1949; Mackey 1954). The interplay of wildland fire management objectives, human requirements to meet objectives, human difference, and danger associated with the job (human survival), seemingly influence why wildland firefighters judge and repute one another.

These reasons are indicated in the wildland firefighting literature when authors discuss the selection of correct people for fireline positions (see Osborne 1934; Holmes 1948; Acheson 1948; Mackey 1954; Jones 1902; Caverhill 1926). Osborne (1934), for example, indicates that a very capable leader is needed to successfully manage wildland fire well. In reading the passage, consider that historical, societal views probably influenced gendered conceptions of who worked in leadership positions.

The attempt to fight a large fire without having an exceedingly capable man in charge invariably results in a gross waste of funds and usually in a total failure of the project. Considering how rapidly the cost of the work and damage is multiplied through small errors arising from inexperience, poor judgment or lack of administrative ability it becomes apparent that the best talent must be placed on the fire line. (P. 38)

This passage indicates that wildland firefighters possess different capacities at given times. It suggests that people can perceive wildland fire management objectives can be met to some extent of success or failure by acceptable and unacceptable behaviors. It

alludes that people can create knowledge about wildland firefighters' behaviors, judge wildland firefighter capacities, and use their knowledge and judgments to strategically position wildland firefighters to manage fire well and safely. The passage additionally suggests that wildland firefighters may not highly regard their counterparts if they create knowledge about them behaving 'badly' or 'abnormally'.

*Deviant wildland firefighter behavior.* Knowledge of counterparts behaving 'badly' or 'abnormally' in relation to ideal wildland firefighter behaviors can have implications for wholehearted trust among wildland firefighters. The trust can fracture; it can become weakened. Alternatively, the trust may not yet be granted. The next passages indicate human behaviors that wildland firefighters in this thesis generally did not value, which could drastically change the trust they granted to their counterparts and how they experienced risk. Seeing or hearing about counterparts who exhibited the behaviors could mean that wildland firefighters had difficulties wholeheartedly trusting them and granting them much respect. The passages illustrate perceived entity infractions. The first passage is by Mason.

Crew leader's not bad. I don't know, depends on who you have working for you. You can have some, bad apples they're called—that don't pay attention and don't want to listen very well. You have to deal with them after the fact. Then you got guys that want to work that are paying attention. They want to be safe too, and you're not just one guy wondering off. You have that all over. There's always the odd guy that wonders off and does his own thing.

The next passages are by Mason as well.

He's got a job here. He's getting paid. Doesn't want to be here. He takes every chance he can; plays sick just to go home. Yeah, those are the guys you don't want to work with because it brings moral down. Yeah, life is not fun when you have people working like that.

*Do you think it brings the moral down for everybody, or just you individually?*

From what I know, from my crew, they talk to me a lot, and they don't like it but they put up with it because he's not on our crew. If it were my crew, I'd deal with it differently. But how, I really don't know right now. But I'd make sure he was straightened out before anything like this happened. The problem is why he's still around.

*Have you ever asked about that?*

Yeah, I did. He's here for the money because if he had another job he wouldn't be here he said. But that tells you his character right there.

The next passage is by Sydney.

I just want my life to have some purpose. I want, you know, I don't want to just lead a meaningless life. I want to have said that I did something. Said that I contributed to this program. I want to be known as a smart guy and a good fire fighter and a good guy. I don't want to be known as a dumb shit and a lazy guy on the crew, or the guy who's annoying. I just want to be a better guy. Better myself.

The next passage by Quinn is about a counterpart who decided to fight a wildland fire that Quinn thought was too intense to fight.

*If you were at a fire with the person would you feel safe?*

Uh, depends if he believed he was leading the crew and took a leadership role. I would definitely question it. There are always different scenarios though. For the most part, I normally feel safe on a fire. But I feel that my responsibility is to watch my back just as much as everybody should be watching each other's back. So I don't know. I hope I'd feel safe being around him. But if I didn't, I feel like I'd be speaking up pretty quickly, even if it did lead to an altercation, or a disagreement.

*What attributes did the person display when they fought the fire?*

The person I feel displayed overconfidence. Overconfidence. And I wouldn't say clear thinking. I think he was trying to be, I don't know, I've heard other people say that he likes to try to be a hero and without their comments influencing my feelings, or, my own judgment calls, I feel like that's a pretty close description of him. He thinks he's a hero. Tries to be a hero and is overconfident. I feel like it's dangerous.<sup>28</sup>

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<sup>28</sup> It seems the word 'overconfident' can be attached to wildland firefighters who are perceived to have taken greater risks than those that are acceptable in relation to normal risk. Desmond (2007) seems to (narrowly) use the term courage to denote something

The next passage is by Blaire.

We just have one bad apple in our bunch probably. There's always one bad apple that sours up everybody. And he gets people going. I'm pretty sure he argued with at least, well, he argued with everyone, everyone at the base at least once this year...Everyone gets along with everyone at the base except for that one person. And we all pretend to like, well no, not pretend to like him, but we all try to get along with him—just so he won't argue with us kind of thing. Everything's cool over here except for that little part I guess. Well, it's not a little part. It pretty well affects everybody.

Like I feel sorry for the guys that are on his crew, because those guys, I don't know if they trust him, but he's a crew leader, and they have to listen to him I guess. And I told the boys, 'What if he puts you in a bad situation?' I asked them that. And I got them thinking about stuff like that, and he says, 'I don't know what we'd do'. 'Well, you guys should start thinking about stuff like that because maybe he will and he'll blame somebody else for it and he won't take responsibility. And what if he gets you guys entrapped or something?' Like, I'm scared for him too I guess. And I heard a story about next year that we're going to be switching crews, so if that happens, I'm going to speak up. Like, I'm going to bring up issues on his part. Well, I'm telling the boys just to sit down and talk to him. Not to be like, that kind of person, not to put him in any big danger or anything like that. I just told the boys to sit down with him and talk to him. But they don't want to. They're scared of him or something. So that's what I'd do if they put me on his crew. That's the first thing I'm going to do. Is sit down with probably the base supervisor, and him I guess, and probably whoever's on his crew, and I'll try and talk to him about not trying to be such a hardass all the time and see if we can get along for at least a season without anyone arguing or something. I'll bring something up. I'll talk to somebody about it and whatnot. And I'll make him sit there and if he doesn't want to listen, well, I'll just say I don't want to work with him if he doesn't want to do anything like that—like be a team player kind of thing. And I'll just refuse to work with him, which I'm pretty sure we have the right to do. So I'll just talk to the supervisor about it and let him know how I feel.

As these passages suggest, granting wholehearted trust to counterparts is difficult and relationships can suffer when wildland firefighters perceive that their counterparts normally exhibit 'bad' and 'abnormal' behaviors.

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similar. Eriksen and Waitt (2016) seem to use the word bravado to denote something similar, although they associate bravado with a firefighting masculinity.

In relation to wildland firefighting, the interview data for this thesis indicates that wildland firefighters generally disrespected and had difficulty trusting their counterparts who they perceived were overconfident, incompetent, and ignorant. The same consequences could result if wildland firefighters perceived that their counterparts were unwilling to learn, teach, listen, and assist as team members, or if their counterparts were perceived to unjustifiably complain, argue, blame, and discipline. Associated with unjustified blame, the wildland firefighters could disrespect and have difficulty trusting their counterparts who they perceived were incapable of fairly accepting responsibility for their actions. The same consequences could appear when wildland firefighters perceived that their counterparts were physically unfit and unable to do the job, too often lost emotional and cognitive control under stress and pressure (when unwarranted), made bad decisions, and were indecisive. Those who unjustifiably took off many days of work, who demonstrated a lacking sense of duty to show up to work for the team, were difficult to respect and trust. The wildland firefighters in this thesis generally thought that it was a ‘bad’ thing to be known as a wildland firefighter who generally exhibited these behaviors. The exhibitions could tarnish one’s reputation because wildland firefighters could perceive that the behaviors may potentially put them at greater risk.

*Fractured trust and its consequences.* Thus, perceiving counterparts behaving ‘badly’ and ‘abnormally’ could fracture trust. The perceptions could influence how wildland firefighters experienced risk, including the emotions they felt. If the behaviors were not addressed, knowledge about them could influence future actions among wildland firefighters. Such knowledge could create some uncertainty for wildland firefighters about future action from a lack of knowledge about how the ‘badly behaved’

counterpart would affect future outcomes. Because of this, a wildland firefighter's overall confidence could become unstable to a degree, which could inspire the wildland firefighter to feel scared, as was suggested in Blaire's passages about the 'bad apple'. The person may anticipatorily transform risk to appear less controllable.

Single serious behavioral infractions in a situation can fracture trust and cause relationships to suffer as well. This was suggested by the passages about Reagan's former crew leader almost burning. The next passage by Quinn suggests a situation in which a serious behavioral infraction impacted trust.

At the [Black Spruce Fire] last year I held trust in my whole crew and we all witnessed a failure of trust there. One person really made a mess out of what could've been an easy, simple initial attack; made it dangerous for us and himself and that's something that I've—I won't go into much more detail than that. But ever since then I haven't trusted that individual and I know he's broken trust of many fire fighters around that base.

*How did the situation make you feel?*

I was quite upset for a couple hours after that. A little bit stirred up. I got over it because I knew I was going to be fighting fire for the next twelve days.

The next passage by Evan suggests another situation in which a serious behavioral infraction impacted trust.

With the one crew boss, I can't remember his name, I think he was from [Rock Lake] or something, but he didn't know his crew, so that kind of screwed things up. Ah, what the hell happened again—we had to run from a fire anyway that day. And then they all started calling him down or whatever and he didn't want to be the crew boss any more, like in the middle of a fire, or in the middle of a little tour. I don't know, it kind of sucked, so there was really no crew boss kind of thing, because he would always take off. I'd still lay line and whatever, I'd still do my job. I think I had my brother with me so I had to kind of teach him. He was the nozzle guy and I was just showing him step by step by step and all the other guys were off somewhere doing whatever. And, you know, there was no order, or, I don't know, it was just chaotic.

As preceding passages indicates, exhibitions of ‘bad’ behaviors can greatly impact trust and how risk is experienced. It appears, however, that pardons are sometimes granted for behavioral infractions. Sometimes weakened trust can re-strengthen when pardons are granted. The interview data for this thesis suggests that pardons were granted for behavioral infractions depending on the perceived severity of the ‘mistake’, whether a person was perceived to fairly take responsibility for their actions, the types of ‘mistakes’ in relation to a person’s position in being and becoming a wildland firefighter; and whether a person used the ‘mistake’ as a learning experience. If wildland firefighters generally exhibited ideal wildland firefighter behaviors before and after counterparts perceived their behavioral infractions, their counterparts sometimes pardoned the ‘bad’ and ‘abnormal’ behaviors.

The next passages by Sydney suggest that the ‘bad’ behaviors of very new wildland firefighters are sometimes pardoned by older wildland firefighters since the latter are usually highly aware that the former are learning something new and are bound to make some ‘mistakes’.

You got to trust the guy who’s standing behind you and he’s got to trust you too. Because if he’s in danger and I see it, and he doesn’t see it, I got to make the call and tell him. Pull him out of there. Same with the pilots. They are some of the most knowledgeable guys I know. We had a pilot that came to our base every year, same pilot, every year, same machine, and he’s a smart guy, the smartest guy I know. He knows everything about wildland firefighting. But yeah, same with the crews, right down to the last guy to the pump man and the crew leader. You got to have trust in everybody otherwise it’s not going to go very good.

*How come?*

Well, you know, when somebody gives you, say they give you a job order and the guy doesn’t do it, and the fire blows up on you. You know, you got to have that trust in the guy that he’s going to go get the job done and not have to worry about fire coming up on us.

*Have you ever had somebody not get the job done?*

I had a few guys, like, mainly rookies that don't really know how to work hotspots on the fireline. It kind of jumped the fireline and we had to take care of it again. But it was just minor, little incidents like that.

*Did that affect your relationship with them?*

In a good way. In a good way. Afterwards I showed them how to work hot spots and showed them how to run a hose line and where to leave it so it doesn't get burnt up. At the end of the tour, they always say, 'Thank you for watching out for me out there', the same way my very first crew leader was. He said, 'Don't worry about a thing, I'll take care of you', and that's how I feel about all my firefighters when I come out here. I say, 'Don't worry, I got your back, I'll take care of you. You don't have to worry about a thing'.

These passages suggest that older wildland firefighters can sometimes easily pardon some 'mistakes' of very new wildland firefighters. Because older wildland firefighters usually sense a duty to teach, they sometimes take responsibility for newer wildland firefighter's 'mistakes'. The passages also suggest that pardons are granted differently in relation to a wildland firefighter's ideas about a counterpart's position in being and becoming a wildland firefighter.

Although very new wildland firefighters can be pardoned for many behavioral infractions quite readily, any wildland firefighter, especially crew leaders, are generally not pardoned for behavioral infractions that seriously put life at risk. Reagan's story about the former crew leader almost burning indicates this, as does Evan's story about running from fire and the crew leader being 'called down'. When wildland firefighters perceive that their counterparts are responsible for making 'mistakes' that put them at serious risk, their reputations can be nearly obliterated among some wildland firefighters, and pardons may never be granted or wholly granted.

This discussion is comparable to Lupton's (1999) assertion that to "take unnecessary risks is commonly seen as foolhardy, careless, irresponsible, and even 'deviant', evidence of an individual's ignorance or lack of ability to regulate the self" (p. 148). As interview data in this chapter suggests, when individual wildland firefighters, wildland firefighter groups, and particular members of wildland firefighter groups were perceived to behave 'badly' or 'abnormally', taking what were considered unnecessary risks, wildland firefighters sometimes saw them as foolhardy, careless, irresponsible, and deviant, viewing their actions as evidence of their ignorance or lack of ability to regulate themselves properly in relation to the situations they were in.

*Trust in the organization.* Data in this thesis suggest that trust could fracture from individual to individual, individual to group, and group to individual by knowledge that 'bad' or 'abnormal' behaviors were exhibited. Trust could also fracture from individual to organization and group to organization.

Akin to wildland firefighters coming to better gauge their counterparts' behaviors with time, some wildland firefighters came to better gauge their organization's behaviors with time. Generally, the interview data for this thesis suggests, wildland firefighters wholeheartedly trusted the organization early in being and becoming wildland firefighters since they lacked much knowledge about the organization and managing wildland fire. As they created more knowledge with time, the behavioral trust they granted the organization changed.

For example, considerable organizational change occurred during the last decade since I started working for WFMB, which seems to have decreased wildland firefighter trust in the organization. The organization cut many supervisory positions at firebases, 38

Type 1 Fire Fighter positions, and 40 fire tower observer positions (SGEU 2016). Fire towers were equipped with infrared cameras for the 2014 fire season to detect wildland fires. There are no longer people who work in fire towers in Saskatchewan. Few people were hired to monitor live video footage in a detection center. Of the 38 Type 1 Fire Fighter positions, less than half were replaced in the spring of 2016, which was possibly an outcome of the 2015 fire season. The Saskatchewan Government and General Employees' Union (SGEU) referred to the fire season as: "Wildfire Crisis 2015" (SGEU 2015).

In the last six years to April 2016, SGEU suggests WFMB's budget was cut by 45 percent (SGEU 2016). In addition, in association with CIFFC, WFMB instituted a new Type 1 Fire Fighter fitness test in April 2012 that SGEU suggests resulted in "eliminating many career firefighters", and in "injuries through the testing process that impacted employee's careers" (SGEU 2016; CIFFC 2011). In May 2012, SGEU grieved the implementation of the new fitness test; four grievances went to arbitration from April through August 2015. In December 2015, arbitrator Daniel Ish deemed that the new fitness test, developed primarily by kinesiology and health science professors and graduate students from York University (Jamnik, Gumienak, Gledhill 2013; Gumieniak, Jamnik, Gledhill 2013), was "discriminatory and...not a bona fide occupational requirement because the cut-score as set has a potential discriminatory adverse impact on females and older males" (SGEU 2016). The government "applied for a judicial review" in January 2016 (SGEU 2016).

These are some examples of organizational behavior that many WFMB wildland firefighters of the past decade heard about, dealt with, and discussed. As suggested,

SGEU is a medium, as are news outlets, former and current government employees, training content, schools, policy, and separate wildland fire management organizations, through which wildland firefighters can create knowledge about WFMB behaviors.

Some wildland firefighters who experienced the organizational changes considered that they negatively impacted the program. The wildland firefighters thought the changes decreased the organization's strength in managing wildland fire well and safely. Reagan suggests this through the next passage.

When I first started it was more the love of the job, like it was just a blast, like you felt like you accomplished something and that everybody's cheering for you. Nobody wants to see you fail kind of thing. Now, I don't know, the politics end of it is just the shittiest part of it. Definitely. I don't have the same feeling as I used to for it. Like, I still enjoy it. But I wouldn't say I do like I used to.

*What do you mean by the politics?*

I don't know. There's always just shit going on. Like, I don't know, decisions from higher up the chain. Like, they just, I don't know. Like when they instituted this new fitness test for example, they basically cut a lot of the experience out of the program, which is, I don't know—shit like that just bugs me. It's like we're all just numbers. All we are to them is our employee number. Like they really don't care. That kind of bugs me. Yeah they have to fight the fire with pen and paper and you know worry about the economic side of it, but realistically, we're the guys that put it out. And it's not like it's a totally safe environment that we work in. That experience, it speaks volumes. I don't know. Shit like that just bugs me I guess—that, and the towers. Just the way that they—the bottom end of it is just the fucking bottom end it seems like. I don't know. Shit like that kind of bugs me I guess.

*What do you mean by the bottom end?*

Just like we're the bottom end of the totem pole and it seems like all the cutting happens on the bottom end of it. Where really, we should be the support system to the entire program.

Through these passages, Reagan indicates that WFMB's implementation of the new Type 1 Fire Fighter fitness test largely eliminated, at the organizational level, something that

wildland firefighters in this thesis greatly valued: wildland firefighter experience (knowledge).

Some workers at WFMB would argue that one outcome of losing many very experienced wildland firefighters to the fitness test was that those with experience who passed the test were required to work with an influx of very new, minimally experienced wildland firefighters. They would also argue that this generated greater pressures and responsibilities for wildland firefighters who were expected to ensure the safety of their counterparts. Reagan suggests this in the next passage.

I think it all just comes down to the safety end of it. Like I want everybody to go home at the end of the day. You know, like that's the end of it. Like, when I said earlier about, you know, all the experience being cut out of the program, no matter who you are working with, how you always want them to be thinking, I guess that's the end of it that I feel the most responsible for. And I probably shouldn't. But, I don't know, it's just the safety of it all. You just want everybody to fucking be good at what they do and come home safe pretty much.

This passage indicates that some wildland firefighters considered that the organization was partly responsible for ensuring wildland firefighter safety. This is quite different from assertions about responsibility made by Desmond (2007) and Lupton (1999).

Nonetheless, some people would argue that WFMB's implementation of the new fitness test, budget cuts, employee retention problems, position cuts, and lack of firefighting equipment in the last decade led to the mismanagement of wildfires in 2015 (SGEU 2015). One might say, from such management decisions, some of which were likely made in close consultation with politicians, WFMB has a smaller number of employees to select from for worker succession; employees undertake positions without the required knowledge and ability; and, employees are required to undertake much more

work, occasionally the work of many positions, which induces fatigue quickly.<sup>29</sup> For these reasons, one might also say, that although WFMB greatly complies with legislative health and safety requirements, its' leaders decisions made managing wildland fire riskier for wildland firefighters. If this were the case, then its' leaders decisions would be vastly influencing how wildland firefighters are experiencing risk.

Some people, however, might argue, or also argue, that WFMB implements risk-decreasing measures such as: policy that permits wildland firefighters to workout each day; policy about wildland firefighters taking time off work to rest; policy about conducting daily safety briefings; policy about how many days and hours employees can consecutively work; policy about personal protective equipment; processes to predict wildland fire and to strategically position wildland firefighting resources; and, wildland firefighter training. However, if the one who says that management decisions made the job riskier for wildland firefighters very accurately assessed the situation, then the system of wildland firefighter trust I showed in this thesis would be undergoing powerful shocks. Generally, risk for all wildland firefighters may be increased and concealed for some time.

Do many WFMB wildland firefighters perceive that their counterparts possess more knowledge about managing wildland fire than they actually do? Do many WFMB wildland firefighters perceive that their counterparts are making good decisions when they actually are not? Do many very new WFMB wildland firefighters quickly and wholeheartedly trust an organization that has made decisions that are putting them in

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<sup>29</sup> I moved up in the organization very fast. I was part of the last generation of wildland firefighters to work with a group of longstanding wildland firefighters who are no longer employed.

greater danger? Given how wildland fire is ordinarily and currently approached globally, such questions are plausible for different contexts. One might say, in the ordinary and current context of WFMB, such questions take on their own meaning.<sup>30</sup>

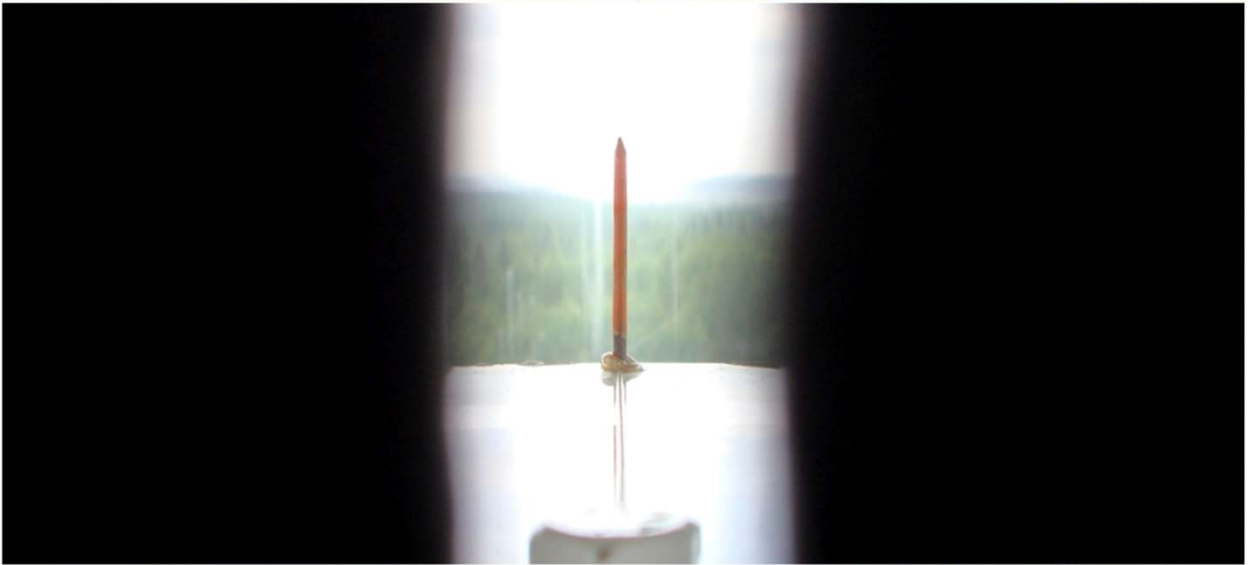
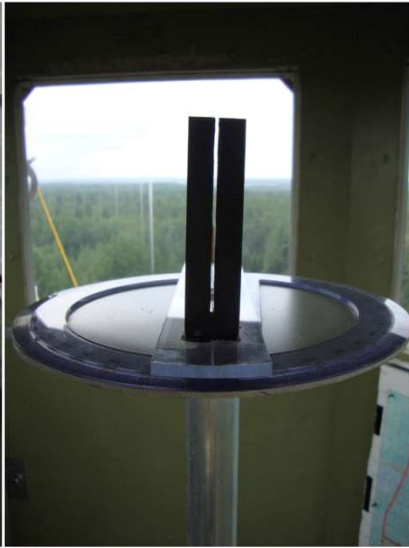
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<sup>30</sup> This discussion relates to Desmond's (2007) assertions about crewmembers learning and accepting USFS symbolic struggles through which they came to "identify with", "trust", and have "confidence" in the USFS (p. 140/118). Although in this thesis interview data suggested that many wildland firefighters wholeheartedly trusted WFMB early in being and becoming wildland firefighters, as they gained knowledge about managing wildland fire and the organization, some wildland firefighters' wholehearted trust in WFMB partly fractured. Wildland firefighters in this thesis learned similar ideas about managing wildland fire that Desmond's crewmembers learned, such as perspectives about prescribed burning and fuel management, but some did not fully agree with the organization's perspective. For example, some disagreed with position cuts (and fire response zones). Thus, the trust many wildland firefighters granted WFMB generally seemed less stable than the trust Desmond's crewmembers granted the USFS.









## Chapter 8: Conclusion

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From the outset of this project, I wanted to understand how wildland firefighters constructed a sense of self in relation to risk. I provided an interpretation in this thesis. In using the risk taking and wildland firefighting literatures, as well as interview data and personal stories, I proposed ideas about the identities and backgrounds of wildland firefighters, and why people undertook wildland firefighting. I suggested a general trajectory of being and becoming a wildland firefighter that was centered on risk, knowledge, and trust, which supplemented a deficiency in the risk taking and wildland firefighting literatures. In association with the self-trajectory, I indicated how wildland firefighters could experience risk based on career stages. I argued that in the process of being and becoming a wildland firefighter risk is sometimes increased, decreased, concealed, revealed, and anticipatorily transformed through trust. I showed how this relates to individual wildland firefighters in relation to their career stages and to groups of wildland firefighters.

### RESEARCH LIMITATIONS

Despite providing an interpretation of wildland firefighter self-construction, there were limitations to the research. Firstly, there were potential limitations in how accurately I interpreted interview data. It is possible that I misinterpreted the words of some wildland firefighters. The intended meanings of the words and why they were said may have partially evaded my interpretation. This is a limitation for all research that involves interpreting others' words. An example may show this point. The next passage was spoken by a wildland firefighter in one of two interviews.

Starting of the season, I was questioning why I'm still here. But then once the fires starting kicking in, you know, I started getting my love back for the job. And

it makes me appreciate the stuff I get to see. I get to see stuff that people never, ever dream for, sceneries like this. It's a real good job. I get to see a lot of places, a lot of people. And, you know, it gives me a lot of opportunity to learn and improve myself as a firefighter, and as a person.

*Why were you hesitant to come back at the beginning of the year?*

It was more or less just money issues. I wasn't too sure if I could get by. But, I managed to get things, you know. It wasn't really a hesitant thing, it was just the first day I got back, it was seeing all the new faces and seeing all the old faces gone, it kind of made me feel like maybe I should move on too. But then again, I can't just leave my crew and my guys like that who don't have the experience.

*So you feel like you are a part of something larger at your base or something?*

I just feel like I don't want to disappoint them by turning my back on them kind of thing, like, you know. I see a lot of people come and go and it's sad to see them go and I imagine it would be sad to see me go too. I would hate to see them leave too. So, it's like we're a big family back at the base and it's kind of a sad, sad time at the end of the season when everything's winding down and you're just wondering if you're ever going to get to see these people again.

After a second interview several days later, the wildland firefighter and I were walking through the forest and I was told the 'real' reason for questioning returning to the job. The discussion was unexpected for me. I heard that the wildland firefighter's 'girlfriend' was murdered before the fire season started. I was told I could include the story in the thesis. Nevertheless, in later looking at interview notes and transcripts I read the passages above. Then I read them many more times. Their meanings kept changing. Behind the words may be something I would have never known and do not know. Thus, interpreting others' words can sometimes impart very limited and highly inaccurate meanings.

My interpretation of wildland firefighters was limited to interview data from 14 people. Although I saw patterns in the data from one interview transcript to another in relation to general stages in being and becoming a wildland firefighter, had I interviewed more people, my interpretation would possibly have been different.

The homogeneity of the wildland firefighters may have limited my interpretation as well. For example, most wildland firefighters in the thesis self-identified as ‘male.’ They also worked for the same organization. Examining a more heterogeneous group of wildland firefighters might have changed my interpretation.

Finally, there are influential parts of being and becoming a wildland firefighter that I was unable to fully examine in the thesis. My interpretation could have included greater analysis about place, death, and the body in relation to how wildland firefighters can change and experience risk.

#### EMPIRICAL CONTRIBUTIONS

Although there were limitations to the research, the thesis provided empirical contributions to the risk taking and wildland firefighting literatures in Chapters 6 and 7. Data in Chapter 6 complement the literatures on the themes of backgrounds and identities and why people are influenced to undertake dangerous occupations. Significantly, on the backgrounds of wildland firefighters, I presented interview data that indicated Desmond (2007) appears to have exaggerated the importance of rural, working class, country-masculine upbringings in being and becoming a wildland firefighter. Many wildland firefighters in this thesis were very good at their jobs regardless of the circumstances in which they grew up. Relatedly, I suggested that one’s ability, capacity, passion, current life circumstances, and experience greatly determine whether they were and became ‘good’ wildland firefighters. I also showed interview data that indicated wildland firefighters experienced danger in activities growing up, which taught them helpful skills in being and becoming wildland firefighters. In the activities they learned something

about avoiding risks. Similarly, I suggested that although wildland firefighters may take on more danger than other people, like other people, they generally try to avoid risk.

On the identities of wildland firefighters, I extended Desmond's (2007) ideas about place-based identity categories. I showed that many wildland firefighters possessed attitudes about their counterparts based on where they were from, specifically, about what the places gave to them. On why wildland firefighters undertook a dangerous occupation, the interview data revealed additional reasons to the risk taking and wildland firefighting literatures such as their schooling circumstances, the places where they live, and the idea that the job would help them acquire employment elsewhere. In my discussions on these themes, I suggested that the interview data highly question Lyng's (1990) suggestion that people undertook dangerous occupations in opposition to the constraints of modernity.

Data in Chapter 7 complement the risk taking and wildland firefighting literatures by showing the importance of trust and knowledge in being and becoming someone who addresses risk with other people. The interview data revealed a general trajectory of being and becoming a wildland firefighter by relations of trust, but that wildland firefighters can sometimes experience risk differently from what is expected along the self-trajectory. Also of importance, the interview data suggested that trust was not necessarily something that was only gained with time (Desmond 2007), but that it was also something situations can demand. Moreover, trust changed with time and was occasionally granted to an entity before the grantor created much knowledge of the entity. The interview data challenged many assertions in the literatures about responsibility and risk as well. Whereas the literatures tended to suggest people generally possessed the attitude that individuals were responsible for ensuring their own safety from risk, the interview data suggested that

wildland firefighters considered they were individually responsible for ensuring their own safety from risk, the safety of others from risk, and that others were as well. Addressing risk was a shared responsibility, although some wildland firefighters carried greater organizational responsibility for ensuring the safety of others. Moreover, interview data suggested that some wildland firefighters considered that their organization was partially responsible for ensuring their safety from risk. In addition, I showed interview data that suggested Lyng's (1990) notions about the illusion of control were highly problematic. The interview data showed that: people can gain very accurate knowledge about danger and use it to minimize danger; people who are coming to possess more knowledge about danger may gain more control of themselves and their external situations by the knowledge, thereby making the control they sense in risk taking less illusory; and, people in risk taking may be very accurately sensing control from moment to moment that is not largely illusory. These ideas greatly differ from Lyng's (1990) on the illusion of control as well as Desmond's (2007) on the illusion of self-determinacy. The data showed that wildland firefighters rarely further developed an illusion of control over events that were largely chance determined. They rather knew, or came to know that there was always danger to the self in situations, but that behaving in specific ways could control some of it.

## THEORETICAL CONTRIBUTIONS

In addition to empirical contributions, the thesis provided theoretical contributions to the risk taking literature and social research more broadly. In association with the risk taking literature, I created an early stage theory of assessing and addressing risk centered on knowledge creation and trust. In doing so, I showed interrelated concepts of trust (self-

confidence, behavioral trust, wholehearted trust, and mutual trust) and knowledge (local knowledge, language knowledge, perspective knowledge, facility knowledge). I demonstrated the concepts were subject to time and place. The concept of behavioral trust partially resulted from interpreting interview data and using a theoretical framework in which I blended ideas from Simmel ([1911/1919] 1959) and Goffman (1967b). I used the framework and interview data to suggest how wildland firefighters came very close to sharing values about human behaviors, reasons and approaches for evaluating human behaviors, the importance given to specific human behaviors, and values about specific combinations of behaviors. Relatedly, I extended Simmel's ([1911/1919] 1959) concept of adventure by showing how wildland firefighters usually change after they experienced and rationally analyzed life in the context of managing wildland fire. I demonstrated how wildland firefighters created knowledge, which permitted a more future oriented focus in the immediate present towards achieving the goals of managing wildland fire. I briefly suggested how habits were formed and how emotions could change.

In association with contributions to social research more broadly, I developed a critique of existing theories that are centered on identity categories, and provided an alternative possibility for examining identity. I alluded that starting from the basis of what it means to be human, rather than from an identity category, might allow social researchers to produce more holistic, accurate, and less divisive interpretations of life. Beginning with what it means to be human and thereby removing identity categories appears to show just how similar people are.

At the theoretical level, I suggest social researchers begin from the question 'what is it to be human,' before they invoke identity categories into their analyses. Moreover,

when social researchers speak of identity categories, they should show similarities and differences between and among their categorized people. While I did not develop a theory of identity within these terms, I have pointed a way to the development of a theoretical perspective that could possibly provide a more holistic perspective of identity.

#### METHODOLOGICAL CONTRIBUTIONS

The thesis also contributes to research methods literatures. As shown in Chapter 6, people can use their knowledge to provide more holistic interpretations of interviewee's words. For example, I used my knowledge of the little town where Mason lived to portray a more holistic image of life for the people from the little town. This is potentially an advantage of blending some assumptions from 'narrative inquiry' and 'autoethnography' in research approaches. Specifically, I advise that the Listening Guide readings can be enhanced when readers possess some relevant knowledge about how the people they are reading about have lived their lives. When Mason proclaimed 'we' in reference to how people experienced life in the little town, I knew something about what Mason was talking about.

Related to this discussion, I advise that social researchers try as much as they can to understand the history and context of what they research. This is not a new insight. But it demands some discussion. It directly relates to the accuracy of one's assessment. For example, I have repeatedly suggested that Pacholok's (2009) linking of remaining calm in crisis to masculinity and masculine values is greatly unjustified. In different parts of Pacholok's (2009) article, interpretations of interview data appear greatly unjustified as well. It is clear to me, for example, that Pacholok misinterprets interview data in suggesting that firefighters who take the most risks are the most masculine, and that this

is valued among them (p. 491). It is also clear to me that Pacholok misinterprets interview data about methods of addressing structural fire and wildland fire in linking the methods to ideas of aggression, activity, passivity, femininity, and masculinity (p. 492). Pacholok lacks knowledge about what can be done in relation to fire. In other words, Pacholok lacks context within which to interpret the data from the study. Nevertheless, such interpretations show that when people lack historical and contextual understandings of what they research, their interpretations of data can be highly inaccurate.

### PRACTICAL CONTRIBUTIONS

In addition to the thesis making empirical, theoretical, and methodological contributions to various literatures, it makes practical contributions to wildland fire management organizations and their workers. The early stage theory of risk taking, which includes ideas about assessing how wildland firefighters can experience risk at the individual, group, and organizational level, can potentially be used to make the work of managing wildland fires safer. The theory may be useful despite the perspectives that are used to address wildland fire. Associated with these ideas, the thesis begins to show some impacts of fractured trust. I suggest that wildland fire management organizations and their workers take the idea of fractured trust seriously and work to address very distinct issues of fractured trust that arise as soon as possible. Allowing one's 'bad' behaviors to persist unaddressed, for example, could put many people at risk. Similarly, I also advise that when people undertake dangerous occupations they should attempt to learn about the worlds they have entered as much as and as quickly as possible.

## FUTURE RESEARCH

As I suggested in the research limitations section, there are influential parts of being and becoming a wildland firefighter that I was unable to fully examine in the thesis. Future research should extend the early stage theory of risk taking I proposed by further analyzing place, death, and the body in relation to how wildland firefighters can develop and experience risk. Tulloch and Lupton (2003) suggest that how “acculturation into particular spaces and places contribute to risk understandings” has not been examined with much detail (p. 134). In following these calls for research in the context of wildland firefighters, future research should examine how wildland firefighters come to use their bodies and fire behavior predication systems to anticipate, address, and experience risk. In the Canadian wildland fire management context, with the Canadian Forest Fire Danger Rating System (CFFDRS), future research could examine how people come to create mental maps of landscapes (knowledge of fuel types, topography, etc.) and visions of future wildland fire in certain places of landscapes and how they would deal with the wildland fire. The research should seek to express the remarkable relationship of using one’s body in specific locations in relation to CFFDRS outputs about the dryness of fuels and what this means for people in predicting their futures. Including the concepts of knowledge and trust that were in this thesis could enhance the research.

Future research should also examine death and ‘close calls.’ The risk taking literature tends to greatly focus on ‘risk takers’ processing the deaths of their counterparts by blaming them in some way for dying (e.g., Lyng 1990; Desmond 2007). This seems limited and sometimes problematic. Future research should examine how attitudes about

death and processing death can change with time among people who take risks as well as how people change with time by learning from close call stories and close calls.

Finally, future research should further examine the body in relation to wildland fire management, especially how physiological states can influence the accuracy of wildland firefighters situational assessments. Another promising area for future research involves examining the more or less subliminal features of managing wildland fire that impact how wildland firefighters experience risk (e.g., the emotions wildland firefighters experience are to some extent influenced by the weather).



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## Appendix

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### Appendix A. Glossary

Unless indicated with an asterisk, the following definitions are verbatim from: (CIFFC 2003).

**Airtanker** - A fixed-wing aircraft fitted with tanks and equipment for dropping suppressants or retardants on fires.

**Attack** - The actual physical fire fighting operation.

**Burning Conditions** - The state of the combined components of the fire environment that influence fire behaviour and fire impact in a given fuel type. Usually specified in terms of such factors as fire weather elements, fire danger indexes, fuel load, and slope.

**Bushfire season\*** - Some firefighters used this term to signify 'the true fire season,' when fires started in the forest by lightning.

**Control Line** - A comprehensive term for all constructed or natural fire barriers and treated fire perimeter used to control a fire.

**Convection Column** - The definable plume of hot gases, smoke, firebrands, and other combustion by-products produced by and rising above a fire.

**Dispatch** - The implementation of a command decision to move a resource or resources from one place to another.

**Drip Torch** - A hand-held incendiary device that releases slow-burning flaming fuel at a predetermined rate.

**Entrapment** - Entrapment occurs when fire fighters are in danger of being burned over.

**Fire Behaviour** - The manner in which fuel ignites, flame develops, and fire spreads and exhibits other related phenomena as determined by the interaction of fuels, weather, and topography.

**Fire Bombing** - An air attack operation involving the use of aircraft to drop suppressants or retardants to suppress or retard the spread of forest fires.

**Firebrand** - A piece of flaming or smouldering material capable of acting as an ignition source.

**Fire Cycle** - The number of years required to burn over an area equal to the entire area of interest.

Fire Detection - A system for or the act of discovering, locating, and reporting wildfires.

Fire Ecology - The study of the relationships between fire, the physical environment, and living organisms.

Fire Effect(s) - Any change(s) on an area attributable to a fire, whether immediate or long-term, and on-site or off-site. May be detrimental, beneficial, or benign from the standpoint of forest management and other land use objectives.

Fire Environment - The surrounding conditions, influences, and modifying forces of topography, fuel, and fire weather that determine fire behaviour.

Fire Frequency - The average number of fires that occur per unit time at a given point.

Fire Incidence - The average number of fires started in a designated area during a specified time.

Fire Interval - The average number of years between the occurrence of fires at a given point.

Fireline -

- (1) That portion of the fire upon which resources are deployed and are actively engaged in suppression action. In a general sense, the working area around a fire.
- (2) Any cleared strip used to control a fire.

Fire Management - The activities concerned with the protection of people, property, and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social, and economic criteria.

Note: Fire management represents both a land management philosophy and a land management activity. It involves the strategic integration of such factors as knowledge of fire regimes, probable fire effects, values-at-risk, level of forest protection required, cost of fire-related activities, and prescribed fire technology into multiple-use planning, decision making, and day-to-day activities to accomplish stated resource management objectives. Successful fire management depends on effective fire prevention, detection, and presuppression, having an adequate fire suppression capability, and consideration of fire ecology relationships.

Fire Occurrence - The number of fires started in a given area over a given period of time.

Fire Prevention - Activities directed at reducing fire occurrence; includes public education, law enforcement, personal contact, and reduction of fire hazards and risks.

Fire Regime - The kind of fire activity or pattern of fires that generally characterize a given area. Some important elements of the characteristic pattern include fire cycle or fire interval, fire season, and the number, type, and intensity of fires.

Fire Retardant - A substance that by chemical or physical action reduces flammability of combustibles.

Fire Season - The period(s) of the year during which fires are likely to start, spread, and do damage to values-at-risk sufficient to warrant organized fire suppression; a period of the year set out and commonly referred to in fire prevention legislation. The fire season is usually further divided on the basis of the seasonal flammability of fuel types (e.g. spring, summer, and fall).

Fire Suppression - All activities concerned with controlling and extinguishing a fire following its detection.

Fire Whirl or Fire Whirlwind - A spinning, moving column of hot air and gases rising up from a fire and carrying aloft smoke, debris, flame and firebrands. These range from less than one metre to several hundred metres in diameter. They may involve the entire fire area or only hot spots within or outside the fire perimeter.

Forest Protection - That branch of forestry concerned with the prevention and control of damage to forests from fire, insects, disease, and other harmful agents.

Front - In meteorology, the boundary between two air masses of different density. A cold front represents the leading edge of colder air replacing warmer air; the reverse of this is a warm front.

Frontal Fire Intensity - The rate of heat energy release per unit time per unit length of fire front. Flame size is its main visual manifestation. Frontal fire intensity is a major determinant of certain fire effects and difficulty of control. Numerically, it is equal to the product of the net heat of combustion, quantity of fuel consumed in the flaming front, and linear rate of spread. Recommended SI unit is kilowatts per metre (kW/m).

Fuel Type - An identifiable association of fuel elements of distinctive species, form, size, arrangement, and continuity that will exhibit characteristic fire behaviour under defined burning conditions.

Heat Transfer - The process by which heat is imparted from one body or object to another. In forest fires, heat energy is transmitted from burning to unburned fuels by:

Convection - Transfer of heat by the movement of masses of hot air; the natural direction is upwards in the absence of any appreciable wind speed and/or slope.

Radiation - Transfer of heat in straight lines from warm surfaces to cooler surroundings.

Conduction - Transfer of heat through solid matter.

Helibucket - A specially designed rigid or collapsible container slung by a helicopter and used for picking up and dropping suppressants or retardants on a fire. Size of bucket load is compatible with the size of helicopter.

Helispot - Any designated location where a helicopter can safely take off and land. Some helispots may be used for loading of supplies, equipment, or personnel.

Hot Spot -

(1) A particularly active part of a fire.

(2) A small area of smouldering or glowing combustion, which may be exhibiting smoke, located on or within the fire perimeter; a term commonly used during the mop-up stage of a fire.

Incident - An occurrence either human caused or by natural phenomena, that requires action by emergency service personnel to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Command System (ICS) - A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

Initial Attack - The action taken to halt the spread or potential spread of a fire by the first fire fighting force to arrive at the fire.

Lookout -

(1) A person designated to detect and report fires from a vantage point.

(2) A location and associated structures from which fires can be detected and reported.

Lookout Cupola – A small building normally constructed with glass walls or windows permitting an unobstructed view on all sides, but not designed for living quarters. It may be located on a lookout tower, or other artificial or natural elevation.

Lookout Tower - A tower built to raise a lookout above nearby obstruction to sight. It is usually capped by a lookout cupola.

Mop-up - The act of extinguishing a fire after it has been brought under control.

Nomex\* - A flame resistant fiber used in wildland firefighter clothing (and other products). Some wildland firefighters call the parts of their uniforms made with Nomex: 'their Nomex'.

Patrol -

(1) To inspect a section of a control line or portion of the fire perimeter to prevent escape of the fire.

(2) To travel a given route to inspect, prevent, detect, and suppress fires.

Personal protective equipment (PPE) - Any piece of equipment or clothing designed to be used to protect the health and/or safety of an individual.

Prescribed Burning - The knowledgeable application of fire to a specific land area to accomplish predetermined forest management or other land use objectives.

Presuppression - Those fire management activities in advance of fire occurrence concerned with the organization, training, and management of fire fighting force and the procurement, maintenance, and inspection of improvements, equipment, and supplies to ensure effective fire suppression.

Rate of Spread (ROS) - The speed at which a fire extends its horizontal dimensions, expressed in terms of distance per unit of time. Generally thought of in terms of a fire's forward movement or head fire rate of spread, but also applicable to backfire and flank fire ROS. Recommended SI units are metres per minute (m/min) and kilometres per hour (km/h) (1.0 m/min is equivalent to 0.06 km/h).

Relative Humidity (RH) - The ratio, expressed as a percentage, of the amount of water vapour or moisture in the air to the maximum amount of moisture that the air would hold at the same dry-bulb temperature and atmospheric pressure (RH can vary from 0 to 100%). For example, 60% RH means that the air contains 60% of the moisture it is capable of holding. Popularly called humidity.

Resources - Personnel and equipment available, or potentially available, for assignment to incidents. Resources are described by kind and type, e.g., ground, water, air, etc., and may be used in tactical support or overhead capacities at an incident.

Rotor Downwash - The air turbulence occurring under and around the main rotor system(s) of an operating rotary-wing aircraft.

Safety Zone - A safety zone is a location where fire fighters can shelter from threatening fireline hazards

Skimmer - Any aircraft equipped to pick up water while in motion on or over water.

Snag - A standing dead tree or part of a dead tree from which at least the smaller branches have fallen.

Spot Fire -

(1) A fire ignited by firebrands that are carried outside the main fire perimeter by air currents, gravity, and/or fire whirls.

(2) A very small fire that requires little time or effort to extinguish.

Stages of Control -

Out of Control - Describes a wildfire not responding or only responding on a limited basis to suppression action such that perimeter spread is not being contained. Synonym - Not Under Control.

Being Held - Indicates that with currently committed resources, sufficient suppression action has been taken that the fire is not likely to spread beyond existent or predetermined boundaries under prevailing and forecasted conditions.

Being Observed - Currently not receiving suppression action, due to agency policy and management guidelines.

Under Control - Having received sufficient suppression action to ensure no further spread of the fire.

Being Patrolled - In a state of mop-up, being walked over and checked.

Out - Having been extinguished.

Suppressant - An agent used to extinguish the flaming and smouldering or glowing stages of combustion by direct application to burning fuels.

Sustained Action Crew- Personnel trained, equipped and deployed to conduct suppression action on a wildfire for an extended period of time.

Thunderstorm - A localized storm, invariably produced by a cumulonimbus cloud (CB), accompanied by lightning and thunder.

Timing out\* - When wildland firefighters are nearing the maximum amount of time they are permitted to work.

Values-at-Risk - The specific or collective set of natural resources and man-made improvements/developments that have measurable or intrinsic worth and that could of may be destroyed or otherwise altered by fire in any given area.

Water Bombing - The act of dropping suppressants (water or short-term retardant) on a wildfire from an aircraft in flight.

## **Appendix B. Wildfire Management Branch Fire Fighter Types**

The Government of Saskatchewan Wildfire Management Branch website states:

### **Type 1 Fire Fighters: Ministry of Environment Staff**

Type 1 Crews are made up of the Ministry of Environment unionized staff. Type 1 crews are located in each Forest Protection Area and consist of highly trained and experienced seasonal staff. These individuals have a combination of training and experience that meets or exceeds the interagency exchanged standards for wildland fire fighters established by the Canadian Interagency Forest Fire Centre (CIFFC). The primary purpose of Type 1 crews is to perform initial attack and sustained action activities on wildland fires. Type 1 Crew Leaders and Crew Members are also utilized to fill fireline supervisory roles, supervising Type 2 and Type 3 crews on sustained action fires. They are also eligible for export under the Mutual Aid Resource Sharing Agreement (MARS) established among the various fire agencies in Canada. Type 1 crews may also be exported to the United States under the auspices of the CAN/US agreement. (GOS 2016a)

### **Type 2 Fire Fighters: Contract Crews**

Type 2 crews are contracted through formal agreements with First Nations organizations and Northern Communities (Northern Forest Protection Worker Training Program). These crews are located in various communities and reserves near or within the commercial forest. Crew size consists of five fire fighters including the Crew Leader. Type 2 crews are expected to provide firefighting services as needed and work on projects within their home communities or reserves in times of low fire danger. Type 2 crews are made up of qualified/certified individuals and are primarily utilized to control and contain hot fireline on sustained action fires. Type 2 crews may also be used to assist Type 1 crews on initial attack where required. Many individuals on Type 2 crews return each fire season and have a great deal of fireline experience and formalized training. (GOS 2016b)

### **Type 3 Fire Fighters: Emergency Fire Personnel**

Type 3 crews are made up of qualified/certified fire fighters hired on emergency basis. Type 3 crews are used to support Type 1 and Type 2 crews working on sustained action fire operations. Type 3 crews are normally used on fireline that is under control or in the mop up stage. Each crew should include five fireline personnel including a qualified/certified Crew Leader. In addition to wildland fire suppression the Crew Leader is responsible for supervision and safety of Crew Members, timekeeping, and equipment inventory. Type 3 crews are not normally considered for export to other provinces or agencies for wildland fire fighting. (GOS 2016c)

### Appendix C. Interviewee Characteristics (Their Responses)

Name*	Aged Status at Time of Interview	Wildland Firefighting Start Age	Fire Seasons of Work at Time of Interview	Wildland Firefighting Position at Time of Interview	Work When Seasonally Laid-Off From Wildland Firefighting	Sexed Status	Education**	Racialized Status
Robert Scott	23	19	5	Crew Leader	Student, teaching assistant	M	University	White
Morgan	34	29	6	Crew Leader	Carpentry	M	High School	White
Quinn	24	20	4	Crew Member	Auto-glass installer, childcare for YMCA and autism services, transcriber	M	University	Metis
Blake	26	21	5	Crew Member	Construction, trades	M	High School	Caucasian
Adrian	25	21	4	Crew Member	Furniture mover, bar porter/stock manager, electrical apprentice	M	University	None?
Casey	23	19	4	Crew Member	Personal trainer, student	F	College	Metis
Lane	24	23	1	Crew Member	Student	F	College	Caucasian
Mason	41	15	25	Crew Leader	Welding, plumbing, heating	M	High School	Status Indian
Jordan	37	16	21	Crew Leader	Logging, tree planting, tree thinning, recreation director	M	High School	Status Indian
Sydney	28	23	6	Crew Member	Carpentry, hockey, father	M	High School	Native American (Cree)
Harley	23	23	1	Crew Member	Retail	M	College	Caucasian
Reagan	34	24	10	Crew Leader	Log hauler (semi)	M	University	White
Kendall	25	24	1	Crew Member	Paramedic, aerial technician	M	College	Cambodian
Evan	31	16	15	Crew Member	Logging, heavy equipment supervisor, maintenance and homecare worker at a health centre	M	High School	Status Indian
Blaire	33	16	18	Crew Member	Logging, line cutting, road construction	M	High School	Cree
<b>Average</b>	28.733	20.6	8.4					

\* Names have been changed with the intention of preserving confidentiality and anonymity

\*\*Each category includes both those who completed the level of education and those who undertook some studies at the level

## Appendix D. The Ten Standard Firefighting Orders and the Eighteen Situations That Shout ‘Watch Out!’ (NWCG 2003).

STANDARD FIREFIGHTING ORDERS	WATCH OUT SITUATIONS
<ol style="list-style-type: none"><li>1. Keep informed on fire weather conditions and forecasts.</li><li>2. Know what your fire is doing at all times.</li><li>3. Base all actions on current and expected behavior of the fire.</li><li>4. Identify escape routes and safety zones, and make them known.</li><li>5. Post lookouts when there is possible danger.</li><li>6. Be alert. Keep calm. Think clearly. Act decisively.</li><li>7. Maintain prompt communications with your forces, your supervisor and adjoining forces.</li><li>8. Give clear instructions and insure they are understood.</li><li>9. Maintain control of your forces at all times.</li><li>10. Fight fire aggressively, having provided for safety first.</li></ol>	<ol style="list-style-type: none"><li>1. Fire not scouted and sized up.</li><li>2. In country not seen in daylight.</li><li>3. Safety zones and escape routes not identified.</li><li>4. Unfamiliar with weather and local factors influencing fire behavior.</li><li>5. Uninformed on strategy, tactics, and hazards.</li><li>6. Instructions and assignments not clear.</li><li>7. No communication link with crew members/supervisor.</li><li>8. Constructing fireline without safe anchor point.</li><li>9. Building fireline downhill with fire below.</li><li>10. Attempting frontal assault on fire.</li><li>11. Unburned fuel between you and the fire.</li><li>12. Cannot see main fire, not in contact with anyone who can.</li><li>13. On a hillside where rolling material can ignite fuel below.</li><li>14. Weather is getting hotter and drier.</li><li>15. Wind increases and/or changes direction.</li><li>16. Getting frequent spot fires across line.</li><li>17. Terrain and fuels make escape to safety zones difficult.</li><li>18. Taking a nap near the fireline.</li></ol> <p>NFES 2389 NWCG S-130 12/03</p>



The United States Forest Service Fire & Aviation Management website states:

The original ten Standard Firefighting Orders were developed in 1957 by a task force commissioned by the USDA-Forest Service Chief Richard E. McArdle. The task force reviewed the records of 16 tragedy fires that occurred from 1937 to 1956. The Standard Firefighting Orders were based in part on the successful “General Orders” used by the United States Armed Forces. The Standard Firefighting Orders are organized in a deliberate and sequential way to be implemented systematically and applied to all fireline situations.

Shortly after the Standard Firefighting Orders were incorporated into firefighter training, the 18 Situations That Shout Watch Out were developed. These 18 situations are more specific and cautionary than the Standard Fire Orders and described situations that expand the 10 points of the Fire Orders. If firefighters follow the Standard Firefighting Orders and are alerted to the 18 Watch Out Situations, much of the risk of firefighting can be reduced. (USDA 2015)

See (Ziegler 2007) for an historical analysis of the 10 Standard Fire Orders.

## Appendix E. Telephone Interview Consent Form

### Qualitative Interview about Wildfire Firefighting Consent Form

Greetings from Robert Scott of the University of Victoria (Sociology). I am conducting interviews about emotions at work. You are being invited to participate in this study to talk about your past and current work as a wildfire fighter. I hope to learn about your work and interview you over the telephone about it for an assignment I am doing at the University of Victoria in a course on qualitative research methods.

If you wish to contact my supervisor directly, for whatever reason, please do so by phoning Kevin at 250-853-3783 or by e-mail at [kwalby@uvic.ca](mailto:kwalby@uvic.ca). This research has received ethics clearance through the University of Victoria Research Ethics Committee. Any concerns you may have can be directed to [ethics@uvic.ca](mailto:ethics@uvic.ca)

I hope to interview you about (1) your work and (2) how your work makes you feel about other parts of your life. With your consent, interviews will be audio taped. Interviews will be flexible to allow conversation to move in different directions. The interview will take approximately 60 to 90 minutes and you will be asked to tell stories about your work. I am hoping to interview 3 people.

I do not anticipate any risks to you. If the questions or conversation becomes upsetting, you may decline to answer the questions and you may even end the interview and even withdraw from the project. If you do end the interview or withdraw from the project you can decide at that time if I can use any of the information you have provided. If you do not want me to use the interview material I will destroy the interview notes and tapes.

You do not need to participate if you are not interested. There is no pressure or obligation. Please feel free not to participate if you feel any pressure or if you feel uneasy with how this process is going. Once again, your participation should be entirely of your own choosing and not based on your previous relationship with the researcher.

To protect your identity to the greatest extent possible, a substitute name will be used for your real name on all the written or electronic materials that you have provided and any details that might identify you in the final report will be changed. No statements will be attributed directly to you without your written approval. The chances of your confidentiality and anonymity being jeopardized are extremely low.

Your confidentiality and the confidentiality of the information will also be protected by: 1) by keeping it secure at all times (under lock and key); 2) and by restricting access to the information. The information gathered might be used for presentations, a course paper, a Masters thesis, and possibly publication in the form of a book or journal articles.

During the telephone interview you can ask me questions or voice concerns about the study and we will go over the information above. You will be asked to provide verbal consent that you understand your participation in the project. You will be asked to provide verbal consent that the interview can be audio taped too. If you provide verbal consent, I will begin to record the interview and you will be asked again to provide consent. This will ensure documentation of consent.

## Appendix F. Face-to-Face Interview Consent Form

### Qualitative Interview about Wildfire Fighting Consent Form

Greetings from Robert Scott of the University of Victoria (Sociology). I am conducting interviews about wildfire fighting. You are being invited to participate in this study to talk about your current work as a wildfire fighter. I hope to learn about wildfire fighter identity and interview you about it for my Masters thesis I am doing at the University of Victoria.

If you wish to contact my thesis supervisor directly, for whatever reason, please do so by phoning Dr. Kevin Walby at 250-853-3783 e-mail: kwalby@uvic.ca. This research has received ethics clearance through the University of Victoria Research Ethics Committee. Any concerns you may have can be directed to ethics@uvic.ca

I hope to interview you about (1) your work and (2) how your work makes you feel about other parts of your life. With your consent, interviews will be taped. Interviews will be flexible to allow conversation to move in different directions. The interview will take approximately 60 to 90 minutes and you will be asked to tell stories about your work.

I do not anticipate any risks to you. If the questions or conversation becomes upsetting, you may decline to answer the questions and you may even end the interview and withdraw from the project. If you choose to withdraw from the project you will be asked if the data produced up to that point can be used in final reports. You will be asked to indicate if the data can or cannot be used in final reports by signing the "Termination Form" below. If you do not want me to use the interview material I will destroy the interview notes and tapes.

You do not need to participate if you are not interested. There is no pressure or obligation. Please feel free not to participate if you feel any pressure or if you feel uneasy with how this process is going. Once again, your participation should be entirely of your own choosing and not based on any previous relationship with the researcher.

The researcher may be in a position of power over you at Wildfire Management (known as a *power-over relationship* or a *dual-role relationship*). Precautions will be taken to ensure privacy of the information that you provide and protection from work related conflicts. The researcher will not discuss any of the information that you provide in the interview (for example, a story about breaking rules at work) with other people and will ask you questions that do not influence responses about coworker conflicts.

To protect your identity to the greatest extent possible, a substitute name will be used for your real name on all the written or electronic materials that you provide and any details that might identify you in the final report will be changed. No statements will be attributed directly to you without your written approval. The chances of your confidentiality and anonymity being jeopardized are low. However, there is a potential limit to confidentiality. You may be employed at the same fire base as other participants or be known among Saskatchewan Wildfire Management employees. This might enable other employees to identify you as a participant in the final reports.

Your confidentiality and the confidentiality of the information will also be protected by: 1) by keeping it secure at all times (under lock and key); 2) and by restricting access to the information. The information gathered might be used for presentations, a course paper, a Masters thesis, and possibly publication in the form of a book or journal articles. The final reports may be shared with the Government of Saskatchewan. All of the data produced in interviews will be destroyed June 2014.

I, \_\_\_\_\_ have read the Letter of Information attached and agree to participate in the study being conducted by Robert Scott of University of Victoria (Sociology). I agree \_\_\_\_\_ do not agree \_\_\_\_\_ to be audio taped throughout the interview, and I understand that I may ask to have the audio recorder turned off at any point.

Participant's Name (please print): \_\_\_\_\_

Participant's Signature and Date: \_\_\_\_\_

Researcher's Signature and Date: \_\_\_\_\_

#### Termination Form

I, \_\_\_\_\_ have chosen to terminate my interview with Robert Scott. I give \_\_\_\_\_ do not give \_\_\_\_\_ permission for the data that I have provided to be used in final reports.

Participant's Signature and Date: \_\_\_\_\_

Researcher's Signature and Date: \_\_\_\_\_

*Please keep a copy of this consent form and return a copy to the researcher.*