

# **Bushfire Risk in Late-modernity: An Examination of Risk Perspectives and Ontological Security Structures in Victorian Urban-rural Interface Residents**

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# **Abstract**

Climate change and population growth have resulted in an increasing number of Australians who are exposed to bushfire risks. Due to a combination of factors, residents of urban-rural interfaces (URIs) are vulnerable to bushfire risks, but they may not recognise it, nor know what to do. Residents of these areas are often exposed to and expected to engage with bushfire risks in ways with which they have little prior experience to draw upon. Thus, understanding the risk perspectives of residents of URIs is critical to developing appropriate risk communication and risk management strategies. This study gathers risk perspectives from interviews with 31 residents of Designated Bushfire Prone Areas in URIs around Melbourne and Bendigo, Victoria. Analysis of the data demonstrates that residents of urban-rural interfaces hold a number of perspectives regarding their own exposure or susceptibility to bushfire risk based off of their observations of the environment, as well as through interactions with peers and regulatory bodies. Further, residents of URIs manage the existential threats of bushfire risk through their sense of *ontological security*, which grants a feeling of continuity and predictability in the everyday world and allows for the compartmentalisation of chaotic and uncertain forces. As part of a growing research concern over URI residents' engagement with bushfire risk messages, the study suggests that governments' approaches to bushfire risk management (where individuals are individually expected to self-educate and self-regulate about potential dangers) are disconnected from the realities of URI residents, who do not necessarily self-identify with such classifications of being 'at risk' and thus may be unwilling and unlikely to act in alignment with the desires of emergency managers. Instead, re-socialising bushfire risk communication may be necessary in order for URI residents to re-negotiate their own relationships in response to bushfire risks and assist them to form risk communities mobilised against a collective threat.

# **Statement of Authorship**

Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis or other degree or diploma.

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

All research procedures used in the preparation of this thesis have received La Trobe University ethics approval.

**Signed**



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**12 March 2020**

**Kyle Slade**



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# **Chapter 1: The Problem of Bushfire Risk at the Urban-Rural Interface**

## **1.1: Statement of problems**

Despite the horrors of the 2009 Black Saturday bushfires, and an overall awareness of bushfire risk, individual householder preparation for the event of a bushfire has been described as generally low (McLennan, Elliott & Wright 2014, p. 11). Reflecting a well-established finding in risk studies that awareness of risks is not synonymous with holding intentions to mitigate those risks (Burger & Palmer 1992; Duval & Mulilis 1999; Johnston et al. 1999; Lindell & Whitney 2000; Paton, Smith & Johnston 2000; Paton, Smith & Johnston 2005; Paton et al. 2006; Whittaker, Joshua & Handmer 2010), Koksall *et al*'s (2019) meta-analysis of 10 studies found the average correlation between bushfire risk perception and risk mitigation action to be small.

Further, McLennan, Elliot & Omodei (2012) state that unless there are appreciable changes in Australian community attitudes toward bushfire risk, it seems likely that few householders will leave their home and self-evacuate to a safer location based solely on fire danger weather prediction-based warnings. For most residents who do not plan to defend their home, a decision to leave will be made only when a trigger event, such as a credible warning message (official or unofficial) or environmental clues (such as smoke, embers, or flames) indicates an actual bushfire threat (2012, p. 19).

One group of Australian residents who are vulnerable to thinking they are safer than they may be from the effects of bushfire are residents of urban-rural interface (URI) areas. Also termed peri-urban interface (PUI), rural-urban interface (RUI) and wildland-urban (WUI), URI areas can be described as areas where 'homes and other developments are intermixed among trees and other combustible vegetation' (Balcombe 2007, p. 1). Residents of URI areas face

particular risks due in part to a combination of high fuel loads, rugged topography with poor access and exit points, and a large proportion of inhabitants with little experience in living in the bush or fending for themselves in a major fire (Miller, S, Carter & Stephens 1984; Balcombe 2007). In the State of Victoria, URI areas often overlap heavily with Designated Bushfire Prone Areas (DBPAs), which are described by the State Government as ‘areas that are subject to or likely to be subject to bushfires’ (Victoria, SGo 2019). Particular construction standards apply in such areas with the aim of improving bushfire protection for residential buildings, and many Victorians make their homes among DBPAs.

Thus, the problem stands: URI residents are a vulnerable group of people who live in close proximity to volatile bushfire hazards. The literature suggests that these residents have an awareness of bushfire risks, yet awareness of risk does not necessarily correlate with intentions to mitigate those risks. *If* URI residents are aware of bushfire risks, and a disconnection exists between awareness of risks and intentions to mitigate those risks, then *how* do URI residents construct their choices of either mitigating, or not mitigating these risks? What factors influence these decisions?

## **1.2: Current state of research and understandings of the problem**

Factors contributing to residential vulnerability to bushfire risks in URI locations include physical factors, community and social factors, and behavioural factors. However, as the discussion below shows, the current body of knowledge can be improved by understanding how residents access/construct knowledge and choices to determine to act.

### **1.2.1: Physical factors**

URI areas are particularly vulnerable to bushfire due to a combination of high fuel loads, rugged topography, and poor access and exit points (Balcombe 2007). Risk of structural

fire is higher at the edges of towns or cities where suburbs adjoin bushland (McAneney, Chen & Pitman 2009), and homes within 100m of bushland account for approximately 90 per cent of losses from bushfires in Australia (Chen & McAneney 2004; Crompton et al. 2010).

Vegetation-to-structure (e.g.: buildings) as well as structure-to-structure fire play a key role in fire behaviour in URI areas (Trelles & Pagni 1997; Bianchi & Leonard 2005; Mell et al. 2010). Reduction of risk through treatment of potential fuels is an often used protection strategy, however Carey & Schumann (2003) identify that most studies on the effectiveness of wildland fuel treatments have been based on personal observations, rather than empirical studies of pre-and post-fire measurements, and no clear link has been established between specific fuel treatments (such as grazing, thinning, or burning) and changes in wildland fire behaviour. Indeed, some fuel treatments are more difficult to apply due to drying vegetation from climate change, longer bushfire seasons, and temporal conditions that may not allow for burning.

Meteorological conditions contribute to URI vulnerability. In their data, Bianchi *et al* (2010, p. 918) identify that 75% of house loss in Australia between 1957 and 2009 occurred when maximum temperatures were in excess of 35°C, relative humidity was below 20%, and sustained wind speeds were greater than 20km/h. House loss predominately occurs when fire danger levels are higher than the level at which direct fire suppression of the fire front can occur, suggesting that 'effective intervention by fire brigades can only occur at the interface, in combination with effective preparedness measures taken by the community' (2010, p. 921). The primary focus, support and funding of training programs for bushfire risk goes toward operational response, rather than addressing community attitudes to bushfire (Beatson, J & McLennan 2005; Beatson, R, McLennan & Birch 2008).

Therefore, we have substantial knowledge about the relationship of geography, climate and health to bushfire risk. Bushfires threaten community health through elevated levels of



toxics and respirable particles (Reisen & Brown 2006; De Vos et al. 2009), while the heatwaves which accompany major fire events present significant threats to life and place pressure on urban infrastructure (McEvoy, Ahmed & Mullett 2012; Bolitho & Miller 2017). Urgent evacuations can result in significant traffic congestion and a sharp increase in mean vehicle travel times (Cova & Johnson 2002, p. 2226), compounded further when residents adopt a 'wait-and-see' approach to evacuation decision-making (McLennan, Elliott & Wright 2014).

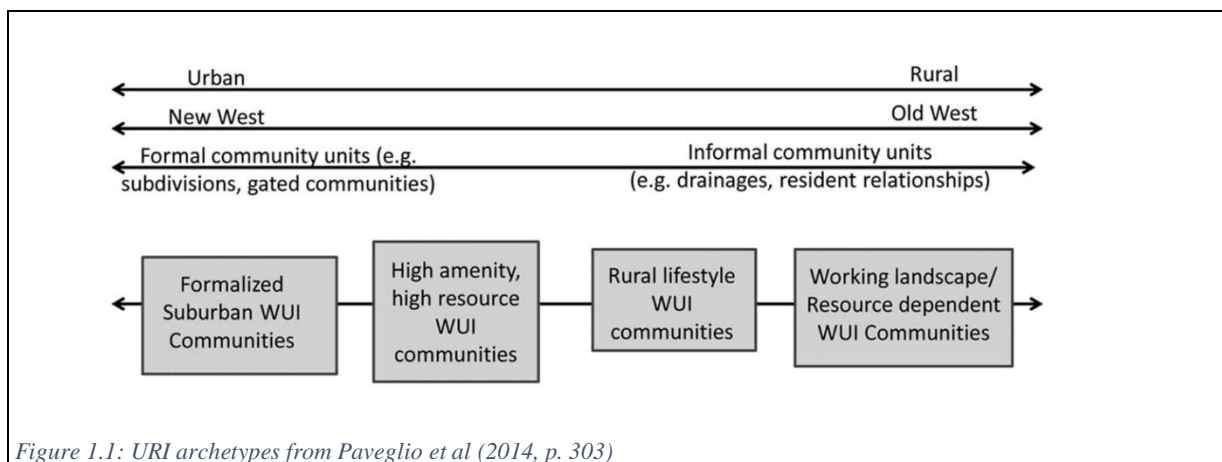
Population growth and regulatory failure are also factors which have contributed to URI bushfire vulnerability. New residents to URI areas often do not understand fire risk and are thus less likely to be prepared (Cottrell et al. 2008). Citing Hughes & Mercer (2009), Buxton *et al* (2011, p. 4) highlight that planning policies and regulations in the Melbourne peri-urban region, which are significant sites of population growth, have 'not attempted to minimise the locations of new populations in areas of fire risk, nor anticipated a worsening fire environment. Regarding regulatory failures, Buxton *et al* (2011) state:

Local councils, and the Victorian Civil and Administrative Tribunal (VCAT) are only required to 'consider' rather than 'apply' local planning policies. This has the effect that no matter how well drafted or specific a policy is, it can be disregarded legitimately (2011, p. 6).

Climate change has further exacerbated the effect of bushfires on URI communities. Climate change factors such as warming, drying, rainfall timing, extreme heat and storm events, wind speeds and density of air masses will influence bushfire likelihood and intensity (Hennessy et al. 2005; Williams et al. 2009; Bradstock et al. 2014; Bardsley et al. 2018), while projections estimate that fire seasons are projected to start earlier in south-east Australia, leading to longer overall fire seasons (Clarke, HG, Smith & Pitman 2011), requiring increases in future resources and management efforts (Liu, Stanturf & Goodrick 2010).

### 1.2.2: Social and community factors

URI populations are comprised of multiple sub-groups which make it difficult to form any distinctive profile of such residents, resisting easy classification (Cottrell & King 2007). Synthesising data from 18 existing community bushfire case studies, Paveglio *et al* (2014, p. 303) developed four archetypal groups within URI communities: (1) formalised suburban communities; (2) high amenity, high resource communities; (3) rural life-style communities; and (4) working landscape/resource dependent communities (*Figure 1.1*). Hybrids exist between archetypes, emphasising differing levels of trust in governmental actors, varying expectations of firefighting services, different personal ability to reduce fire risk, preference for formal or informal communications networks, differing standards for fire risk mitigation, preferences to use professional services or undertake work for themselves, and varying degrees of financial resources.



Residents of URI areas are often commuters with little prior bushfire experience (Miller, S, Carter & Stephens 1984). Though they hold nuanced perspectives of bushfire risk in their environments, highlighting both a love of the local environment, but also cognisance of potential harms that could be encountered should a bushfire occur (Lohm & Davis 2015), residents of URI areas do not engage either solely or even predominantly in a rationalistic

weighing of risk versus emotional attachment and security, and often accept their chosen environments as both nurturing and dangerous (2015, p. 416).

Perspectives of bushfire risk vary among URI populations, who support a wide range of bushfire management practices and outcomes (Bardsley et al. 2018) Langer & Wegner (2018) found that there were clear differences in bushfire risk perception among community residents following the 2017 Port Hills fire in Aotearoa, New Zealand, with some residents indicating surprise that their area could be at risk of bushfire, yet others demonstrating heightened awareness of risks. Expert views on bushfire risk are often interpreted within the context of local understandings of the landscape, as well as through social learning and social memory of bushfire (Reid & Beilin 2014; Reid, Beilin & McLennan 2018). Anton & Lawrence (2016) found that place attachment (loosely defined as an emotional bond between people and their environments) was a predictor for bushfire mitigation and preparedness in rural communities, but not in URI communities. Anton & Lawrence suggest that URI communities might believe that they are relatively close to urban centres, and thus closer to help from officials (2016, p. 157).

There are differences in the human capacity to prepare for, respond to, and recover from disasters (Loyola Hummell, Cutter & Emrich 2016, p. 111), with social vulnerability factors contributing toward increased vulnerability to bushfire risks. Solangaarachchi, Griffin & Doherty (2012) identify that social vulnerability factors such as tenancy and housing arrangements, wealth, education levels, employment status, and immigration status<sup>1</sup> influence the capacity for members of communities to prepare for, respond to and recover from bushfires. Ojerio *et al* (2010) found that socially vulnerable communities are less likely to participate in bushfire mitigation programs, even when exposed to high bushfire risk. Community Fire Unit

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<sup>1</sup> Immigrants of non-English speaking backgrounds or low-English speaking ability were identified as being vulnerable to natural hazards due to racial and ethnic inequalities which often lead to discrimination against them. Further, they often have limited experience with bushfires, or have limited English proficiency through which to engage with the community or seek advice.

(CFUs) initiatives are an effective way of engaging local residents with bushfire risk in New South Wales and the Australian Capital Territory, however Lowe, Haynes & Byrne (2008, p. 31) identify that interest in such initiatives is high after a period of bushfires, but wanes as perceived risk reduces, leaving only a core group of active members. This group can be viewed as an 'impenetrable clique' to outsiders, resulting in both resentment from CFU members regarding the attempted involvement of untrained and uncommitted neighbours in the event of a fire, as well as feelings of alienation and vulnerability from non-members (2008, p. 31). This impenetrability can affect broader communication about bushfire risk issues, as well as the transference of knowledge for bushfire mitigation skill-building.

### **1.2.3: Behavioural factors**

Bushfires are only one type of risk which residents of bushfire-risk areas must consider and prioritise against a competing range of life goals (Eriksen & Gill 2010; Gill et al. 2015; McLennan et al. 2017). Eriksen & Gill (2010) suggest that costs in time and money, gendered dimensions of fire safety (Eriksen 2014), and prioritisation of other tasks has contributed to the 'gap' between awareness of fire risks and subsequent preparedness for bushfires.

Whittaker & Handmer's (2010) meta-study of nine reports presented to the Victorian Royal Bushfire Commission (VRBC) identified that there were generally high levels of bushfire awareness in high fire risk areas during the 2009 Black Saturday<sup>2</sup> fires, however many individuals living in suburban locations had not considered themselves to be at risk prior to those fires. Further, Whittaker & Handmer (2010, p. 9) identify that there were significant variations in fire plans (both in terms of quality and effectiveness during fires), limited understandings of Code Red Fire Danger Rating (FDR) days, and critically, significant

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<sup>2</sup> The 2009 Black Saturday bushfires were Australia's worst fire event in over a century. After a severe and prolonged heatwave, as many as 400 individual fires burned across the state, resulting in 173 lives lost and an estimated cost of \$4.4 billion (Gray 2010).

disparities between expressed intentions and actual responses of householders to bushfire risk. Their findings reveal that while 50-60% of residents intended to leave on Code Red days, two thirds of surveyed residents were at home on the day, and of the third that were not home, only 1.5% left because it was a Code Red day (2010, p. 12).

Sampling 584 residents in at-risk areas of south-eastern Australia, McLennan, Elliot & Lyndsey (2014) found relatively low levels of planning and preparation for bushfires. With the majority of these householders (46%) being located in URI areas on the fringes of regional centres and capital cities, they identified that 56% of such URI residents would adopt a ‘wait-and-see’ approach to a hypothetical bushfire scenario.

Koskal *et al* (2019) identify that viewing bushfire threat from the perspective of the households who face that threat is paramount for agencies who are seeking to influence behavioural change, and that conventional approaches such as providing warnings and risk information for individual households will continue to have limited impact (McLennan, Paton & Wright 2015; Muir et al. 2017; Whittaker, Josh & Taylor 2018). Rhodes (2011) advocates that multiple strategies are required to motivate community preparedness and lead people to question and re-assess their position and response to bushfire risk, including understandings of experiential ‘risk as feeling’ modalities.

McLennan et al (2012) found that for most residents who do not plan to defend their home, a decision to leave will only be made when a *trigger event* such as a credible warning message (official or unofficial) or environmental clues (such as smoke, embers or flames) indicates an actual bushfire threat. Rogers (1987) defined a trigger event as a cue-to-action that ‘crystallises a favourable attitude into overt behaviour change’, a critically important feature in shifting an individual into adopting a preventative innovation (McCaffrey & Kumagai 2007). McCaffrey & Kumagai (2007) use the example of having a relative die in a car accident as a trigger event for having someone finally start using their seatbelt routinely, or in the case of

natural hazards, experience with a flood leading an individual to finally raise their house above normal flood levels. Lacking a direct personal experience with natural hazards constrains motivation to take personal action (Harvatt, Petts & Chilvers 2011), and thus URI residents who have not experienced a bushfire before may be restricted in their motivation to begin effective mitigation strategies. For trigger events to be used as a catalyst for positive bushfire behaviour, there must be awareness of the problem, and of the needed skills to address it. McLennan, Elliot & Omodei (2012) found that 24% of people who intended to leave their homes safely instead did so under hazardous conditions as a result of being triggered to leave by external clues at a time far later than desirable for bushfire safety purposes.

### **1.3: Aim and Research Questions**

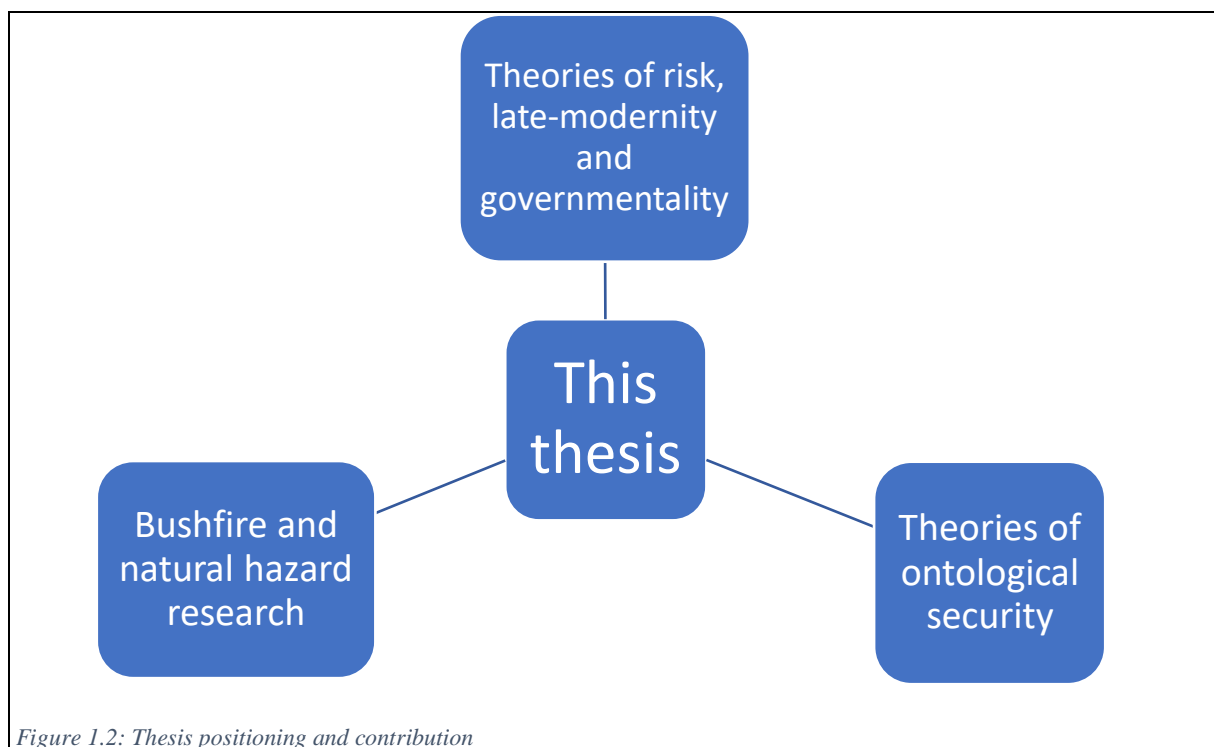
This research examines the experiences of URI residents in DBPAs with the ultimate goal of providing insight into the risk perspectives and ontological security structures of such people. If, as the literature suggests, correlations between bushfire risk awareness and intention to mitigate those risks is low, then fostering a greater understanding of URI residents' risk perspectives will be beneficial for developing strategies that promote a conversion of intentions into action to mitigate bushfire risk. Thus, the research presented in this thesis elicits and analyses perspectives and discourses of residents about the possibility of bushfire from residents living in URI areas in Melbourne and Bendigo, Victoria, Australia.

Explicitly, this thesis explores the problem mainly through a sociological lens, and thus, relies largely upon several strands of sociological literature and theory.

In this chapter, the context of the problem is given by exploring current bushfire and related natural hazard research. In Chapter 2, I draw upon examinations of how risk is conceived in late-modernity, and in doing so, I construct bushfires as a risk of late-modernity. In Chapter 3, I draw upon the theory of *ontological security* to describe how individuals

navigate the risks of late-modernity. Described as ‘a sense of the reliability of persons and things’ (Giddens 1990, p. 92), I highlight that ontological security is predicated on expectations about the nature of the socio-material world being realised and coming to pass, and is thus a useful framework for examining bushfire risk perspectives and the lived experience of URI residents. Ontological security research has been used in natural hazard studies previously (Harries 2008; Hawkins & Maurer 2011), however no study to date appears to have used the framework to investigate the bushfire risk perspectives of URI residents.

These literature streams provide the lens through which the subsequent data can be interrogated and analysed. *Figure 1.2* illustrates the position and contribution of the thesis.



The research is qualitatively focused and examined only URI residents in districts around Melbourne’s north-eastern fringes, as well as URI residents in and around the town of Bendigo (Victoria’s fourth largest population hub, located some 153 kilometres north of Melbourne) between the months of September 2016 to March 2017. Study participants were selected only on the basis of their residential location, with no preference for age, gender, occupation, prior bushfire experience, or whether they were homeowners or renters. Thirty-one participants were interviewed on topics pertaining to bushfire risks in their areas in single interviews, with the exception of one married couple who were interviewed together. Interviews were carried out either at the participant’s home, or at the La Trobe University campuses in Melbourne and Bendigo. Importantly, while visiting homes was useful to gather a more vivid sense of the participants’ experience, I did not carry out any inspections of homes to determine overall defensibility from bushfire threat, nor would I be qualified to make such estimations on their levels of resilience. This is mentioned here from the outset, as I cannot



claim that any expressions made by participants as being ‘prepared’ for bushfire are factual or not; merely that this is what they had expressed. Further, the perspectives provided during the interviews were made in what was imagined to be a safe and comfortable setting; thus, the perspectives of bushfire risk may likely have been different if participants were or had recently been under threat of bushfire. Finally, no quantitative data is presented as the sample size is deemed too small for statistical analyses of the data to be of any significance. Detailed explanations on the method and methodology of the research are further described in Chapter 4.

In order to address the aim and fulfil the scope of the study, three research questions have been identified. They are:

*RQ1: What perspectives do residents of urban-rural interfaces in Designated Bushfire Prone Areas have about their exposure or susceptibility to bushfire risk?*

*RQ2: How do residents of urban-rural interfaces in Designated Bushfire Prone Areas construct and protect their sense of ontological security?*

*RQ3: Are there relationships between the risk perspectives and ontological security structures of residents of urban-rural interfaces in Designated Bushfire Prone Areas?*

## **1.4: Overview of the study**

The thesis consists of eight chapters, in three main parts (*Figure 1.3*). Part 1 (Chapters 1, 2 & 3) outlines the relevant literatures and situates the theoretical position of this work. In Chapter 2, I give a description of contemporary risk theories, particularly with relevance to risk in late-modernity, and situate bushfire risks *as* a risk of late-modernity, identifying several characteristics of bushfire risks or relevance for late-modern understandings of risk. In Chapter 3, I discuss the theoretical framework of ontological security, identifying where it has been

used in previous natural hazard related studies, and demonstrate how individuals use their sense of ontological security to navigate the risks of late-modernity.

In Part 2 (Chapters 4, 5, 6 & 7), I provide the method, methodology and data of the research. Chapter 4 outlines the research method and methodology used to capture the data interrogated by this study, chronicling the process used to find and interview all 31 participants of the study. Chapter 5 presents research data relevant to URI residents' perspectives of risk in their environments. Chapters 6 and 7 presents interview data relevant to URI residents' ontological security structures, with the former exploring descriptions of participants' everyday routines and how bushfire risks were filtered through the use of their *practical consciousness*, and the latter exploring descriptions of trust structures they held and ontological insecurities they experienced.

In Part 3 (Chapter 8), discussions of the findings of the study are presented. This chapter describes answers to the stated research questions, demonstrates how the findings of the study are situated against the current literature, describes the implications of the findings, provides some possible recommendations, addresses the limitations of the study and the findings, and finishes with overall conclusions of the research.

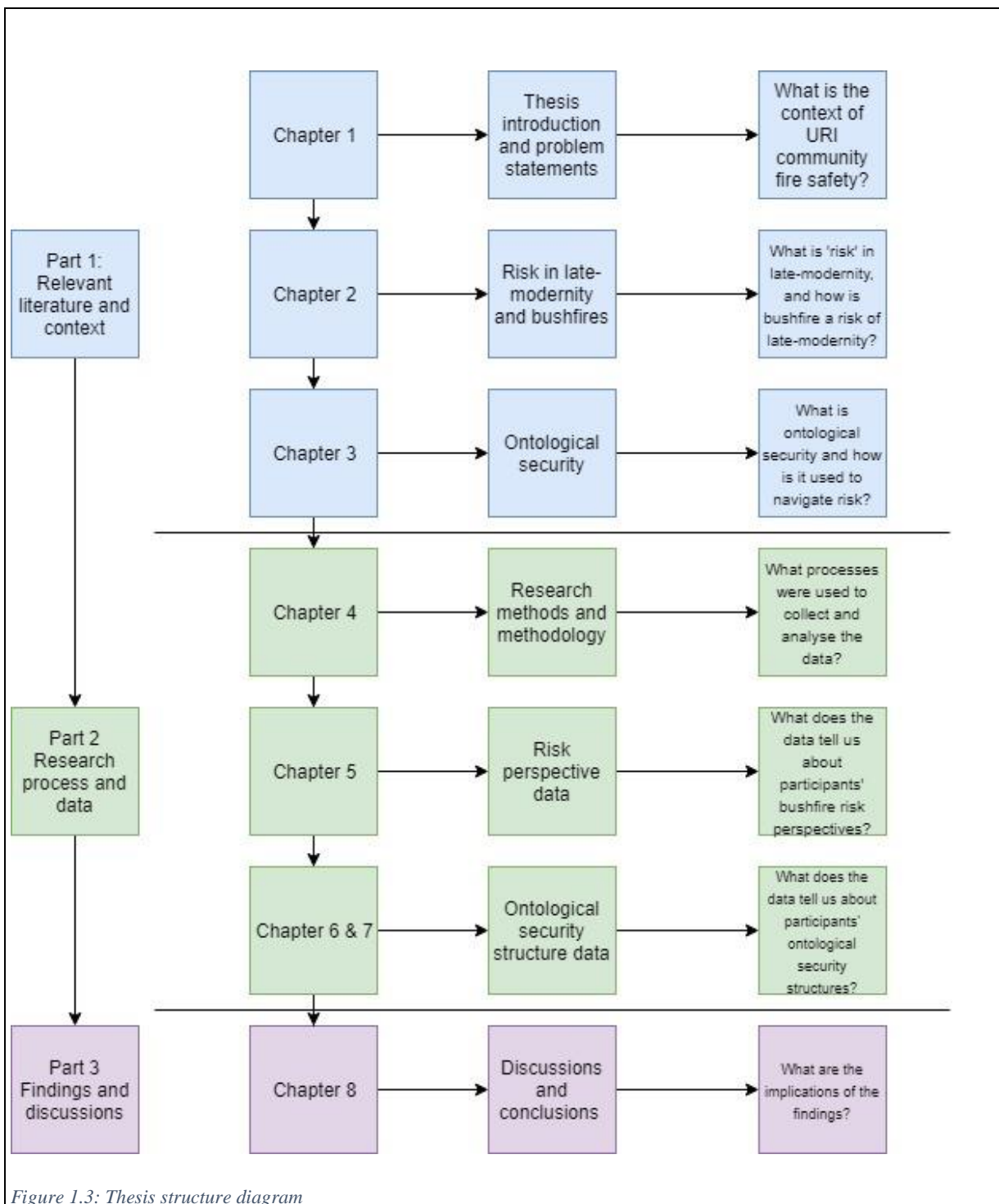


Figure 1.3: Thesis structure diagram

## **1.5: Significance of the study**

The significance of the study rests in its examination of a vulnerable element of the population (risk perspectives of URI residents), and its application of a developing school of

thought (ontological security structures) toward that examination. This research advances current understandings in both directions; it contributes toward understandings of URI populations and their perspectives of bushfire risk, and also contributes to developing an understanding of the ways in which people construct reality, address existential threats, and engage with the structures of late-modernity.

Therefore, the research has both practical and theoretical significance. Practically, greater understandings of URI residents' risk perspectives and ontological security structures are significant, as they allow for the development of more effective policy and strategy toward community resilience building. Understanding why, for instance, URI residents might readily adopt home maintenance tasks such as gardening (which ostensibly contributes toward risk mitigation) but eschew evacuation planning as unnecessary is useful knowledge that can be used to develop more effective strategies which go beyond 'awareness' and instead motivate intentions to act. Theoretically, the research surrounding examinations of ontological security structures and their role in protecting against hypothetical and existential threats is transferable to other contexts; how might ontological security structures be similarly examined in other natural hazard contexts such as residents of earthquake- or tornado-prone areas?



# **Chapter 2: Conceptualising Bushfire Risk in Late-Modernity**

## **2.1: Introduction**

With an understanding of the state of bushfire risk research and the position of ontological security that this thesis intends to take, the discussion turns critically to an examination of the way in which bushfire risk can be constructed through a late-modern risk perspective. This chapter outlines contemporary sociocultural views and perspectives of risk; in particular, the cultural/symbolic perspective of Douglas (1983; 1994, 2004), the risk society perspectives of Beck (1992a, 1996, 2009, 2018) and Giddens (1991, 1998), and the governmentality perspectives of Foucault (1991). These perspectives are especially salient in describing the nature of risk in late-modernity, the differing experiences of and responses to risk between lay-people and experts, and the ordering of society in response to risk. Though bushfires are not a new phenomenon, the changing nature of modernity means that individuals and society itself interacts with bushfire risk in new ways with which it has little prior experience to rely upon.

### **2.1.1: Chapter overview**

This chapter consists of two sections. The first section of this chapter discusses sociocultural perspectives of risk in detail. The paradigmatic shift away from ‘realist’ perspectives of thinking about risk —wherein risks are objective hazards, threats or dangers that exist and can be measured independently of social or cultural processes (Lupton 1999b, p. 35)— into weak- and strong-constructionist perspectives presents opportunities for us to understand how some risks (such as bushfire risks) are interpreted and experienced. Sociocultural perspectives of risk offer explanations for the choices people make surrounding potential threats, hazards and challenges in ways that realist perspectives struggle to make

sense of; the reasons why a person interested in making rational choices for their own survival would select sub-optimal survival patterns and strategies makes sense when the social and cultural contexts in which these decisions are made is considered.

Further, drawing on Beck (1992a, 1992b), Giddens (1991) and Foucault (1991), I discuss the late-modern character of risks, wherein the role of expert knowledge has become a critical feature in the constitution of subjectivity.

Beck (1992b) argues that the risks of late-modern society are not easily calculable because of their non-localised nature and potential long term effects (1999b, p. 63), with many of today's risks escaping easy perception to the senses (1999b, p. 64). Complicating matters, expert knowledges seem also to contradict each other (1999b, p. 64). Furthermore, many contemporary hazards are a direct outcome of human action (1999b, p. 65), further contributing to uncertainty. As such, Beck characterises society as undergoing reflexive modernisation; wherein questions of the development and employment of technologies are being eclipsed by questions of the political and economic 'management' of the risks from actually or potentially utilised technologies (1992b, p. 19).

Giddens (1991) argues that the pre-occupation of risk in modern life has nothing directly to do with the presence of life-threatening dangers. The advances of modernity preclude wealthy contemporary individualised nations (and the wealthy in poorer nations) from many of the diseases and dangers of the 20th century and earlier, ironically, thinking in terms of risk and risk assessment is a more or less ever-present exercise (1991) that has led to a heightened proliferation of risks. The advancement of all fields of knowledge produce their own hazards and risk management practices, precluding individuals from attaining a specialist expertise across all facets of risk. Thus, when it comes to risk, we are all lay-people in most areas of our lives (1991, p. 123).

Foucauldian scholars argue that risk, through the construction of expert knowledge, may be understood as a governmental strategy of regulatory power by which populations and individuals are monitored, managed and expected to self-regulate through the goals of neo-liberalism (Lupton 1999b, p. 87). Risk (and the avoidance thereof) is viewed as a moral enterprise (1999b, p. 91), and failure to self-regulate can be viewed as a moral failure. However, if expert knowledge is uncertain, contradictory, or prone to reconstruction, then self-governance is problematic.

In the second section of this chapter, I use these theories to address several intersections between late-modernity and bushfire risk in URI locations, such as: (1) how structural forces, as well as the need to self-determine and make one's own decisions has resulted in patterns of urban migration, capacity, and uneven distributions of risk (2) how technology produces a necessity of self-education around bushfire risks, as well as a greater expectation of a 'mastery' of nature, (3) how bushfire policy is determined based on expert knowledges, which undergo a constant process of construction, challenge and re-construction, and, (4) how the provision of insurance contracts (a critical risk management strategy for individuals in modernity and late-modernity) function as a means to reduce bushfire risk uncertainty and consequence.

## **2.2: Theories and perspectives of risk**

In this section, three major strands of risk theory are presented. Initially, the realist perspective of risk is described by contextualising the sociocultural theories of risk, demonstrating how and why purely technico-scientific methods of risk conception are ill-suited to understanding the 'lived' experience of risk and illustrating the way in which people integrate risk into their everyday lives. Risks are then considered as social facts, which are common understandings of between people which are themselves not anchored to 'physical' facts (Gilbert 1988). This serves to introduce Douglas' cultural/symbolic perspective of risk (1982,



1983; 1986), in which particular risks stand out among different societies and cultures, based upon the values prevalent within those societies.

Further, this section discusses the *risk society*, using Beck and Giddens as the central theorists. Risk society theories involve an examination of *reflexive modernisation*, and *individualisation*, which have changed the way in which individuals interact with risks, risk knowledge, and with risk experts.

Finally, risk is discussed through a Foucauldian perspective; wherein risk is understood to be a technology of governance, and expert knowledge forms the basis under which various norms emerge. Risks are not so much 'managed' as they 'communicated', with individuals expected to manage their own risks through neo-liberalist ideals.

### **2.2.1: Realist perspectives of risk**

Sociocultural theories of risk emerged in response to classic, technico-scientific ways of considering and conceptualising risk from fields such as engineering, statistics, actuarialism, psychology, epidemiology and economics (Lupton 1999b, p. 17). They emphasise bringing together notions of danger or hazard with calculations of probability (1999b, p. 17), and define risk as 'the product of the probability and consequences (magnitude and severity) of an adverse event' (Bradbury 1989, p. 382; 1999b, p. 18). Such technico-scientific positions are generally adopted in risk management and assessment literature, where the objective is risk reduction, and risks map directly onto underlying hazards (Fox 1999, p. 16). Lupton (1999b, p. 18) writes that: 'Much of the technico-scientific literature addresses what is seen to be the problem of conflict between scientific, industrial and health organisations, and the public in relation to the health and environmental risks associated with science, technology and industry'. Technico-scientific ways of considering primarily take a realist perspective of risk; which assumes that risks exist as objective hazards, threats or dangers and can be measured independently of social

and cultural processes. However, as Lupton argues, conceptions of risk may be distorted or biased through social and cultural frameworks of interpretation (1999b, p. 35).

Realist perspectives of risk are intrinsically connected to the Rational Actor Paradigm (RAP) (Renn et al. 2000), which purports that human agents seek to maximise given utility functions under given constraints and to do so with the utmost privacy (Jaeger et al. 2013, p. 35). The RAP is popular within psychometric studies of risk analysis, and is founded on the idea of both a rational investigator of risk, and a rational risk-receiving agent (Lupton 1999b, p. 21).

Cognitive science has a tendency to construct or position individuals as calculating and emotion-free actors (Lupton 1999b, p. 22), and the RAP presupposes that human beings are capable of acting in a strategic fashion by linking decisions with outcomes (Renn et al. 2000, p. 4). The problem then becomes obvious: if human agents are rational actors who seek to maximise given utility under given constraints, then why do these same agents place themselves in hazardous situations which could otherwise be avoided? Indeed, Jaeger et al (2013, p. 35) identify the rational actor paradigm as 'the monarch and his shaky kingdom', highlighting a tension within the RAP between the success of its ability to understand how individuals make economic choices, and its failures to understand other choices that appear economically 'irrational' or present with lower perceived utility. Douglas (1994) comments on the failures of cognitive science to consider socio-cultural influences in understanding seemingly irrational behaviour choices, stating:

The baffling behaviour of the public, in refusing to buy floodplain or earthquake insurance, in crossing dangerous roads, driving non-road-worthy vehicles, buying accident-provoking gadgets for the home, and not listening to the education on risks, all that continues as before (1994, p. 11).

Realist perspectives of risk grapple with these implications about the public's 'failure' to make effective risk choices. Since realist perspectives of risk offer statistical, probabilistic risk assessments, and rational actors are assumed to be inherently concerned with making the best available decisions, it seems that any behaviour contrary to the best advice provided by those assessments of risk must therefore be based on ignorance or irrationality. The realist perspective of risk fails, therefore, in considering that what is 'technically rational' is not necessarily the same as what is personally or culturally rational.

Jungermann (1983) re-conceptualised the dilemma of the RAP under a quasi-rational framework, attempting to discover a 'hidden' rationality in the alleged irrational responses of the target population of victims of natural disasters (Jaeger et al. 2013, p. 98). For example, the apparent irrationality of the reluctance of people to buy insurance protecting against natural hazards, even when such disasters were probable was reinterpreted as a rational strategy, based on the observation that society would hand out emergency relief funds to victims of natural disaster, thus providing the benefit of insurance without the costs (2013, p. 98).

Jaeger et al (2013) highlight an important criticism of the RAP: if all behaviour can be re-interpreted until it becomes rational from the perspective of the individual, then the RAP can never be falsified or tested, since along these lines any expression of behaviour can always be interpreted as a manifestation of subjective utility (2013, p. 101). Citing Green & Shapiro (1996), Jaeger et al (2013, p. 101) conclude that the task of the researcher is not to decide whether any given response is rational or irrational, but instead to 'unpack the rationality behind the action'.

Realist perspectives of risk also involve a particular style of communication about risks as a transference of 'scientific facts', flowing from technical elites to the populace (1990, p. 7). Bradbury (1989) states:

Reification also can be seen in approaches to risk management that incorporate an unexamined assumption that technical analyses represent absolute, rather than relative truth. Logically, such assumptions lead to the view that risk management decisions are rational to the extent that they are based on the realist, nonpersonal factors (mortality statistics, economic efficiency) of technical analyses. From this viewpoint, the public's failure to make risk decisions on a similar basis is seen as economically inefficient and as evidence of irrationality or lack of knowledge or understanding (1989, p. 383).

Bradbury (1989, p. 383) identifies two key dimensions which are omitted from the realist perspective of risk. First, such technico-scientific constructions of risk remove political dimensions from the risk equation. Plough & Krinsky (1990, p. 6) identify that 'risk communication', for example, has both a conventional definition and a symbolic definition. The conventional definition restricts the meaning of risk communication to surface behaviour, or what natural scientists call 'the phenomenon of the event', neglecting cultural themes, motivations and symbolic meanings, which may be of equal or greater importance in understanding how and why a risk message is transmitted (1990, p. 7). However, the symbolic definition of risk communication often has little to do with the risks themselves that are being communicated, but instead supplies an overarching message of cultural or social reinforcement. Plough & Krinsky (1990, p. 7) describe this in the context of a scientist speaking to a community about the health risks of a chemical dump; the scientist is carrying out a ritual that displays confidence and control, wherein the technical information (the message) is secondary to the real goal of the communication: 'Have faith, we are in-charge'.

The second dimension omitted from realist perspectives of risk is the ethical dimension. Ethics are culturally relativistic; what is ethical, accepted and even expected within a culture and society fluctuates across temporal and cultural boundaries. Realist perspectives of risk cannot take into account a measure of what is considered 'acceptable' without submitting to at

least some form of subjectivity, and neglect to address questions of values that are inherently embedded in the judgements of risk analysts (Bradbury 1989, p. 383). Similarly, the motivations of risk communicators may be affected by whether the producer of risk knowledge actually cares how the information is used. Morgan & Lave (1990) use the example of the US Surgeon General, who, in the 1990's, provided clinical health information to induce specific changes in sexual behaviour with his AIDS brochure, which may be in opposition to the motivations of journalists, who are primarily concerned with attracting readers' and editors' attention to their work, and have no particular concern about how readers will use the substance of their stories.

### **2.2.2: Risk as social fact**

Realist perspectives of risk, with their focus on identification, accuracy of the science used to calculate risks, and their development of predictive models which seek to understand why risks occur and why people respond to them in certain ways tend not to ask the question: 'How are risks constructed as *social facts*?' (Lupton 1999b, p. 18). Durkheim characterised social facts as 'every way of acting, whether fixed or not, which is capable of exercising constraint on the individual; or, which is general throughout a given society, whilst having an existence of its own, independent of its individual manifestations' (2012, p. 14). More concisely, social facts are knowledges that are accepted as true within a society or culture through social interaction. Law, marriage, currency, religion, and employment are examples of social facts.

Searle (1995, p. 33) remarks that social facts have no analogue among 'physical facts'. Belief about physical facts is not requisite for the fact to be true, whilst social facts require an element of belief about the fact in order for it to be true. Searle (1995) uses the example of money as a way to distinguish social and physical facts. Money appears in various physical

forms (metal, paper, computer data, magnetic information) with certain physical and chemical attributes (and thus, certain physical facts), however only through human agreements of compensation and exchange of goods and services does it become 'money'.

If risks can be constructed as 'social facts', the cultural and political contexts through which risk is experienced emerge. If risks are constructed as social facts and exist through mutual understandings and agreements about what constitutes a hazard, the likelihood of occurrence, and the degree to which that hazard might impart negative effects, then areas in which hazards have not yet been identified and classified are precluded from the discussion of being risks or are not attributed similar assessments. Cigarettes were once prescribed and endorsed by medical professionals to soothe the lungs (Brandt 2007); although smoking presented objective hazards to one's health, the health benefits of smoking were accepted as social fact.

Lupton (1999a) describes three sociocultural perspectives to risk which compete with realist ideas and instead construct risks as social facts. They are: Douglas' work on the 'cultural/symbolic' understanding of risk (1982, 1983; 2004), the 'risk society' as illustrated by both Beck (1992b, 1996, 2009, 2018) and Giddens (1991), and the 'governmentality' perspectives put forth by Foucault (1991) and other Foucauldian scholars (Burchell, Gordon & Miller 1991; Ewald 1991; O'Malley 2008).

### **2.2.3: Cultural/symbolic perspectives of risk and the Social Amplification of Risk Framework (SARF)**

Fox (1999) re-articulates Douglas (1982) cultural/symbolic perspective of risk, stating: 'hazards are natural, risks are cultural' (Fox 1999, p. 17). Identified by Lupton (1999b, p. 35) as a critical-realist or weak-constructionist perspective of risk, the cultural/symbolic position contends that although dangers do exist within the 'real world', certain dangers are selected out from others for attention by a society and entitled 'risks' for certain reasons that make sense to

a particular culture, based on its shared values and concerns (1999b, p. 39). This weak-constructionist perspective holds that while there are objective facts about dangers and hazards, the responses to them are mediated by social, cultural and political processes (1999b, p. 28).

Lupton (1999b) writes:

Those who have adopted social constructionism, regardless of the strength of their position, tend to argue that a risk is never fully objective or knowable outside of belief systems and moral positions: what we measure, identify and manage as risks are always constituted via pre-existing knowledges and discourses (1999b, p. 29).

Of most particular importance from this perspective of risk is its emphasis on cultural relativity. Douglas (1986) emphasises the cultural relativity of judgements about risks, including the differences between groups within the same culture in terms of what is considered a risk and how acceptable that risk is thought to be (Lupton 1999b, p. 38). In this respect, Douglas (1994, p. 30) argues that pre-modern and late-modern societies are not dissimilar in their approaches to risk discourse; where pre-modern societies politicised risk through the invention of connections between moral transgressions and natural disasters (for example, with interpretations of natural disasters as being God's punishment for the sins of the people (Gluchman 2016)), late-modern societies politicise risk simply through their selections, with prioritisation and hierarchical ordering of risk fundamentally grounded in moral judgement. Blame, therefore, becomes an important aspect of risk. Eichelberger (2007, p. 1287) draws attention to both media coverage and the personal experiences of Chinese-Americans during the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003, in which discourses of risk and blame defined China as 'a diseased threat to the modern healthy world', while Chinese-Americans identified Chinese immigrants with adherence to Chinese culture and a lack of familiarity with American culture as determining factors of dangerousness (2007, p. 1292).

Kasperson et al's (1988) Social Amplification of Risk Framework (SARF) is a useful tool for demonstrating how risks can be 'amplified' or 'attenuated' through social and cultural processes. Information signals about risks can be intensified, weakened and filtered with respect to the attributes of risk and their importance, whereby such signals are processed by social and individual amplification 'stations' (such as, but not limited to: scientists, risk-management institutions, news media, activist organisations and personal networks of peer and reference groups) which generate and transmit information via communications channels (1988, p. 181). Kasperson & Kasperson (1996) write:

Since most of society learns about the parade of risks and risk events through information systems rather than through direct personal experience, risk communicators, and especially the mass media, are major agents of what we term social stations, of risk amplification and attenuation. Particularly important in shaping group and individual views of risk are the extent of media coverage; the volume of information provided; the ways in which the risk is framed; interpretations of messages concerning the risk; and the symbols, metaphors and discourse enlisted in depicting and characterising the risk (1996, p. 97).

Thus, amplification and attenuation of risk is dependent on the source of the risk communication message. Brenkert-Smith *et al* (2013) found that risk perspectives are amplified and attenuated across vertical (i.e., expert information sources and formal social interactions) and horizontal (i.e., non-expert information and informal interactions) planes, both of which either positively or negatively influence perceptions of risk.

Operationalising the SARF, Masuda & Garvin (2006, p. 447) found that risk perceptions were not isolated within the minds of individuals, but manifested as threats to shared 'ways of life' that included people's sense of belonging and wellbeing in the community at large. They argue that a sense of place is an important part of culture, with local social and



cultural geographies requiring explicit attention in the examination of risk perceptions (2006, p. 452). Indeed, when faced with a future industrial vision for their residential landscape, participants in their study 'amplified risks to defend their view of place' (2006, p. 452).

#### **2.2.4: The risk society, reflexive modernisation and individualisation**

Beck (1992a) and Giddens (1991) are primarily interested in the ways in which the concept of risk is related to the conditions of late modernity (Lupton 1999b, p. 58). In *Ecological Politics in an Age of Risk*, Beck draws a distinction between 'danger' and 'risks' (Beck 2018; Sørensen 2018, p. 7), contrasting what he sees as 'natural-scientific objectivism about hazards' (Beck's term for the realist approach), and 'cultural relativism about hazards' (Beck's term for the strong social-constructionist approach) (Lupton 1999b, p. 60). He maintains a 'natural scientific objectivist' approach by subscribing to the idea that 'real' hazards or risks exist, but brings in cultural relativism by arguing that the nature and causes of risks are conceptualised and dealt with differently in contemporary Western societies compared with previous eras (1999b, p. 61).

Central to the idea of the risk society is Beck's understanding of *reflexive modernisation*; the stage beyond modernity where society is now forced to confront the idea of society itself. Late modernity is characterised by self-reflection, and society becomes an issue and a problem for itself at a global level (1999b, p. 66). Reflexive modernisation is the process of modernity coming to examine and critique itself, an application of the principles of modernity to modernity itself (1999b, p. 66); indeed, 'modernisation is becoming its own theme' (Beck 1992b, p. 19).

Beck writes that reflexive modernisation contains two phases; a reflex phase, and a reflection phase. The reflex phase consists of a transition from industrial society to risk society, where 'consequences and self-endangerment' are produced as part of the processes of

modernisation but are not yet the subject of sustained public or personal debate or political conflict (Beck 1996, p. 27; Lupton 1999b, p. 66). The reflection phase involves industrial society coming to see itself as a risk society, with the growing realisations of the dangers involved in modernity calling into question the structures of society itself (Lupton 1999b, p. 67). Critically, it is the reflection of the dangers of modernity, by modernity, that is the difference between industrial society and risk society (1999b, p. 67). Through reflexive modernisation, individuals can reflect upon and flexibly restructure the rules they accept (2014, p. 46).

Giddens similarly discusses the importance of reflexive modernisation, particularly with respect to risk, trust and the creation of identity through managing one's biographical narrative (2014, p. 6). Trust in expert knowledge (Garfinkel 1963; Wynne 1996) is central to Giddens' theory of modernity; the public is described as experiencing an uneasy trust with expert knowledge, characterised by pragmatic acceptance, scepticism, rejection and withdrawal (Giddens 1991, p. 7). Giddens views risk as being inseparable from modernity, describing modernity as a risk 'culture', wherein 'risk has become a fundamental way in which both lay actors and technical specialists organise the social world (1991, p. 3).

Like Douglas (1982), Beck and Giddens are wary of the tension between real and socially constructed risks. Ekberg (2007) states:

The emergent risks of the risk society are not only theorised as constructs of competing social, political and commercial powers, they are also understood as perceived risks, rather than actual risks. This means the risks may be real or imaginary, but people believe the threats are real whether or not they actually exist. Perceived risks actually exist in the private consciousness of individuals and public consciousness of society and really influence personal, political, social and financial decisions (2007, pp. 350-1)

In the risk society, risk exists as social fact through the role of expert knowledge in the risk society and reflexive modernisation. Wynne (1996) argues that Beck and Giddens, through their emphasis on the characteristics of scientific knowledge and expert systems, understate the importance of the cultural nature of science and the interpretive dimension of scientific knowledge. Drawing attention to the distinction between Beck and Giddens recognition of the contested nature of scientific knowledge, Wynne (1996, p. 45) notes their uncritical reproduction of realist perspectives of scientific knowledge. Wynne is critical of Beck and Giddens original conceptions of the risk society, which purported reflexivity as the next stage in modernity, whilst simultaneously overlooking the cultural and hermeneutic dimensions of reflexive lay responses to expert intervention and disruption of everyday life (1996, p. 46). Wynne rejects Beck's position that the 1986 Chernobyl nuclear disaster was a catalyst for the public's increased reflexivity of the risks of scientific knowledge (and particularly, nuclear power), citing Welsh's (1993, 1995) pre-Chernobyl research of the public's active challenge into nuclear expertise that was 'monolithically offered as authority' (Wynne 1996, p. 48).

As part of the reflexive modernisation thesis, Beck (1992b, 1994) and Beck-Gernsheim (1995), Bauman (2013) and Giddens (1991, 1994, 1998) emphasise the role of identity as a central preoccupation of human experience in what is known as *individualisation* (Howard 2007). Beck argues that in late-modernity, more choices are available to the individual in how they wish to construct their lifestyles, subcultures, social ties and identities (Beck 1992b, p. 131; Furlong & Cartmel 1997), while forms of collective identity (family, work, social ties) are eroded and supplanted by more open processes of personal choice and reflexivity (Mythen 2005, p. 132). Mythen (2005, p. 138) carefully suggests that Beck is hyperbolic, and that while collective identities are losing *relative* cohesion as agents of socialisation, they are not being *replaced* by secondary agents wholesale. Moreover, Lash (1994) argues that traditional

communities have not disappeared, but have reformed around a collective bond of 'risk communities', who share vulnerabilities to collective threats.

Individualisation is thus invariably tied to risk in late-modern society. As a result of the changes in life experiences in modern industrialised societies, individuals have to negotiate a set of risks which were largely unknown to their parents, and as these changes have occurred within a relatively short period of time, points of reference which have traditionally smoothed processes of social reproduction have become obscure (Furlong & Cartmel 1997, p. 1). Teenagers, for example, have always faced interpersonal risks such as bullying, however the practice of bullying has become increasingly disconnected from traditional spatial and temporal boundaries due to social media technology. Cyber-bullying is suggested as being an 'easier' and more accessible act as both bully and victim, and can occur all day as technology has extended 'school-yard bullying' to home computers and phones, making it possible for 'non-stop bullying' (Mishna et al. 2012, p. 67). 'Cyber-bullying' is not only a vague descriptor, but also a constantly developing one; as new applications and technologies emerge, the variety of means and method of cyber-bullying grow. Other technological risks are present for which individuals are required to create navigation strategies. Dunkels, Frånberg and Hällgren (2011) write:

*'But I don't want you to tell anyone, not even my dad!'*

The above quote comes from a 12-year old girl, who had told the researcher how she handles a situation that was part of her everyday life — unknown men making dirty comments about pictures she had posted online. She explained that she had sufficient control over the situation but that she was worried that her parents would get troubled and perhaps restrict her Internet use as a consequence (2011, p. 1).

In this example, patterns of risk-encounter are emergent, rather than traditional, with individual experiences being highly unique, emphasising navigation of risk through personal decision-making rather than the safety provided by structural and collectivist entities. In this example,

the risk is not perceived to be the 'unknown men making dirty comments' (which is under 'sufficient control'), but rather the greater fear that freedom of Internet use might be restricted by parental figures.

### **2.2.5: Risk and governmentality**

Foucault's (1991) perspectives on governmentality have also been applied to risk discourse. Though Foucault did not write on the topic of risk specifically (Lupton 1999b, p. 85), his perspectives are considered relevant by a number of risk scholars, who have applied his ideas on governmentality to risk as a sociocultural phenomenon (1999b, p. 85).

Unlike the weak-constructionist positions taken by Douglas, Beck and Giddens, governmentality perspectives of risk take a strong-constructionist position. Fox describes this as risk perceptions fabricating hazards (1999, p. 19), and argues that hazards themselves are socially constructed, wherein the materialisation of a hazard is the result of identifying 'undesired or adverse events' (1999, p. 19). Through governmentality perspectives of risk, risk can only be known through the various discourses, strategies, practices and phenomena which construct risk and serve to bring it into being (1999b, pp. 84-5).

Risk, therefore, is understood to be a technology of the government (Burchell, Gordon & Miller 1991; O'Malley 2008). O'Malley (2008) writes:

That is, risks are not regarded as intrinsically real, but as a particular way in which problems are viewed or 'imagined' and dealt with. What is specific to risk is that risk is a statistical and probabilistic technique, whereby large numbers of events are sorted into a distribution, and the distribution in turn is used as a means to make probabilistic predictions. In this process, the particular details of each individual case, which had been the focus of disciplinary technologies, are submerged or stripped away (2008, p. 57).

Under a governmentality perspective of risk, expert knowledge is not a means to engage in reflexivity (vis a vis Beck and Giddens), but is instead knowledge that the lay-public should incorporate as their own. Experts are pivotal to governmentality, providing the structure and criteria under which populations are surveyed, compared against norms, trained to conform with these norms and rendered productive (Lupton 1999b, p. 87). Lupton describes *normalisation* as central to the governmental risk technology, or the method by which norms of behaviour are identified in populations and sub-groups of populations (1999b, p. 87). If norms of behaviour status can be examined and established through instruments of mass surveillance and observation, then populations can be managed through the goals of neo-liberalism (1999b). Through these goals, the state does not excessively intervene in the individual freedoms and rights of the individual, yet it is able to construct various risk calculations through which citizens of a neo-liberal society are expected to self-regulate.

Central to governmentality perspectives of risk is that risks must be labelled and presented to society. Risks are not necessarily 'managed', so much as they are simply 'communicated', with the individual expected to observe, digest and act in accordance to the advice of risk communication. Through a governmentality perspective of risk, the onus of the negative impacts of a given 'risk' are removed from the government and placed onto the individual, so long as institutional bodies responsible for the regulation of risks have done everything in their power to manage or communicate that risk short of curtailing individual freedoms.

In Australia, government policy aggressively targets smoking. Cigarettes are sold in uniform plain-grey packaging without branding, while each carton depicts a graphic reminder of the health risks of smoking; rotting toes, missing teeth, a woman on a respirator, an emaciated man on a hospital bed (*Figure 2.1*). Smoking was outlawed in outdoor dining venues in Australia in 2017, while the Australian government has implemented an annual 12.5%

increase on the tax of tobacco products from 2016 up to 2020, raising the cost of a packet of cigarettes to \$40 AUD (Hirono & Smith 2018).



Thus, the risk control strategy of the Australian government is not to outlaw smoking itself (thus overtly forbidding the individual from making the risk choice), but instead to simultaneously communicate and emphasise the negative consequences of the risk (through graphic warnings on the packaging), impede the convenience with which the risky behaviour can be performed (by restricting the amount of acceptable locations in which smoking is acceptable), and increasing the economic costs of engaging in the risky behaviour (by implementing heavy taxes on cigarettes which are passed on to consumers). Individuals are still able and free to smoke cigarettes yet must overcome increasingly restrictive barriers in order to do so.

### **2.3: The late-modern bushfire risk**

If bushfire risks have unique properties in late-modernity, and many risks of late-modernity are navigated through a sense of ontological security, then it makes sense to examine the ontological security structures of those who may be exposed to these risks.

Several aspects of risk in late-modern society need to be discussed in reference to bushfire risks. First, URI migration choices can be characterised as both a self-determination choice and exercise of agency, and thus described through Beck (1992b) and Giddens (1994) ideas of *individualisation*. Despite this, URI migration choices are also the product of structural inequalities which force individuals into different choice arrays, and thus self-determination choices may be limited by personal circumstances, capability, agency and structural forces.

Second, technological advancements and the permeation of technology into everyday life presents unique opportunities for individuals to interact with bushfire risk. Governmentality perspectives suggest that, provided institutional bodies have done everything in their power to manage or communicate risk, then individuals are expected to observe, digest and act in accordance with risk communication advice, however the use of bushfire-risk technology is often a practice of self-regulation, and self-regulation requires acknowledgement that one is 'at risk' before regulation of risks can take place.

Third, the construction and re-construction of bushfire knowledge shapes bushfire policy, and both theory and policy are supplanted in increasingly diverse and unique bushfire situations. The reflexive individual in late-modernity is both to engage with bushfire knowledge, while at the same time remaining highly critical of bushfire knowledge, placing them in a precarious position of trust.

Finally, while insurance is a means through which the financial consequences of bushfire risks can be distributed and remuneration can take place, insurance itself involves a problematic rendering of incalculabilities into calculabilities. Insurance re-distributes both risk



and responsibility for the consequences of an uncertain event, while failure to adopt insurance mechanisms can be seen as a moral failure to appropriately protect oneself or one's family from risk.

### **2.3.1: Individualisation and the uneven distribution of bushfire risk**

More Australians are opting to settle in URI locations directly bordering pasture, bushland or forest areas (Burnley & Murphy 2004; Gill, Klepeis & Chisholm 2010; Luck, Race & Black 2010; Abrams et al. 2012), with increasing urban-to-rural migration of people predicated on desires for lifestyle change, affordable property, and the attraction of natural and/or coastal settings (Burnley & Murphy 2004; Hugo 2005; Eriksen & Gill 2010). URI locations are characterised by relatively large populations living in close proximity to highly flammable bushland areas (Blanchi, Leonard & Leicester 2006; Balcombe 2007; Blanchi et al. 2014). Importantly, living in bushfire-risk areas has been described as a 'trade-off' between the various amenity values offered by URI living and the extant dangers of living close to flammable bushland (Nelson, Monroe & Johnson 2005; McFarlane, McGee & Faulkner 2012; Reid & Beilin 2014; Gill et al. 2015).

Bushfires are not a modern phenomenon, however the experience of URI migration and habitation in proximity to areas of high bushfire likelihood can be examined through the frameworks of reflexivity and individualisation. Though Beck argues that individualisation is not a phenomenon unique to modern or late-modern societies (1992b, p. 127), the disintegration of many of the certainties of industrial society, as well as the compulsion to find and invent new certainties for oneself and others (1994, p. 14) offers explanations of growing URI migration. Stable employment is no longer taken as a given, and it is 'considered up to people to make their own opportunities' (Lupton 1999b, p. 71); in many ways the post-modern

reflects the pre-modern, and the URI 'frontier' can be viewed as an attractive choice for those looking to achieve the trajectory of the self.

Late-modernity and individualisation are also characterised by a disconnection from tradition (O'Brien, Penna & Hay 2014). More traditional forms and values of community including sharing of knowledge, experience and information are eschewed in favour of individuality, limiting the capacity for informal risk rationalities to be shared within communities. Aligning with the individualisation thesis, wherein there is 'a proliferation of new demands upon people at the same time as choices have become more complex and difficult' (Lupton 1999b, p. 70), Eriksen & Gill (2010) highlight how lifestyle changes have reduced the available number of trained volunteer members of CFA brigades, where involvement with the community competes for time against professional priorities (work), thus limiting the capacity for transfer of knowledge to take place. Individualisation requires that one must choose among risks, conform to one's internalised standards, and be responsible for oneself while also being dependent on conditions outside one's control (Lupton 1999b, p. 70; Gephart Jr, Van Maanen & Oberlechner 2009, p. 145).

Individualisation theory, however, emphasises agency and downplays structure (Brannen & Nilsen 2005). The power to self-determine is limited by the choices available to the individual, and structural inequalities provide individuals with different choice options and arrays. The affordability and other values (space, scenery, etc) of URI property in comparison to urban settings incentivises certain forms of urban migration to URI areas through optimal amenity and/or economic choices. Since bushfire hazards are naturally greater in URI locations than in urban settings, then bushfire risk can be thought of as unevenly distributed among socio-economic classes. Bushfire risk does not affect the poor and the rich alike; indeed, Beck (1992b, p. 35) describes the wealthy (in terms of income, power and/or education) as being able to *purchase* safety from risks. Insurance (discussed below) is one such way in which safety from

risks can be purchased, thus drawing attention to those who are un-insured or under-insured and cannot purchase the same protections.

Beck does not suggest that inequalities disappear under individualisation, but that they become redefined in terms of an 'individualisation of social risks' (1992b, p. 100). This results in 'social problems being increasingly perceived in terms of psychological dispositions such as personal inadequacies, guilt feelings, anxieties, conflicts and neuroses' (1992b, p. 100). While bushfires are a social risk, mitigation of susceptibility to bushfire hazards is an increasingly individualised endeavour; it is up to the reflexive individual to make plans, fortify the home, find insurance and protect oneself, with the capacity to do so influenced by social inequalities. While Beck and Giddens note that many of the hazards of the 'risk society' (such as radioactivity, air pollution, etc) affect the poor and the rich alike (with 'the risks of modernisation sooner or later also striking those who produce or profit from them' (1992b, p. 23)), the successful negotiation of risk through reflexivity remains heavily reliant on one's socioeconomic or class position (Threadgold & Nilan 2009), and individuals of a higher socioeconomic or class position have greater freedom to engage in reflexivity, due to greater wealth, power and education.

Those who are wealthy in income may purchase premium insurance in mitigating their bushfire risks. If they are so minded, they can purchase properties less exposed to fuel loads, or invest in fortifications which can improve the capacity of the home to resist bushfire. McCaffery & Kumagai (2007, p. 19) describe wealth as a consistent consideration in the implementation capacity for bushfire mitigation strategies, noting that 'in general, it has been found that relatively high levels of resources wealth are necessary for mitigation programs to be initiated at either an individual or societal level. Solangaarachchi, Griffin & Doherty (2012) discuss social vulnerability in URI locations around Sydney, and identified population characteristics such as tenancy and housing arrangements, wealth, education levels,

employment status, and immigration status<sup>3</sup>, which influence the capacity for members of communities to prepare for, respond to and recover from bushfires. Ojerio *et al* (2010) found that socially vulnerable communities (where *social vulnerability* is defined as lack of access to resources, information, and political power, limited social capital and physical frailty) were less likely to participate in bushfire mitigation programs, even when exposed to high bushfire risk.

Individualisation among URI residents, therefore, can be viewed through a dual perspective. Individual choices are made about various trade-offs regarding property, convenience, lifestyle and amenity value, with choices about bushfire risks competing for time and attention against a plethora of other decisions. Individuals are reflexive about bushfire risks, but only insofar as those risks can 'win' against other considerations. Despite this, greater structural inequalities impede the ability for individuals to engage in a uniform reflexivity surrounding bushfire risk; those who are disadvantaged as a result of structural inequalities may lack the freedom, means and capacity to reflexively engage with bushfire risks, and thus, they are unevenly affected by those risks.

### **2.3.2: Technology, governmentality, and the 'mastery' of nature**

Modernisation is intrinsically linked with technology and scientific advancement. Under modernist rules, science and technology were supposed to control risk; as scientific knowledge progressed, so too would society's understanding of risks, and the technologies available to counter them. Giddens offers a list of some of the scientific advances relevant to risk-reduction seen between 1907-1977, including things such as safety belts in cars, eradication of major parasitic diseases, and development of the scientific principles of

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<sup>3</sup> Immigrants of non-English speaking backgrounds or of low English-speaking ability were identified as being vulnerable to natural hazards due to racial and ethnic inequalities which often lead to discrimination against them. Further, they often have limited experience with bushfires, the Australian environment more generally, or have limited English proficiency through which to engage with the community or seek advice.

immunisation, nutrition and personal hygiene (1991, p. 115). However, many hazards only exist as a *result* of modernisation. The emergence of anti-biotic resistant bacteria (Frieri, Kumar & Boutin 2017), the previously discussed elements of cyber-risks to children (Dunkels, Frånberg & Hällgren 2011; Mishna et al. 2012), and the proliferation of global terrorism post 9/11 (Beck 2002) are due largely to the processes of modernisation.

Technology plays a critical role in modern bushfire risk. Early settlers did not have access to the various technological and scientific advantages available to modern populations to aid them in coping with bushfire hazards. Technology has, theoretically, lowered the barriers of entry to becoming bushfire risk-resilient. On any home computer with an Internet connection, individuals can access the CFA website and find planning information, current state-wide warnings and restrictions, and a list of important emergency contacts through which help can be acquired. The VicEmergency app provides any person with a smartphone detailed warning information about bushfires (among other hazards and emergency events) in the user's vicinity and can be automated to generate warnings for the user. On Reddit, the subreddit */r/melbourne* relies on community participation to aggregate bushfire information and posts into a forum where people can share their experiences, upload photos and videos of bushfires, and describe fire conditions in real time. In the event of a bushfire, the national Emergency Alert system can be used by emergency services to send voice messages to landlines and text messages to mobile phones within a defined area about likely or actual emergencies. Such technologies are both practically important, in that they provide useful warning information, but also symbolically important; in that they exist as a means to reduce uncertainty. Through the use of these technologies a lay-person with no experience in managing or surviving a bushfire has the opportunity to educate themselves, achieve resilience and competence, and ultimately, increase certainty about the trajectory of the self.

'Self-education', however, implies self-regulation; governmentality perspectives of risk imply that self-education is an appendage of self-regulation, with self-regulation of risks reflecting norms established at the collective level by the state (Castel 1991; Ewald 1991; Dean 1999; Miller, KD 2009). To engage in self-education about risks is to first accept that one is 'at-risk', and to be 'at-risk' is to be located within a network of factors drawn from the observations of others (Lupton 1999b, p. 93). How then can a lay-person who does not identify with or align themselves to this network of factors undertake self-education and ultimately self-regulation of their own 'risks'? As described in Chapter 1, URI areas are often proximate to areas where bushfire hazards are located, and which can, under certain conditions, be destructive to the lives and properties of those who live nearby. However, residents of URI locations may not necessarily align themselves with the risk designations of the URI areas, which may preclude their use of bushfire risk mitigations technologies.

Governmental bushfire risk communication and control strategies exist on a spectrum which aims to mitigating the risk to the greatest degree possible, while also providing individuals with autonomy. At one end of the spectrum, the government invests considerable resources in reducing bushfire risk. The CFA has a fleet of over 1200 fire-tankers, configured in either 2-wheel or 4-wheel drive configurations and designed to carry a 3000 litre water tank and pump (Victoria, C 2019), as well as 200 pumpers capable of pumping up to 4000 litres of water per minute (Victoria, C 2019). Until recently, the Erickson S-64 Air-Crane helicopter (nicknamed 'Elvis') was perhaps the ultimate symbol of the state's attempts to master nature and manage bushfire risk. On summer days, the bright orange water-bomber can be seen flying over parts of Victoria, moving between fires and refuelling depots, providing fire suppression utility over topographical areas inaccessible to land-based fire crews. The DC-10 VLAT (Very Large Air Tanker), in operation since 2015, is now being used in New South Wales to combat fires and saw deployments during the 2018-2019 fire season. The VLAT holds up to 44,000

litres of water or fire-retardant (Carrier 2011), versus Elvis' 9,500 litre capacity (Service 2003). Elvis, the VLAT, the state's fleet of fire-fighting appliances and its digital technologies are expressions of a wealthy, technologically advancing society utilising scientific principles to achieve fire suppression with maximum effectiveness. These are not just practical tools for fire-fighting; they are also symbolically relevant, representing grand forms of process control and intervention only possible through industrialisation, and only a wealthy, developed society could afford to produce and implement technology at such a scale.

At the opposite end of the spectrum, individuals are positioned within a structure which grants them autonomy, but is loaded with an expectation that individuals will choose to act in accordance with advice. Televised risk messages, such as the collage featured in *Figure 2.2*, emphasise the negative consequences of bushfire risk (the burned-out environment) while simultaneously providing information on the best course of action (leaving early) from a symbolically authoritative expert figure (a firefighter).



Figure 2.2: Collage of the 'Leave Early' televised risk communication.

This was evident during the 2020 Gippsland fires. Road access to affected areas was restricted through a governmental control mechanism used to reduce danger to the public and control affected areas. *Figure 2.3* explains the different levels of access governmental bodies may provide to bushfire-affected areas during an incident. While the previous example dealt with acute risk, chronic risk is also managed through governmental control. For example, while building a home in a Designated Bushfire Prone Area (DBPA) is allowed, government policy (*Australian Standard AS 3959-2009 Construction of Buildings in Bushfire Prone Areas*)



requires the building site to be assessed and any structure to be designed to particular specifications, ostensibly increasing their resilience to bushfire hazards, but also increasing the economic costs of habitation in such areas.

ACCESS LEVELS				
NO ENTRY	RESTRICTED Level B	AUTHORISED Level C	AUTHORISED Level D	ROAD OPEN
Emergency Services Only	Emergency Services  Safety assessment teams  Residents and business owners (at the discretion of the Incident Controller)	Level B plus: Residents Business owners Recovery and relief services Council/VicRoads Accredited media	Levels B & C plus: Road owners Employees Persons bringing supplies for people and animals	

*Figure 2.3: Road access control levels*

Thus, individuals are positioned within a structure which requires them to align with risk designations and self-educate, however individuals are able to resist these designations to varying degrees. Certainly, individuals are surrounded by technologies which assist them in reducing their exposure to bushfire risks and are even made to comply with directives such as road access control or building regulations; yet engagement with such technologies is highly dependent on one's own evaluation of personal risk.

### 2.3.3: Construction and re-construction of bushfire knowledge and policy

Bushfires have become a 'risk' faced by many as a direct consequence of late-modernity, and particularly those who live in URI locations. Competing perspectives regarding the best practices for land management in relation to bushfire are contested, due to the variety of experts

involved (Altangerel & Kull 2013; Attiwill & Adams 2013). Knowledge about bushfire risk is constructed and reconstructed in an on-going cycle as more is discovered about fire behaviour, ecology, human populations, technological possibilities, and their possible and probable interactions.

Policies about bushfire management and advice are developed based on scientific findings, which have been subsequently found to be unsuitable for the task of providing best-action advice in the face of new information and encounters with greater risks. For example, referring to the failure of 'Prepare, Stay and Defend or Leave Early' policy (more colloquially known as the 'Stay or Go' policy), the Victorian Royal Bushfires Commission (VRBC) found that the policy did not adequately account for the possibility of fires of immense severity such as those encountered on Black Saturday, while also assuming that 'individuals had a fire-plan and knew what to do when warned of a bushfire threat' (Commission 2010, p. 5). The Stay-or-Go policy assumed (wrongly) that a well-prepared household could adequately defend a home from bushfire threat.

Symbolically, the state's production of norms regarding assessment of bushfire risk signalled that the extent of bushfire hazards had been monitored, analysed, controlled, and in other words — scientised. Lupton (1999b) writes:

Science itself fails in response to the large-scale, indeterminate nature of contemporary hazards. Hypotheses about their safety cannot be tested empirically and science has little power to intervene in a context in which the world has become a laboratory for testing how hazards affect populations. Scientists have therefore lost their authority in relation to risk assessments: scientific calculations are challenged more and more by political groups and activists (1999b, p. 64)

The vulnerabilities of the 'Stay or Go' policy were not or could not be tested empirically prior to their exposure. They could only be revealed when the conditions which the policy was

*expected* to address did not materialise, and instead, the conditions were more intense and complex. When conditions emerged with an intensity greater than the policy was able to account for, failure of the policy was made apparent and scientifically understood bushfire 'knowledge' (*vis-à-vis*, the individual capacity for defensibility of property versus the potential magnitude of a bushfire threat) required re-construction in light of new evidence. The process of this construction and re-construction was itself *scientific*, in that its theoretical bases were falsifiable in light of new evidence. However, as a by-product of this reconstructed process, the reflexive individual could conceivably reason that the theory on which bushfire policies are predicated can only be true as a 'best possible explanation', at least until a new set of conditions occurs which once again challenges existing knowledge. Further, the reflexive individual has, under a governmentality perspective, a reduced ability to self-educate about risks and conform with 'expected' standards if risk knowledge is constantly shifting. The constantly shifting nature of bushfire knowledge and its potential effects means that individuals stand on an uncertain platform with which to reflexively integrate expert advice into their own personal experiences.

Policy elements must also be considered within a culturally relativist framework. Douglas (1983) emphasises the cultural relativity of judgements about risks, including the differences between groups within the same culture in terms of what is considered a risk and how acceptable it is thought to be (Lupton 1999b, p. 38):

It is pointless, therefore, to concentrate on providing 'better' communication or more education about the risk to the lay public as a means of settling risk disputes, for the issue is not one of misguided perception but rather is the result of clashes in political, moral and aesthetic judgements on risk (1999b, p. 38).

This illustrates a tension between lay-bushfire knowledge and expert communication. Different lay-conceptualisations, values or beliefs about the dangers, probabilities or potential outcomes contribute to different rationalities, which policy may struggle to address. For example, The

*Victorian Bushfire Safety Policy Framework 2018* identifies 'Awareness and education' as its first priority area. The policy identifies the difficulties in achieving behavioural change for bushfire safety, citing constraining factors such as the complexity and variability of the risk due to local conditions, people's perceptions and attitudes, and that some people may lack the capacity to address the bushfire risk or choose not to engage (Victoria 2018, p. 13). The policy states:

An integrated approach, using broad-based media campaigns, government and fire agency websites and publications, locally delivered community education programs, as well as local community events and activities throughout the state, is essential to reach and engage as much of the community as possible. Activities should be delivered year round (2018, p. 13).

and,

Evidence shows that in order to drive behavioural change, programs need to be varied in format and content and designed to meet the specific needs of the audience. Information should be tailored to include reference to the local context, situation and risks (2018, p. 13).

The policy is cautious; it appears at first to recognise that the experiences and needs of people who may live in bushfire-prone areas are both disparate and unique. However, the policy also appears to indicate that the problem lies within the tailoring of the information to the public, and that by including reference to the local context, the situation and its risks, more of the public will understand bushfire risk, and take the appropriate steps to protect themselves. The descriptors 'reach and engage' (2018, p. 35) imply that the public is either not being reached by the risk information, or that the risk information is not engaging enough to the public for an appreciable behavioural change to manifest. Thus, the position of the policy is that information should be tailored to include reference to the 'local context, situation and risks' (2018, p. 13), and designed to 'meet the specific needs of the audience' (2018, p. 13), rather than different risk rationalities.

The *Victorian Bushfire Safety Policy Framework 2018* does not explicitly account for culturally relativistic dimensions through which bushfire risk is perceived, experienced, judged, normalised or agreed upon by the lay public, because it supposes that the reasons for a lack of engagement with bushfire risk information are due to the specific needs of the audience not being met, rather than through personal evaluation and assessment of one's own position in relation to bushfire risk.

#### **2.3.4: Distributions of bushfire risk and responsibility through insurance**

Early modernist rules of risk calculation ascribe to notions of attribution and causality; that through technology and learning, risks can be measured, calculated and mitigated. Further, insurance policies and compensatory mechanisms exist to address the consequences of risk; that if a risk is encountered and realised, its effects can be, if not fully nullified through a restoration to the proper 'order' of things, then at least compensated through the assignment of a price based on the calculus of probabilities of such an event (Dean 1999, p. 138). Beck (1992b) argues that the causes of risks are now conceptualised differently in society; in particular, processes of risk calculation used in modern society fail to work in risk society because risks are no longer localised and are long term in nature (Lupton 1999b, p. 63). As a result of climate change, the hazards associated with bushfires are becoming increasingly borderless, both geographically and temporally.

Private insurance institutions are treated as pivotal institutions in the transformation from early modernity to late modernity through the application of scientific and technological advances to practices of risk spreading and harm minimisation (Ericson & Doyle 2004). Beck (1992a, p. 102) contends that institutions are unable to fully prevent risks from occurring, nor are they able to adequately compensate for their effects (Lupton 1999b, p. 63), stating that mega-hazards of the type found in late-modernity abolish what he terms 'the four pillars of the

calculus of risks': compensation, limitation, security and calculation. This can be seen in recent identifications of flood and fire risk areas that have high insurance premiums, or even areas which insurance agencies will not insure. The insurance industry also does not use a standard definition of 'fire'; for instance, the Australian Associated Motor Insurers (AAMI) fire and theft contents insurance covers 'loss or damage to your contents caused by fire (burning with flames)', but does not cover loss or damage arising from 'heat, ash, soot and smoke when your contents have not caught on fire *unless* it is caused by a burning building within *10 metres* of the insured address' (Insurers 2020, p. 16)

Ericson & Doyle (2004), however, challenge Beck's position. Conducting an empirical study of various participants in the insurance relationship after the September 11 terrorist attacks, they illustrate how insurance institutions and governmental bodies were able to compensate for the effects of such large scale, late-modern risks in creative ways. While Beck contends that the unpredictability of risks in late-modernity render fixed norms of calculability invalid (and so too institutions such as insurance which depend on them), Ericson & Doyle (2004) argue that insurance institutions do not shy from these uncertainties, but rather embrace them, and turn threats into opportunities. They write:

To the contrary, our case study shows that insurers will insure that which is not calculable through scientific expertise or controllable through certain technologies. They convert scientific uncertainty and lack of technological control in the field of risk concerned into their own science and technology of capital risk distribution that limits severity of losses. They enforce preventative security requirements on the insured—involving environmental design, electronic surveillance, and private police—thereby fostering precaution and vigilance that limits frequency of loss. They collaborate with governments in both capital risk distribution and preventative security. While their tireless efforts to contain severity and frequency are always fallible, they nevertheless continue to thrive on uncertainty, always eager to turn threat into opportunity. They impose meaning on uncertainty through non-scientific forms of

knowledge that are intuitive, emotional, aesthetic, moral and speculative. They take risks and gamble for profit. As a modern institution, insurance has always operated this way (2004, p. 168).

Dean (1999), citing Ewald (1991), agrees with this insurance rationality; 'for insurance rationality, everything can be treated as a risk and the task of insurers has been to 'produce' risks and to find ways of insuring what has previously been thought to be un-insurable'. For Dean (1999) and Ewald (1991), insurance is approached as an attempt to make the incalculable calculable.

Insurance, in its various forms, shifts the financial consequences of an event from the individual to the insurer. Insurance, therefore, involves a redistribution and 'spreading' of risk (Baker & Simon 2002). Distinction between two types of insurance must be made; social insurance, which describes state run and managed safety nets through taxation (social security, Medicare, income support, carer allowances etc.); and private insurance, which involves the purchasing of contracts from an independent supplier for financial coverage for a range of activities (health insurance, home insurance, car insurance, professional liability insurance etc.). Abraham (2013) identifies four conceptions of insurance; insurance as contract (the dominant view, in which conception is a contract transferring a risk of loss to a party whose business is selling such contracts), insurance as public utility/regulated industry (where insurance is affected with public interest as an important good such as water and electricity, and therefore the terms and conditions under which insurance is sold, as well as the price charged for insurance must be subject to regulation to serve the public interest), insurance as product (where policy-holders do not necessarily have a meaningful choice about the coverage provisions policies contain, and as such, do not agree to a set of contractual terms so much as they purchase a commodity in the hopes that it will provide them with what they need), and

insurance as governance (in which the insurer ‘governs’ its policyholders and performs quasi-governmental behavioural control functions).

Within natural hazard literature, insurance has become an important area of study, particularly within the domain of flood risk. Research is primarily focused on the motivation and decision-making factors for individuals acquiring flood insurance (Browne & Hoyt 2000; Michel-Kerjan & Kousky 2010; Lamond & Penning-Rowsell 2014; Browne, Knoller & Richter 2015; Shao et al. 2017), as well as policy implications (Kunreuther 2006; Zahran et al. 2009; Nance 2015; McAneney et al. 2016). Comparatively, explorations of insurance remain an underdeveloped element of bushfire literature; Booth & Harwood (2016) identify a significant gap in engagement with the concept of insurance in bushfire research. Their own work identifies that individual engagement with insurance itself can present uncertainty and anxiety; ‘it is a risk in and of itself’ (2016, p. 50). Within their study, they identified that for those without insurance, ‘it makes more sense to avoid the risk of insurance and instead face the risk of rebuilding within a collective response to a major bushfire’ (2016, p. 50); while for those with insurance, ‘the riskiness of insurance appears to undermine the logic of having insurance and thus appears likely to lead to trade-offs premised on supposition (2016, p. 50).

A review of the literature demonstrates that bushfires include quantitative, calculable factors on fire likelihood, such as spatial information and resource or asset vulnerability (Thompson, MP et al. 2015). Calculability may be based on levels of human presence (Badia-Perpinyà & Pallares-Barbera 2006; Massada et al. 2011; Price & Bradstock 2014; Sirca et al. 2017); housing spatial distribution and density (Theobald 2001; Hammer et al. 2004; Stewart et al. 2007; Lampin-Maillet et al. 2009; Galiana-Martin, Herrero & Solana 2011); typology, spatial distribution and structure of burnable vegetation (Viedma, Angeler & Moreno 2009), its water content and flammability (Sirca et al. 2017); and interactions with weather and topography (Pyne, Andrews & Laven 1996; Díaz-Delgado, Lloret & Pons 2004; Caballero,



Beltrán & Velasco 2007; Koetz et al. 2008). Despite this, data for adjusting insurance premiums may not necessarily be readily available to insurers, or may not necessarily exist, and thus gaps emerge in the capacity to use insurance as a means for coping with bushfire.

These factors represent bushfires in a way that orders reality and makes bushfire governable in particular ways, with particular techniques, and for particular goals (Dean 1999). When considered alongside insurance schema, bushfire calculation factors represent not only a means through which to determine bushfire likelihood and severity, but also imply a moral dimension for the purchase of bushfire insurance; if such factors *are* calculable (and therefore, predictable), then it would be irresponsible *not* to purchase insurance for a bushfire event. As a feature of late-modernity, insurance not only *redistributes* risk (in the sense that individuals who are party to an insurance scheme are, whether they realise it or not, *pooling* their risk and sharing the financial burdens of each other's risks) (Abraham 1986), but also responsibility (Baker 2002). Baker (2002) writes:

Without knowledge of the potential for something good or bad to happen, we have no occasion to assume or assign responsibility for it. Once we have that knowledge — once we become aware of a risk— that risk becomes each individual's responsibility unless or until it is assumed or assigned elsewhere (2002, p. 33).

Insurance, therefore, creates a social construction of responsibility for risks; without insurance, an individual is assuming full responsibility for risks which are believed to be calculable and predictable. Baker (2002) illustrates that responsibility can be emphasised in five dimensions: accountability, trustworthiness, causation, freedom, and solidarity. *Accountability* involves the distribution of financial responsibility; the provision of a home and contents insurance policy makes the insurer (and all its party members accountable for any losses sustained to a property, rather than the occupant. Insurance institutions mark people as being responsible in the *trustworthy* sense, where a potential borrower can be trusted to repay a loan, even if disaster

strikes (2002, p. 41). Responsibility may be *causal*; when deciding to pay claims, insurance institutions will investigate who or what caused the event or situation out of which the claim has emerged (2002, p. 43). If a home is left uninhabited for a prolonged period of time, an insurer might contest the degree to which they can be held responsible for any damages, assuming a causal relationship between an insured resident leaving the property vacant and damages occurring to the property. Insurance can affect responsibility in the *freedom* or self-determination sense (2002, p. 41); given the stipulations of an insurance contract, personal autonomy may be restricted by the provisions of an insurance contract, and insurance becomes a form of social control in the Foucaultian sense through which various norms are regulated and internalised by the insured. Insurance also reflects responsibility in the form of *solidarity*. As an example, following the 2019-2020 Australian Bushfires, bushfire recovery efforts have taken priority in the Australian Federal Governments \$5 billion budget surplus, with a \$2 billion fund established to help families, employers and local councils to recover from the fires (Crowe 2020). Thus, bushfire victims have been underwritten against the loss of their property and livelihoods by the Federal Government, while the Australian taxpayer has acted in solidarity by taking uniform responsibility for the program.

## **2.4: Chapter conclusions**

In late-modernity, risks are complex. Sociocultural theories involve recognising risk in terms beyond technical and realist perspectives; instead considering the changing contexts of time and culture in risk understandings. When understood as social facts, risks do not necessarily have an analogue with 'physical facts', and thus the beliefs about the dangers involved with certain hazards morph and distort across cultures and time periods, with different risks being emphasised to greater and lesser extents.

Critically, the risk society and governmentality perspectives illustrate the changing nature of risks in late-modernity. Reflexivity and reflexive modernisation mean that individuals have a greater and lesser degree in their ability to engage with resources, consider risks, and assess the opinions of experts. Further, modernisation involves the encounter of *new* risks, for which individuals have limited pools of experience to draw from to assist in navigating such risks; indeed, risks have become highly unique to the individual. Governmentality perspectives involve the labelling of risks that are then presented to society; risks are not so much 'managed' as they are simply 'communicated', wherein the individual is provided with certain tools which have been defined as useful to countering what has been defined as a risk, and thus the onus of managing the negative impacts of a given risk are placed upon the individual.

Individualisation, technology, construction and reconstruction of knowledge, and insurance mechanisms are hallmarks of late-modernity, and through these hallmarks, various risk mitigation and management strategies emerge. These are particularly important when considering the experiences of URI residents and their perspectives on bushfire risk; without an understanding of individualisation, technology, constructions of knowledge, insurance mechanisms, and the various sociocultural perspectives of risk which underpin them, an examination of the ontological security structures of URI residents would not be possible.

# **Chapter 3: Ontological Security, Convention, and Navigating Late-Modernity**

## **3.1: Introduction**

Ontological security is a critical part of the navigation of the risks of late-modernity, has thus far been under-represented and under-emphasised in the literature of natural hazard resilience generally, and bushfire hazard resilience specifically. As demonstrated in Chapter 2, bushfires can be characterised as a risk of late modernity, so it is logical to examine the ontological security structures of URI residents in order to ascertain their perspectives on bushfire risk and discover valuable insights into their desires, motivations and priorities along the URI.

This chapter therefore intends to establish the theory of ontological security as a conceptual framework to explore the risk perspectives of residents along the URI. While contemporary literature discusses risk perception at length (Kraus & Slovic 1988; Holtgrave & Weber 1993; Slovic 1999; Sjöberg 2000; Wakefield & Elliott 2000; Loewenstein et al. 2001; Slovic 2001; Slovic & Weber 2002; Slovic et al. 2004; Bateman et al. 2007), using the concept of ontological security as an analytical framework for understanding individual experiences with risk remains in an early developmental stage.

Theorists have used the concept of ontological security to explore issues ranging from global security and peace building (Mitzen 2006a, 2006b; Kay 2012; Browning & Joenniemi 2016), to cultural identity and discrimination (Noble 2005; Croft 2012), cultural trauma (Zhukova 2016), theology and spirituality (Possamai-Inesedy 2002), home ownership and mental health (Dupuis & Thorns 1998; Padgett 2007), television (Silverstone 1993), and workplace privacy (Brown, WS 2000). Wong (2018) identifies ontological security as being a marginal concept in safety literature, yet it has a deep connection to risk. Jaeger et al (2013, p. 7) describe the relationship between ontological security and risk as one which ‘brings into

sharp relief the problem of achieving a balance *among rationalities* (original emphasis) between trust and acceptable risk’.

In the application of this theory to understanding attitudes toward imagining highly destructive events to home and lifestyle, several particularly notable works have been produced. Harries (2008) research into the ontological security structures of flood risk residents in the United Kingdom demonstrated that through careful examination of ontological security structures, seemingly illogical, irrational or counter-intuitive beliefs about personal vulnerability to critical events make sense when examined as mechanisms to protect esteem needs, if possibly at the cost of physical needs. When faced with the choice of defending and fortifying their homes against flood, participants in Harries’ study reported feelings of discomfort; as to defend or fortify one’s home against the possibility of flood challenged the pre-existing notion that one’s home was a safe place. Participants in the study preferred to think of their homes as innately safe places and associated with nature as a positive or benign moral force, rather than as a source of danger. Participants also preferred to think of society as a competent protector of last resort and were reluctant to accept an individual need to protect themselves. Harries findings are concurrent with Jaeger et al’s (2013) position of unpacking the ‘hidden’ rationality behind risk choices, in that seemingly irrational choices can be constructed as rational, if that rationality is predicated on a rationality of ontological security, rather than a rationality of physical security.

This chapter, therefore, presents the theory of ontological security as the theoretical framework through which the attitudes of householders at risk of bushfires along the urban-rural fringe were examined, contextualising the responses of residents in the interview study.

### **3.1.1: Chapter overview**

The first section of this chapter provides a detailed description of the theory of ontological security and establishes the theory as an analytical framework useful for

interrogating the interview data. Using Giddens (1991) as the central theorist, this section examines the concept of ontological security as a fundamental element of self-identity, and describes several elements relevant to the construction of ontological security. An understanding of these elements facilitates the research design, so that data collection and analysis can be structured to best examine the ontological security structures of URI residents, and any influence these structures might have on URI residents' bushfire risk perspectives.

The second section of this chapter introduces the idea of *convention* as a means to further supplement the theoretical framework. Originally conceived as the idea of interpersonal solutions to large scale, recurrent coordination problems (Lewis 1969) encountered in social scenarios, conventions are intrinsically linked to the paradigm of *trust* that is essential to ontological security. Social theories of risk are inseparable from theories of trust (Ekberg 2007, p. 356), with trust presuming a leap of commitment (Giddens 1991, p. 19), in which individuals must take a risk and rely on other persons, as well as on systems (Giddens 1990, p. 88). Trust (and distrust) interact with predictability, regularity and transparency, and thus, individuals trust that others will observe and return particular conventions and are insecure when they do not. The idea of conventions appears sporadically throughout ontological security literature, but is itself a rich area of study (Lewis 1969; Burge 1975; Carter & Patterson 1982; Brown, DW 1995; Delgado 2002; Handel 2003; Perry et al. 2003; Marmor 2009; Del Mar 2010; Morgan, WJ 2012). It is the position of this research that the mechanisms through which people solve coordination problems within their environments and establish shared conventions of meaning are fundamental to constructing ontological security.

The third section of this chapter provides the justifications for ontological security as the theoretical framework through which the research phenomenon was interpreted and the research was conducted. While contemporary theories of risk communication, perception and management are essential to the task of preparing vulnerable communities for hazardous

events, I believe that clues to human motivation for bushfire preparation could be found through an examination of the ontological security structures of the target population, and thus aims to contribute to the growing body of knowledge of ontological security studies.

By the end of this chapter, an intersection between the previously explored schools of risk theory and the theory of ontological security as described by Giddens (1991) will be established, and the theory of ontological security presented as a useful framework for evaluating residential perspectives of bushfire risk in communities along the urban-rural interface. The mechanisms through which people define, process and respond to risks requires an understanding of the complex motivations and needs of human psychology; needs which are located centrally in the desire for ontological security. This research attempts to illustrate the interconnected nature of risk perspectives and ontological security, and in doing so, this chapter will serve as an important theoretical framework capable of interpreting the interview data.

### **3.2: What is 'ontological security'?**

Ontological security as a field of study can be traced back to the writings of R.D Laing, in his work *The Divided Self: An Existential Study in Sanity and Madness* (1960). Laing sought to challenge conventional, medically based psychiatry, arguing that mental health was not simply a biological condition, but something that also had to be understood socially (Croft 2012, p. 220). In his work, Laing described the idea of an *ontologically secure* person: a person who may have a sense of their presence in the world as real, alive, whole, and in a temporal sense, continuous (1960, p. 39). By contrast, an *ontologically insecure* person is one who in the ordinary circumstances of living may feel more unreal than real, and that to whom the ordinary circumstances of everyday life afford a perpetual threat to his or her existence (1960, p. 39). Laing focused much of his descriptions around ontological *insecurity*, where ontological

insecurity is a state of being in which the essence of identity itself is threatened. He recounts the story of his patient 'James', who made the complaint that he could not become a 'person':

He had no 'self'. 'I am only a response to other people, I have no identity of my own.' He felt he was becoming more and more 'a mythical person'. He felt he had no weight, no substance of his own. 'I am only a cork floating on the ocean'. This man was very concerned about not having become a person: he reproached his mother for this failure. 'I was merely her emblem. She never recognised my identity.' In contrast to his own belittlement of and uncertainty about himself, he was always on the brink of being overawed and crushed by the formidable reality that other people contained. In contrast to his own light weight, uncertainty and insubstantiality, they were solid, decisive, emphatic and substantial. He felt in every way that mattered others were more 'large scale' than he was (1960, p. 47).

Laing's early writings on ontological insecurity formed the basis of contemporary ontological security thought. Laing points out that while it is easy, as individuals, to take for granted the experience of being oneself, different from the rest of the world and having inner consistency, substantiality and self-worth (1960, p. 41), ontological insecurity is characterised by a fragility of self-identity, where identity is constructed only in relation to external agents. Ontological insecurity can thus be linked to other forms of psychiatric illness; borderline personality disorder, for instance, involves 'problems in establishing and maintaining a stable and coherent sense of self' (Gunderson 1984, p. 8), with borderline personality patients being described as experiencing disintegration of the self (Herman & van der Kolk 1987) and 'annihilation panic'<sup>4</sup> (Adler 1985).

In the late 20th century, the term *ontological security* was used for sociological exploration. In *Modernity and Self Identity*, Giddens (1991) outlined his theory of ontological security. Like Laing, Giddens described ontological security as a fundamental aspect of the

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<sup>4</sup> For a comprehensive literature review on annihilation anxieties, see Hurvich (2003)



self-identity and psychological make-up of all individuals and added that a healthy and robust sense of ontological security was a key feature for the navigation of the risks inherent within late-modernity. Giddens (1990, 1991) states:

It [ontological security] refers to the confidence that human beings have in the continuity of their self-identity and the constancy of the surrounding social and material environments of action. A sense of the reliability of persons and things, so central to the notion of trust, is basic to feelings of ontological security; hence the two are psychologically related. Ontological security has to do with 'being' or, in the terms of phenomenology, 'being in the world'. But it is emotional, rather than a cognitive phenomenon, and it is rooted in the unconscious. (1990, p. 92)

and;

To be ontologically secure is to possess, on the level of the unconscious and practical consciousness, 'answers' to fundamental existential questions which all human life in some way addresses. It is to know, virtually all of the time, in terms of some description or another, both what one is doing, and why one is doing it (1991, p. 47).

Giddens' approach to ontological security differs from Laing's, who focused on insecurity, and tended toward the clinical, despite a social focus. As such, ontological security in a Giddensian sense can be understood via the connections and linkages between people, communities and societies. It is primarily related to feelings of stability, normalcy, routine and reliability. It is the capacity to organise the threats and challenges to one's identity that are presented by uncertain aspects of life. It is the belief that expectations that are held in the social-material world can be reasonably relied upon, will be realised, and will come to pass. These expectations take various forms; expectations such as the identity of objects, of other persons, of the self, of society, of situations, and of contexts. Ontological security is reinforced through the realisation of these expectations; as the expectations an individual hold regarding the social-

material world come to pass, they become further grounded in these expectations as being the 'normal' parameters of everyday life.

### **3.2.1: Ontological security in disaster, hazard and critical situation research**

Scholars have also recognised the importance of ontological security structures in disaster, natural hazards and critical situation research. Commenting on the media's role in risk communication, Bainbridge & Galloway (2010) described immediate post-Black Saturday discourse in terms of the damage experienced to ontological security structures. Citing Weick (1993), they describe the 2009 Black Saturday fires as a 'cosmology episode' (Bainbridge & Galloway 2010, p. 100), wherein 'people suddenly and deeply feel that the universe is no longer a rational, orderly system,' and that 'what makes such an episode so shattering is that both the sense of what is occurring, and the means to rebuild that sense collapse together' (Weick 1993, p. 633).

Bainbridge & Galloway (2010) explain that the damage caused by the Black Saturday fires was not limited to a mere physical dimension, but also occurred in the form of an attack on ontological security. As previously reliable wisdom regarding bushfire response was destroyed, so the emotional resilience provided by the availability and reliability of that wisdom was simultaneously pierced. By challenging both the sense of mastery people felt they held over the environment (Ryff & Keyes 1995), and the trust structures connected to the assumption that authorities could manage any threats, and had always been able to, the fragility of life's structure and order could no longer be ignored.

Hawkins & Maurer's (2011) research of communities in post-disaster stages used ontological security theory to uncover insights into people's feelings of attachment to people, places and landscapes. They suggested that residents of post-Katrina New Orleans faced a disruption of their sense of ontological security through the disintegration of reliable routines.

In the wake of the disaster, affected families experienced a breakdown in their social fabric at the individual level (friends, relatives, family members having been displaced or separated), and at the structural/community level (houses of worship, favourite shops, favourite hangout spots and so on no longer existed). Residents reported that by being separated from their physical community and from known social networks, they were besieged by feelings of uncertainty and disruption to their sense of safety in the environment. Study participants also reported that simply not knowing where to go to get help and find information was destabilising; since there was no capacity to achieve certainty in the landscape, ontological security was unachievable.

Reflecting on community and clinical observations of people in various emergencies, Gordon (2004) describes the undermining of social fabric in communities affected by emergencies. Though he does not use the term ontological security specifically, Gordon describes a process of social debonding: a disconnection which accompanies a profound disruption of the pre-existing continuity of physical, emotional and social life (Gordon & Wraith 1993). This process of social debonding as described by Gordon is highly reminiscent of Laing's (1960) original idea of ontological insecurity; much like Laing, Gordon describes qualitative dimensions of social debonding such as a disconnection with friends, family, places, other people, future ambitions, and even one's own physical body and personality. Gordon (2004) provides the example of the survivor of a massacre, stating:

When a survivor of a massacre in a large building heard shots in the next room, he moved into a state without past or future; nothing else existed in his life except the present moment, the gunman and decisions that would determine if he and those he was responsible for lived or died. For many months afterwards, he lost any sense of meaning or value in the rest of his life, plans, ambitions and relationships. Whenever an incident reactivated flashbacks of the trauma, he detached from his current life and its activities (2004, p. 16).

Gordon emphasises that 'social fabric' needs to be understood to develop techniques for its recovery. He states that disasters emphasise that communities function as wholes, or systems in which their constitutive elements affect each other in a manner too complex to be mapped by simple linear relationships (Dyke & Dyke 2002).

Similarly, Cox & Perry (2011) describe two rural communities affected by bushfire in British Columbia, Canada, identifying how the fires revealed that ideas of permanence, predictability and stability (which are established through routine performances) were only an illusion. They describe the fires as acting as a 'discursive insertion point in which routine social practices were momentarily disrupted and the smooth functioning of the background knowledge of those affected was interrupted' (2011, p. 400), a process described by Giddens (1979) as 'de-routinisation of living', where the reconstruction of identity and the formation of new routines must take place.

### **3.3: Themes of ontological security**

Based on an examination of the ontological security literature and other related literatures, I have segmented the discussion of ontological security into five important themes, which form the framework through which the research data could be interrogated. Producing a definitive and exhaustive list of the component parts of ontological security structures would merely produce an inventory, rather than provide meaning-makings, and such a task would be difficult given that ontological security is predicated upon many invisible background structures and expectations that may not be apparent until they are subverted or contravened. This phenomenon is best illustrated through a brief discussion of Garfinkel's (1967) breaching experiments.

Garfinkel illustrated how 'common culture' is constructed through invisible background structures of shared meaning; with socially sanctioned grounds of inference and

action that people use in their everyday affairs, and that people assume that other people use in the same way (1967, p. 76). In his breaching experiments, Garfinkel's students conducted conversations with members of their social circle, and either ignored or violated 'common culture' norms as a means to expose these background processes. One such exchange between a participant and member of their social circle demonstrates how the violation of shared understandings of meaning suddenly renders them visible (1967, p. 42):

**Friend:** Hi Ray. How is your girlfriend feeling?

**Student:** What do you mean, 'How is she feeling?' Do you mean physical or mental?

**Friend:** I mean how is she feeling? What's the matter with you? (He looked peeved)

**Student:** Nothing. Just explain a little clearer what do you mean?

**Friend:** Skip it. How are your Med School applications coming?

**Student:** What do you mean, 'How are they?'

**Friend:** You know what I mean.

By ignoring the implicit meaning of the friend's questions and engaging only with the explicit meaning, Garfinkel's student exposes the shared understanding of meaning which would under ordinary circumstances be taken for granted within the parameters of the conversation.

The breaching experiments and the background nature of expectation and shared meaning are highly relevant to the study of ontological security. Structures of ontological security can be similarly hidden and invisible; that is, not deliberately or calculatively rationalised, but instead taken for granted as a part of the trust in expectation and routine. These structures may exist at a social-individual level (expectations between individual actors *vis-à-vis* Garfinkel), at a social-community level (expectations between an individual actor and a community, such as the ontological expectation that cars meeting perpendicular to each other at a traffic light intersection will obey the traffic signal lights), and even as a construction between the individual and physical environment. Most ontologically secure people would

have an expectation that the sun will rise in the morning, remain in the sky during the day, and set during the evening, yet during a solar eclipse the taken-for-granted character of that expectation would be revealed. For some ontological security structures, existence may only be noticeable during subversion of the expectations which underwrite them, and so they resist detection until such subversion occurs.

Across the literature, scholars have been able to gather ontological security perspectives and discuss their implications in relation to a wide range of problems and across a variety of topic areas. In the below sections, these works are discussed. Between them, I draw out five themes across the literature which are useful for creating the model for examining the ontological security structures of URI residents presented in this thesis. These themes are 1) biographical continuity, 2) conformity with self-integrity, 3) *umwelt* and routine, 4) practical consciousness, and 5) cocoons of trust structures.

### **3.3.1: Biographical continuity**

*Biographical continuity* refers to the desire to keep a personal narrative alive. Giddens writes that 'a person with a reasonably stable sense of self-identity has a feeling of biographical continuity which she is able to grasp reflexively and, to a greater or lesser degree, communicate to other people.'(1991, p. 54). Biographical continuity is the capacity to keep a particular narrative going; to have a 'story' of how one sees one's life. The narrative is constructed of things such as individual experiences, traits, preferences, desires, dislikes, and must be fundamentally communicable.

Biographical continuity is predicated in *continuity theory*, wherein individuals undergo continuous evolution (Buckley 1967; Bailey 1994; Atchley 1999). Within continuity theory, individuals are 'presumed to be dsynamic, self-aware entities who use patterns of thought

created out of a lifetime of experience to describe, analyse, evaluate, decide, act, pursue goals, and interpret input and feedback' (Atchley 1999, p. 97).

Biographical continuity is often cited in relation to studies of ageing and aged care (Becker 1993; Chamberlayne & King 1997; Sanders, Donovan & Dieppe 2002; Edvardsson, Fetherstonhaugh & Nay 2010), with an increasing recognition of biographical continuity needs highlighted in aged care policy research (Clarke, A, Jane Hanson & Ross 2003; Aasbo et al. 2016). Harnett and Jönsen (2017) examined the personalisation of nursing home care through biographical continuity, highlighting a tension between external biographical references (who the resident was before they came to the facility), versus internal biographical references (who the person is within the facility) in deciding how to provide the best level of care. External references pointed to previous habits (such as going on daily walks, and claiming that the person should be able to continue such habits), while internal references pointed to the adjustment of the person 'here and now', with recognition of their current care needs and frailties (2017, p. 3).

Biographical continuity is an essential component of ontological security. The possession of individual experiences, traits, preferences, desires and dislikes, all of which are fundamentally communicable to others, is important to both establishing the boundaries of the self, as well as performing individualisation choices themselves, which is fundamentally important for agency. Social agency, however, takes place within an external structure, and is tempered by society, culture, and interactions which can destabilise security. Croft (2012) discusses biographical continuity in relation to the extent with which British-Muslims experienced difficulty sharing and having their biographical continuity recognised by others post 9/11. Croft notes that a predominant point of ontological security for British-Muslims is the construction of their identity around their faith, nationality, regional identity, and appearance to family and friends. Following the period since 9/11, such external signifiers were

designated through labels of dangerousness, otherness, and through attacks by contemporary 'Britishness' on British-Muslim culture. As a result, British-Muslims lost a part of their biographical continuity. Elements of British-Muslim biographical continuity (culture, dress, norms) had suddenly become an object of fearfulness, resulting in the loss of British-Muslims ability or confidence to share their narrative and to be recognised and included by others.

Noble (2005) observes a similar fragmentation of biographical continuity take place in his study of Australian migrant families post-9/11. Noble describes how experiences of racism, particularly since 2001, undermine the ability of migrants to feel 'at home' in Australia. Noble describes the experiences of Alya, a 40 year old Egyptian born Muslim, who states that whilst before 9/11 she felt fairly invisible ('just a person going around, doing their own thing'), after 9/11 she felt noticeably 'alien', and that 'people were looking at me' (2005, p. 9). Alya's experiences are exemplary of this fragmentation of biographical continuity; by losing her ability to be recognised by others as 'just a person going around, doing their thing', Alya's capacity to communicate her biographical continuity was diminished, her self-identity was challenged, and her sense of ontological security was threatened. Alya's experience was so fracturing that she no longer felt comfortable leaving the confines of her own home, preferring instead to stay in an environment where her biographical continuity would not be challenged<sup>6</sup>.

### **3.3.2: Conformity to self-integrity**

If biographical continuity is the desire to keep a particular narrative alive, then *conformity to self-integrity* is the external manifestation through which this desire is achieved. Biographical continuity choices are manifested in the world through individual actions, and thus conformity with self-integrity is important for personal agency and aligning ones' self with one's beliefs.

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<sup>6</sup> See Dupuis and Thorns (1998) for an explanation of the home as a focal point of ontological security.



Acting in conformity with self-integrity allows for the physical manifestation of biographical continuity, reinforcing self-identity and ontological security. Dress, for example, is a simple example of conformity with self-integrity. In all cultures, dress is more than a simple means of bodily protection, but is rather a means of symbolic display and a way of giving external form to narratives of self-identity (Giddens 1991, p. 62).

When a division occurs between the biographical narrative of an individual and their capacity to perform the actions which will enable them to conform to their self-integrity, the result is feelings of disembodiment and ontological insecurity. Giddens writes that prisoners of Nazi concentration camps subjected to horrendous physical and psychological pressures experienced states of dissociation of body and self; for them, feeling ‘out of the body’ allowed a distance from the physical deprivations which the body suffered (1991, p. 59). Dissociation and disembodiment are attempts to transcend dangers and feel safe (1991).

Importantly, conformity with self-identity is a reflexive<sup>7</sup>, emotional and unconscious activity. In every microcosm of behaviour, attempts are made to act in a way that conforms to self-integrity, without asking the question: 'Is this something that I would do?'. While for moments in time that might greatly affect the course of our lives there are undoubtedly conscious and deliberate questions about whether one course of action is more in accordance with 'ourselves' than another, conformity with self-integrity supposes that much of individual behaviour comes instead from an unconscious, emotional position as actors try to fit their 'actions' to their 'story'. Such reflexivity contributes to the difficulty through which this conformity could be examined; they are, after all, background processes.

A fundamental incompatibility between how a person sees their self, and the circumstances a person finds their self in —and is forced to address— creates a feeling of

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<sup>7</sup> Reflexive as in ‘responding automatically’, rather than *reflexive* as describing a constant appropriation of new knowledge as the basis for social organisation and self-identity.

dissociation. A stressful event such as a minor car accident on an ordinarily routine drive home might create temporary feelings of surreality and disembodiment, whilst the sudden death of a significant other creates major feelings of surreality, forcing an individual to consider a different reading of the narrative that they had unconsciously written of their own life. To illustrate this idea, Akrich & Pasveer's (2004) research on women's experiences of embodiment and disembodiment during childbirth is useful. They describe Carol, who during the course of childbirth would fluctuate between an embodied and disembodied state:

She starts, with the help of her sister at first, to do the breathing exercises learned in antenatal classes. Her sister then leaves her alone with her husband. From then on she describes alternate moments: between contractions, when she finds herself in a 'normal' state, and when with music in the background, she discusses the final choice of a name with her husband; and during contractions, when she concentrates on her breathing, accompanied by her husband who squeezes her hand to keep her from 'going astray'. In other words, she goes from moments in which she is in a state of relative indifferentiation vis-a-vis her body—the one that becomes the transparent mediator again of its relationship with the world—to a state of 'dissociation' in which her body-uterus or body-in-labour is 'dys-appearing' [sic]. Her 'agency' is correlatively modified. She concentrates on an activity that strongly engages her body, as if, faced with the activity of a part of herself that becomes autonomous, she had to re-embody herself (2004, pp. 71-2).

During Carol's experience of childbirth, she alternates from her normal state between contractions, and her state during contractions. During contractions, Carol's body acts autonomously and beyond her control; to re-embody herself, Carol concentrates on the activities over which she can control (control of breathing, squeezing her husband's hand, vocally listing the colours of a painting on the wall). These actions can be viewed as choices aligning with conformity to self-integrity; a means through which Carol can achieve

biographical continuity (in this case, control over the boundaries and movements of the bodily self).

### **3.3.3: Umwelt, and the importance of routine**

*Routine* is a vital component of the sense of ontological security. The word 'routine' has multiple readings; one can *have* a routine which they adhere to (waking up early, going to the gym, coming home, eating breakfast, going to work in that order), while something can *be* 'routine' (an action taken with sufficient regularity such that a person has achieved mastery over it).

Giddens suggests that *routinisation* is critical to the psychological mechanisms whereby a sense of ontological security can be achieved, driving 'a wedge between the potentially explosive content of the unconscious and the reflexive monitoring of action which agents display' (1984, p. xxiii). Ontological security is thus predicated in the routines of ordinary, everyday life, and is founded on an 'autonomy of bodily control within predictable routines and encounters' (1984, p. 64).

Möllering (2006) examines routine through its fundamental connections to trust. Routine here suggests a broad notion of trust and 'taken-for-grantedness' (2006, p. 52), where routines are being performed without questioning their underlying assumptions, without assessing alternatives and without giving justifications every time (2006, p. 52). Routines are regularly and habitually performed programs of action or procedures (2006, p. 69), with the reality of everyday life maintaining itself by being embodied in routines (Berger & Luckmann 1966, p. 149).

Misztal (2001) describes the preservation of routine in daily life as a grounds for reinforcing normality in both the self and others, through which the unpredictability of reality

can be concealed. For Msztal, 'everyday life preserves its predictability and takes on the appearance of normality thanks to routinised practices whose comforting presence suspends the arbitrary character of reality' (2001, p. 315). Thus, routines exist as a confirmation of expectations; repeat experiences in which an expectation has been realised and can in future be expected to be realised again. Giddens states that 'routine is integral both to the continuity of the personality of the agent, as he or she moves along the paths of daily activities, and to the institutions of society, which are such only through their continued reproduction' (1984, p. 60). Individuals develop a framework of ontological security of some sort, based on routines of various forms, with people handling dangers, and the fears associated with them in terms of the emotional and behavioural 'formulae' which have come to be a part of their everyday thought (Giddens 1991, p. 45).

Wakefield & Elliot (2000, p. 1140) describe ontological security as 'having confidence in the routine and reliability of persons, places and things', while Hawkins & Maurer (2011, p. 144) describe routines as 'creating a sense of cognitive order and sense of safety and trust in the world, functioning as a coping mechanism against existential anxiety and enhancing psychological wellbeing'. Dupuis & Thorns (1998), in their examination of the home as a nexus of ontological security, describe the home as a spatial context in which the day-to-day routines of human existence are performed, while Mitzen (2006a, p. 273) describes routines as 'responses to stimuli that are relatively automatic or habitual' wherein for a range of things that happen, the actor does not weigh alternatives or 'rationally update', and that by systematically removing some 'questions' from the table, routines help us bring our threat environment under cognitive control. Disruptions to routine are typically experienced as unsettling, and care is taken to ensure that events unfold predictably (Cassell 1993, p. 14).

In performing an examination of routinisation, the term *umwelt* emerges. Giddens (1991) and Msztal (2001) both use Goffman's (1971) version of *umwelt* to describe the

phenomenon of regularised action in human life. *Umwelt* refers to 'the core of accomplished normalcy with which individuals and groups surround themselves' (1971, p. 252). In human beings, *umwelt* is used to describe a 'moving' world of normalcy which the individual takes around from situation to situation, a feat which also depends on others who confirm, or take part in, reproducing that world. Indeed, identities are performed within the 'everyday' world, through familiar environments, preoccupations, social experiences and social roles (Jones & Raisborough 2016).

A simple imagination of *umwelt* might involve a group of commuters on a train. Each of the commuters helps to produce the world of normalcy on the train by performing particular actions specific to, and acceptable within, the social parameters of that context; reading newspapers, listening to music, talking quietly or keeping to themselves, etc. Each commuter observes the actions of the other commuters and reproduces their conventions; in other words, they observe the 'normal' way one behaves whilst on a train, with cues taken from each other on how 'normal' is defined in this context.

*Umwelt* can be thought of as the web of expectations, routines and habits that make biographical continuity possible. It produces what Giddens refers to as 'a feeling of bodily and psychic ease in the *routine* [my emphasis] circumstances of everyday life' (1991, p. 126). Given that a sense of ontological security is constructed from various assumptions the individual makes about themselves, other people, and the world, it is no surprise that much of the literature concerning ontological security revolves heavily around the idea of routine.

The routines fixed in place by *umwelt* are held reflexively; that is, not consciously. The expectations of how to behave appropriately whilst on a train are not consciously held in the mind, at least not until other, less contextually-appropriate behaviours are noticed, at which point a commuter might wonder why the person breaching those expectations is not adhering to the social parameters of the situation. Nonetheless, a commuter who notices strange or

inappropriate behaviours on a train may not necessarily be particularly disturbed by them, and might respond with bemusement, or irritation, or indifference. This flexibility is a result of what Mitzen (2006a) refers to as *healthy trust*: the ability to maintain a critical distance from routines. With healthy trust, routines exist, and enable agency, but by being held at a critical distance, there is a tolerance for uncertainty to take place. As commuting on a train is a routine that is perhaps unlikely to be a fundamental part of the psychological makeup or biographical narrative of an individual, it is reasonable to suggest that this is a routine that can be held at a critical distance, allowing for a certain tolerance of uncertainty to take place. The inverse of healthy trust is *rigid trust*; wherein routines are treated as ends in themselves, followed blindly or compulsively without reflection, and all agentic energy is directed toward maintaining the routine rather than toward experimentation, learning or growth (2006a, p. 274).

### **3.3.4: Practical consciousness and existential bracketing**

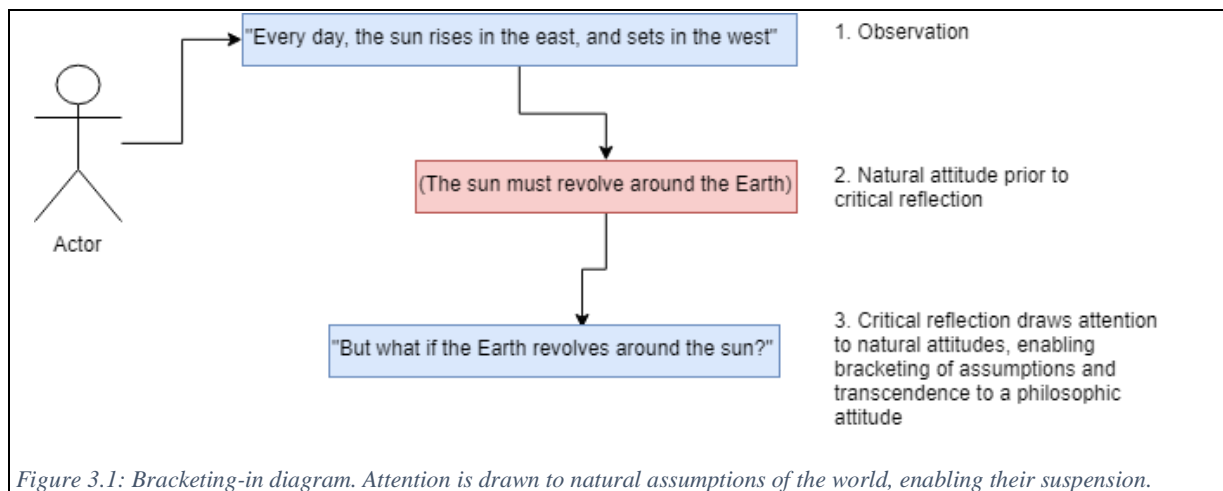
*Practical consciousness* is defined as ‘tacit knowledge about the circumstances of one’s social actions’, where in the vast majority of social situations, individuals routinely draw upon knowledge without questioning its foundation (Lippuner & Werlen 2009, p. 39). It differs from *discursive consciousness*, which Giddens describes as ‘being able to put things into words’ (1984, p. 45). Through practical consciousness, existential and practical possibilities are 'bracketed', allowing much of the fragility of life's structure and order to be ignored. To go about everyday tasks without suffering paralytic existential fear requires the compartmentalisation and 'bracketing' of an almost infinite range of possibilities available in any given situation at any given time. The simplest actions, such as walking without falling over, avoiding collisions with objects, crossing the road or using a knife and fork had to be learned in circumstances which originally had connotations of fatefulness; indeed, the 'uneventful' character of much of day-to-day life is the result of a skilled watchfulness that only

long schooling produces (Giddens 1991, p. 127). Practical consciousness can be thought of as the ability to experience *umwelt*, and traverse routine pathways without a fear of the chaotic, unpredictable and uncontrollable elements of life eroding certainty and control. On practical consciousness, Giddens (1991) states:

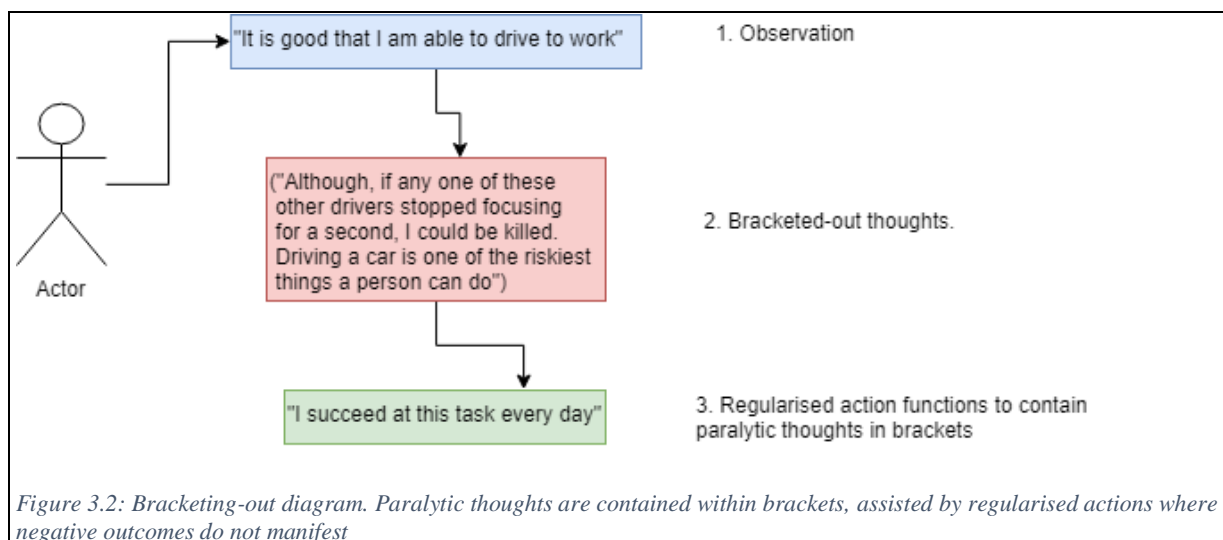
Practical consciousness is the cognitive and emotive anchor of the feelings of ontological security characteristic of large segments of human activity in all cultures. The notion of ontological security ties in closely to the tacit character of practical consciousness – or, in phenomenological terms, to the ‘bracketings’ presumed by the ‘natural attitude’ in everyday life (1991, p. 35).

Both ‘bracketings’ and ‘natural attitude’ are terms from phenomenology; Husserl uses the term ‘natural’ to indicate what is original or apparent prior to critical or theoretical reflection (van Manen 1990; Dowling 2007), and refers to ‘the standpoint of a person going about his everyday business in his accustomed world’ (Levasseur 2003, p. 410). In Husserl’s phenomenology, bracketing refers to the suspension of one’s natural assumptions about the world (2003, p. 411).

Here, a distinction must be made between bracketing-*in* and bracketing-*out*. To place ‘brackets’ around natural assumptions could be interpreted as to draw attention to them, suspend them and challenge, yet a different interpretation may be to remove existential possibilities from consideration. Thus, one can bracket-*in* by drawing attention to one’s natural assumptions and thereby enable transition from a ‘natural attitude’ to a ‘philosophic attitude’ (Steward & Mickunas 1990) (*Figure 3.1*)



Bracketing may also be imagined as to bracket-out; or to take for granted the tacit character of practical consciousness and store away questions that the individual does not possess answers to (Figure 3.2).



The formulation of practical consciousness is predicated on achieving what Giddens describes as 'basic trust' during infancy. Basic trust is developed through the loving attentions of early caretakers, and is connected in an essential way to the interpersonal organisation of time and space (Giddens 1991, p. 38). From the early days of life, habit and routine play a fundamental role in the forging of relations between infant and caretakers. The infant develops



an emotional acceptance of absence: the 'faith' that the caretaker will return, even though she or he is no longer in the presence of the infant(1991, p. 38). 'Core connections are established between routine, the reproduction of coordinating conventions, and feelings of ontological security in the later activities of the individual' (1991, p. 38). Through the maintenance and execution of routine behaviours and habits, the individual forms a bulwark against threatening anxieties(1991, p. 39), and creates meaningful connections to a stabilised world of objects and persons. Inversely, an individual who was deprived of, or formed poor basic trust in their early childhood may be haunted by feelings of unreality, and find difficulty in accepting the continuity of persons, objects and things, whilst a blind commitment to established routines is suggested to be a sign of poor basic trust and neurotic compulsion, in which the individual fails to emotionally accept the absence of the caretaker during infancy (1991, p. 40).

When practical consciousness is formed, individuals achieve emotional inoculation against existential threats. The trust gained from an early sense of ontological security provides a protective barrier which screens off potential threats and dangers that even the most mundane activities of day-to-day-life contain. This inoculation is fundamentally emotional in nature; it protects against future threats and dangers which allows the individual to sustain hope and courage in the face of whatever debilitating circumstances she or he might later confront(1991, p. 39). Giddens writes:

The sustaining of life, in a bodily sense as well as in the sense of psychological health, is inherently subject to risk. The fact that the behaviour of human beings is so strongly influenced by mediated experience, together with the calculative capacities which human agents possess, mean that every human individual could (in principle) be overwhelmed by anxieties about risks which are implied by the very business of living. That sense of 'invulnerability' which blocks off negative possibilities in favour of a generalised attitude of hope derives from basic trust (1991, p. 40).

Resilience to paralysis by existential and practical possibilities is a key component of ontological security, as it allows for the regularised human action of routines to take place. Much of regular human behaviour originally had immense connotations of risk and fatefulness attached; staying alive meant finding food sources by exploring into unknown territories, attempting to kill large, clawed, hoofed, protein-rich animals that did not wish to die, or experimenting with herbs and flora for medicinal purposes. For a toddler, the act of walking is a fateful occurrence; having never been attempted before, it has a high probability of failure with painful repercussions. By repeatedly succeeding at 'risky' behaviours, the fatefulness of such actions is diminished, and they quickly become regularised and routine.

The same is true of behaviours found in late-modernity. Driving an automobile in heavy traffic for the first time is a terrifying experience for any learner driver; but through the regularised action of navigating the traffic safely, a learner driver becomes less anxious about the dangers attached to the activity, and driving soon becomes an easy, normal and regularised task. This does not mean that the risks involved with driving are diminished<sup>8</sup>, but rather that the driver acclimates to the risks, develops a practical consciousness, and is able to perform the action, despite its risks.

### **3.3.5: Cocoon of trust structures**

Ontological security is further sustained by a *cocoon of trust structures* (Giddens 1991). The cocoon of trust structures is constructed in early life through *basic trust* (the general attitude of hope or faith in the world to make sense), as well as through other forms, such as confidence in experts to interpret risk (1991, p. 18), trust in social institutions, and trust in

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<sup>8</sup> According to the VicRoads Probationary Driver Kit for Parents, P1 Probationary drivers are more than eight times as likely to be involved in a casualty crash than Learner drivers.

social tokens such as money (1991, p. 18). Giddens' writes that these expert systems are primarily dependent on the idea of *trust*:

Trust presumes a leap of commitment, a quality of 'faith' which is irreducible. It is specifically related to absence in time and space, as well as to ignorance. We have no need to trust someone who is constantly in view and whose activities can be directly monitored...Similarly, there is no requirement of trust when a technical system is more or less completely known to a particular individual. In respect of expert systems, trust brackets the limited technical knowledge which most people possess about coded information which routinely affects their lives (1991, p. 19).

These trust structures are essential to maintaining the protective barrier which shields individuals from existential anxieties. Confidence in experts to interpret risk is one such aspect of this cocoon of trust structures. As Beck (1992b) states, modern day hazards differ greatly from the pre-industrial world; risks may often be highly technological in nature and require expert knowledge to interpret and address. Expert knowledge can be a salve for the uncertainties that accompany industrial society; by placing faith in experts to interpret and mitigate risk, trust structures remain to support biographical continuity, and therefore reinforce ontological security. Or, expert knowledge can be distrusted and neglected. Giddens suggests that 'attitudes of trust, as well as more pragmatic acceptance, scepticism, rejection and withdrawal uneasily coexist in the social space linking individual activities and expert systems' (1991, p. 7). Within the risk society, individuals are both compelled to trust and depend on expert systems to interpret risks, while the lack of consensus among experts has resulted in greater scepticism toward claims of 'truth' (Ekberg 2007, p. 357).

Trust in social tokens, such as money, follows a similar vein. Representational currency (physical money) is one such social token; physical money is created from materials that are lower than the value that the money itself represents. Nonetheless, individuals share meaning

that the money they hold is worth a certain amount and can be traded for goods or services equal to that amount. Searle (1995) describes these as *institutional facts*; facts which exist independently of individuals, but not independently of human institutions. A \$100 bill functions as a \$100 bill, whether a person believes so or not. However, if there were no human *institutions* left to recognise a \$100 bill, then a \$100 bill would cease to be a \$100 bill; and would instead be a piece of paper with some markings on it. Trust in social tokens is therefore a trust in the reliability of institutional facts. These facts are not necessarily limited to money, but can instead be things such as social conventions like returning a greeting, observing the rules of a queue, being quiet in a library, comporting one's self in public etc. By observing and then reproducing social convention, biographical continuity is maintained, and ontological security is possible.

Inversely, instances in which social conventions and norms are expected but are not reproduced breaches the cocoon of trust structures. It is easy to imagine the efforts of passengers on a train pointedly ignoring deviant behaviours from a single passenger that do not belong in that particular social context, waiting uncomfortably for the deviant to leave the train, or for the train to arrive at their own stop so that the passengers can return to their own routines, and trust expectations surrounding 'proper' social behaviour can resume. Such context-inappropriate behaviour produces dissonance between what is expected to happen and what is actually happening, thus generating ontological insecurity. By choosing not to adhere to unspoken social norms, the individual has ceased to reproduce the routines and conventions that maintain the biographical continuity of others, and in doing so exposes the fragile, tenuous nature of social life and the chaos that lurks beyond.

### **3.4: Ontological insecurity**

A critical feature of the sense of ontological security is that it protects *against* something: ontological insecurity. The 'security' of ontological security invokes ideas of protection and defence, and a healthy sense of ontological security mitigates challenges to the fundamental ontology of an individual's place in the world and the order of that world. The sense of ontological security constantly wrestles with aspects of social reality which challenge base understandings of the way the world 'should' work; and it is through these challenges that ontological security is threatened.

The 'perpetual threat' encountered in various circumstances of everyday life are well documented within various literature on this topic. Croft's (2012) examination of British insecuritisations of British-Muslim identities and Noble's (2005) examinations of migrants in Australia indicated how shifting perceptions of danger in society and a designation of Muslim identities as 'other' provided daily challenges to the ontological security structures of Muslim communities. Harries' (2008) observed discomfort in UK flood-risk residents, who were ontologically securitised at the thought of modifying their homes to fortify themselves against flood risk. Brown (2000) identifies the changing nature of technology and surveillance in the workplace as a factor contributing to ontological insecurity between workers and managers. To workers, technology affords a shrinking, threatening bubble of monitoring and surveillance by managers, taking place pre-offer (through reference checks, motor vehicle history reports, criminal history reports, etc), post-offer but pre-employment (through a battery of physical tests including EKG, X-ray, blood pressure readings, and in some cases blood and urine samples), and during employment (smart ID cards which provide management information about employee movements, voice and email surveillance, overt and covert CCTV monitoring, and data metrics such as keystrokes per minute and other KPI indicators) (2000,

p. 62). Such loss of privacy and constant transparency, Brown argues, raises the question of how employer inquiry can 'impinge on the inner self of workers' (2000, p. 62).

Ontological security and ontological insecurity are therefore in a state of constant struggle. Croft (2012) describes this struggle, stating:

It is the case that all—even those whose ontological security structures are robust— have a dread of ontological insecurity. Rather, ontological insecurity *is* dread. (2012, p. 231)

For Croft, dread *is* ontological insecurity, which ontological security structures try to contain. Dread is not the same as fear but is instead more tightly linked to anxiety. Whilst fear is a response to a *specific* threat and therefore has a definite object, anxiety disregards the object, and is rather a more generalised state of emotions from the individual (Freud 1974). There is also a distinction between the conscious awareness of anxiety, such as the anxiety one might face before an examination (which is closer to a fear response due a specific threat or undesirable outcome, such as poor performance or failure), and the free-floating character of anxiety that lacks any definite object. Giddens (1991) writes that:

The chaos that threatens on the other side of the ordinariness of everyday conventions can be seen psychologically as dread in Kierkegaard's sense: the prospect of being overwhelmed with anxieties that reach to the very roots of our coherent sense of 'being in the world' (1991, p. 37).

Dread, in the sense of being 'overwhelmed with anxieties that reach to the very roots of our coherent sense of being in the world' (1991, p. 37) occurs when the previously discussed facets of ontological security (biographical continuity, conformity with self-integrity, routines/umwelt, practical consciousness, and cocoon of trust structure) experience disruption. *Table 3.1* demonstrates the difference between an ontologically secure and an ontologically insecure person through a side-by-side comparison of the various components of ontological security an ontologically secure and an ontologically insecure person might have. Dread,

therefore, is that which ontologically secure entities struggle against and seek to avoid at all costs and can be exposed or caused by critical events which undermine ontological security. Following 9/11, Croft describes a dread of the Muslim 'other' that has been called into existence in terms of 'their' violence against 'us', and in terms of the dread of 'us' being subsumed by 'them' (Croft 2012, p. 231). Mitzen (2006a) describes dread as an inability to organise the threat environment, and thus, not get by in the world. Following 9/11, people in the US found it difficult to perform a range of tasks: go to work, cross a bridge, ride the subway etc. Since people could not cognitively organise their threat environment, they felt that *any* choice they made could potentially cause them harm (2006a, p. 273). Following the 2011 Fukushima Daiichi Nuclear Power Station accident, residents' experienced a decline in subjective well-being, citing anxiety about radiation and radiation-contaminated food, a disintegration of trust in government institutions and a negative willingness to return to their hometown after evacuation (Murakami, Harada & Oki 2017), while Otto et al (2006) found that flood-victims who held beliefs that the world was unjust experienced greater symptoms of anxiety, depression and social insecurity.

These examples go some way to describing the effects of challenges to ontological security, and in the case of URI residents in Designated Bushfire Prone Areas (DBPAs), bushfire hazards or other elements of the URI may present similar challenges to ontological security.

### **3.5: Conventions, social facts and environmental signals**

Ontological security is predicated on being able to experience the world in a predictable fashion. The ontologically secure individual performs routines, which generate predictable results, and experiences interpersonal relations and situations with a shared sense of meaning. These relations are predicated on the basic notion of trust. Though the individual cannot control

the actions of others, they trust that others will behave in a particular way in alignment with their own expectations.

When a driver progresses through a green traffic light at an intersection, they do so because they trust that other traffic will stop at the red traffic light adjacent to their path. The driver places his- or herself in a position of vulnerability to other drivers; he or she has no control over whether other drivers will proceed through the red light, but trusts that they will observe the signal, interpret a meaning from it, and correlate their behaviours appropriately.

Progressing through a green traffic light and stopping at a red traffic light are *conventions*. They are 'regularities of behaviour, sustained by an interest in coordination and an expectation that others will do their part' (Lewis 1969, p. 208). They are intended to be solutions to coordination problems (Morgan, WJ 2012), which arise when 'several agents have a particular structure of preferences with respect to their mutual modes of conduct; namely, that between several alternatives of conduct open to them in a given set of circumstances, each and every agent has a stronger preference to act in concert with the other agents, than his [or her] preference for acting upon any one of the particular alternatives' (Marmor 2009, p. 20). Conventions underwrite much of the regularised actions of human behaviour; there can be conventions relating to practically every activity a person can engage in, and to all aspects of action (Gilbert 1988, p. 316). Conventions establish a working trust between strangers, rather than a personal trust between acquaintances (Brown, DW 1995, p. 18). When one stranger holds a door open for another, a working trust is established that the first person will not slam the door shut as the second person attempts to pass through, despite the fact that the second person knows nothing about the temperament or proclivities of the first.

Convention is therefore a fundamental part of ontological security. Related strongly to *umwelt*, practical consciousness and the cocoon of trust structures, individuals rely on conventions and shared understandings to create a sense of stability and order against the



threatening chaos of others. Giddens (1991) contrasts this with the perspectives of individuals diagnosed with schizophrenia or similar illnesses, who are unable to manifest these shared understandings:

On the other hand, mental illness, particularly the various kinds of schizophrenia, reminds us of the fragility of the day-to-day conventions by which our experience both of social reality, and the basic parameters of existence more generally, is ordered. The paranoid schizophrenic, for example, might cause us to reflect on why we do not – as she or he does – see malevolence in a glance from another person or an accidental clash of bodies on the street (1991, pp. 204-5).

Thus, conventions are critical to the stability and routinisation of everyday life, yet are themselves fragile, leaving individuals exposed to others when shared conventions cannot be achieved.

### **3.5.1: Convention as coercion**

Conventions are social facts (Gilbert 1988), in that they are ways of acting, whether fixed or not, which are capable of exerting over the individual an external constraint (Durkheim 1964, p. 59). As social facts, they hold coercive power (1964, p. 59). Durkheim explains that social facts are ways of acting such that, if a member of a group acts in one of these ways 'of his own free will', then the coercive power of that social fact is 'not felt, or hardly felt at all' (1964, p. 51; Gilbert 1988, p. 245). However, as soon as someone attempts to act contrary to one of these ways, then 'he will feel constraining power' (Durkheim 1964, p. 52) (Gilbert 1988, p. 245).

Conventions are coercive. When a driver halts at a red traffic light, he or she is coerced into a behavioural choice (halting their vehicle). Though halting their vehicle is usually the best choice and is one generally made of the driver's free will, a decision to act contrary to the

accepted convention is met with constraining power. In this case, the constraining power is immediate and overt; the driver contravenes established rules and places themselves in the socially unacceptable position of progressing through the traffic intersection against the lights. They are constrained by the dangers of the choice (impacting or being impacted by another vehicle) from which the convention emerged or was designed to avoid, the reprimanding reactions of other drivers (blaring of horns, profanity) who immediately witness the contravention of the convention, and even law and order reactions designed to enforce the convention (red light cameras, being stopped by the police, etc.).

This example is purposefully conspicuous in order to demonstrate the nature of coercion in convention. Conventions are not always so obvious; indeed, most conventions have a taken-for-granted quality and are merely 'the way we do things'. Mollering (2006) describes 'taken-for-grantedness' as inherently linked to trust, and that trust is taken-for-granted since 'it may be literally unthinkable to act otherwise' (Zucker 1986, p. 58) in the particular yet familiar situations people find themselves in.

Gilbert (1988) provides two examples of conventions which might occur in a more ordinary setting: 'There's a convention in this department that we dress formally for department meetings', and 'In this country there is a convention that you may use a person's name immediately after being introduced' (1988, p. 316). Neither example includes the same fateful connotations or consequences as running a red light, yet coercion remains evident. Attending a department meeting in one's pyjamas would likely cause a range of reprimanding social responses, and those responses might differ depending on one's own position of authority within the organisational hierarchy, such as odd looks from subordinates, to verbal reprimands or sanctions from superiors. Referring to a person continually by their formal title in subversion of the convention of using first names may be considered rude, and thus individuals are coerced to follow the convention in order to avoid the constraining power of others.

If conventions hold coercive properties, then identification of social conventions which are productive to bushfire risk mitigation may be valuable for community risk managers. Observation of instances in which social conventions around bushfire risk have been defied may also be valuable, as these may imaginably contribute toward URI residential anxieties surrounding bushfire risk.

### **3.5.2: The problem of conventions in a risk-context**

Conventions permeate almost every aspect of social life, from the intimate to the institutional. Gilbert (1988) states:

Evidently social conventions do not only apply to situations involving people's 'social life' in a narrow sense, to situations such as dinner parties. Social conventions can relate to behaviour in public places, to behaviour at work, at school, in the marketplace; to the behaviour of scholars and scientists, writers, artists and politicians. They may also reach into the heart of a person's private life. There can be conventions about when and on what and for how long and with whom one sleeps, about the degree to which one's home is to be kept tidy, about the appearance of both the front parlour and the back bedroom. In short, there can be conventions relating to practically every activity a person can engage in, and to all aspects of action — to manner, time, location and so on (1988, p. 316).

The structure of conventions also applies to how risks are managed. Chapter 2 emphasised risks as social constructions, existing through mutual understandings and agreements about what constitutes a hazard, and the degree to which that hazard might impart negative effects. Accepting that certain hazards are undesirable, and that avoiding or mitigating these hazards is desirable, then it stands to reason that conventions on the appropriate behaviours toward risks would materialise which would contribute to avoiding or mitigating risks. In Australia, it is conventional for drivers to travel on the left-hand side of the road; not simply because it is

mandated by law, but because it makes sense to drivers as an effective means to reduce their own and other's susceptibility to road hazards. It is generally not fear of punishment which discourages drivers from driving on the opposite side of the road, but that driving on the opposite side of the road would increase the likelihood of encountering road hazards, while driving on the left-side of the road would reduce them. If the law mandates that driving on the left-hand side of the road is required, but a driver encountered a scenario in which all other drivers were instead utilising the right-hand side of the road, then the driver would likely to adhere to this convention over the prescribed law. It is unlikely that the desire to adhere to a law would compel a driver to travel into oncoming traffic.

While in this case the convention would mitigate susceptibility to the hazard, it is conceivable to imagine conventions that increase susceptibility to a hazard. Harries (2008) illustrated how visual conformity of homes to an idealised norm was important to householders. Discussing a neighbour who had installed flood-mitigation measures, participants responded with derision and laughter, comparing the fortified house to a submarine. The protective measures, which made the home look 'unusual' (2008, p. 483), provoked discomfort from Harries' participants. The fortifications were unusual, in so far as a home would 'usually' have homely and comforting aesthetic characteristics which the fortifications instead detracted from, and thus the decision to fortify the home (at least in the aesthetic manner in which it was fortified) defied convention. Thus, the convention may be to *not* fortify the home, and so susceptibility to hazard increases, while the coercive responses (derision, laughter) may reinforce the convention and suppress alternate discourses.

Recognition of the conventions of a particular social group is an important part of understanding an individual's sense of ontological security but is also important for understanding 'acceptable' responses to risk. Conventions may exist which promote effective risk mitigation behaviours, and conventions may exist which impede the ability to prepare for

risks. An individual may wish to prepare for risks and may even have ideas about how to do so, but if such ideas are 'unconventional' or do not cohere with the convention of the group, then individuals may be discouraged from pursuing mitigation strategies. There may be an inability to come to a conventional understanding; one party may undertake behaviours which contribute to safety, but if the other party does not undertake those same behaviours, or acts counter to them, then their inability to coordinate could result in a problem which adversely affects both parties.

### **3.5.3: Conventions and environmental signals**

As conventions are solutions to coordination problems (Lewis 1969), their emergence and direction are unavoidably affected by the perception of environmental signals, and the environment plays a key role in the development and emergence of conventions. It is conventional to wear pyjamas to bed, but not to a board-room meeting. Skateboarding makes sense at a skate park, but not in a cafe. Drinking and dancing are acceptable and encouraged at nightclubs, but unacceptable at libraries. Actions which are conventional in one environment become unconventional in others.

Brown (1995) gives the example of an environmental influence on conventional speed limits:

On the Long Island Expressway in New York, which I used to travel frequently, virtually no one observes the posted speed limit of 55 miles per hour. 'I've clocked funeral processions at over 70,' said one highway patrol officer. The same officer admitted that no one is ticketed for going 60 miles per hour when the traffic flow averages 65 miles per hour. Of course, the conventional limit is influenced by visible law enforcement, just as law enforcement is influenced by the speed that most drivers consider suitable for any particular stretch of highway (1995, p. 33).

Within this environment, a number of signals contributed to the development of convention. Initially, the convention of exceeding the speed limit seems to have emerged as a result of drivers observing cues from other drivers; watching what others were doing and adjusting speed accordingly in order to keep up and 'stay with the pack' (1995, p. 33). The primary signal source for the convention of the appropriate speed to travel was other drivers.

The posted speed limit, a feature of the environment, emitted a signal that was ineffective at producing the 'desired' convention, which was to travel at 55 miles per hour. Here, the coercive power of convention is most apparent; despite performing the 'correct' behaviour, a driver travelling at the prescribed speed limit and no higher is conspicuous, in so far as they are performing a behaviour aberrant to the behaviour of the other drivers and is thus 'unconventional'.

The new conventional limit (which is in excess of the posted limit) was further influenced by the presence of visible law enforcement. While a driver might exceed the speed limit in a setting devoid of police presence (particularly if all other drivers are doing so as well), evidence suggests that the perception of a law enforcement presence has a slowing effect on traffic (Kaplan, JL et al. 2000; Ravani & Wang 2018). Kaplan et al (2000) describe the effect of an unmanned but marked police car placed alongside a roadway. During baseline surveillance, 72% of motorists were detected exceeding the speed limit, which fell to 27.2% once the decoy vehicle was deployed. The effectiveness of the vehicle waned over a period of ten days, during which time the percentage of motorists exceeding the speed limit rose to 47.4%. Upon removal of the decoy car, the percentage of speeding motorists rose to 67.5%. The rise in speeding motorists over the ten-day period can be explained through a convention paradigm; as drivers acclimated to the presence of the police car, its significance as an environmental factor in the establishment of a convention waned.

### **3.5.4: Defiance of convention and ontological insecurity**

Despite their coercive nature, conventions are often disrupted, subverted and defied. Brown (1995) identifies a range of situations in which the interests of individuals do not align (either with each other, or with social norms or expectations generally), and divides these into four classes: a preference to be free of social problems (exit); a preference to have government solve problems (delegation); a preference to put individual interest ahead of social interest (private gain); and a preference to not be put at a personal disadvantage (parity). In these cases, individuals expect a convention to be returned, and experience ontological insecurity when it is not.

Conventions assist in the experience of the world in a predictable fashion. It is unconventional to have a stranger slam a door in one's face, and so when a stranger holds a door open, it is predictable (at least on the basis of convention) that the door will not be slammed. Thus, an individual can place their self in a position of vulnerability to others and is protected by their sense of ontological security from the uncertainty of the situation. When conventions are defied, however, ontological insecurity follows. Given that conventions involve 'vesting confidence in persons or abstract systems' (Giddens 1991, p. 244), as well as 'bracketing ignorance and lack of information' (1991, p. 245), the defiance or subversion of convention draws attention to the fragility of ontological security, and thus results in ontological insecurity. Mitzen (2006b) describes the distinctions as such:

Ontological insecurity refers to the deep, incapacitating state of not knowing which dangers to confront and which to ignore, i.e. how to get by in the world. When there is ontological insecurity, the individual's energy is consumed meeting immediate needs. She cannot relate ends systematically to means in the present, much less plan ahead. In short, she cannot realise a sense of agency. Ontological security, in contrast, is the condition that obtains when an individual has confident expectations, even if probabilistic, about the means– ends

relationships that govern her social life. Armed with ontological security, the individual will know how to act and therefore how to be herself (2006b, p. 345).

When an individual performs an action for which a degree of trust in others is required, conventional expectations are present (that is, that another will act in accordance with the expectation). Should the other, for whatever reason, choose not to coordinate and return the convention, then the trust of the individual has been misplaced, and that individual becomes susceptible to dangers which can no longer be ignored or bracketed away by the practical consciousness.

### **3.6: Justification of the theoretical framework**

The theoretical framework was chosen as an appropriate tool for exploration due in large part to the nature of late-modern risk. As discussed in Chapter 2, intersections between bushfire risks and late modernity include individualisation of choices, uneven distributions of risk, complex technological problems and solutions, reflexive constructions and re-constructions of knowledge, and mechanisms such as insurance which present questions of responsibility and governance.

In this chapter, the concept of ontological security and what it means for everyday life was examined, as it is a useful tool for analysing residential attitudes towards the thought of fire danger. Using the theory of ontological security, descriptions of how residents in bushfire-risk areas construct systems of meaning build a moving world of normalcy that makes certain behaviours and actions appropriate within the parameters of their day-to-day lives, whilst at the same time making other behaviours and attitudes inappropriate is possible.

As ontological security is fundamental to a sense of self-identity, it critically influences the mechanisms of risk perception, analysis and action, with theorists only relatively recently



seeking to connect the theory of ontological security with disaster risk-mitigation research. I have primarily drawn upon Harries' (2008) examination of ontological security structures in flood-risk residents in the United Kingdom as a pioneering step in the direction of advancing ontological security theory. Harries (2008) study demonstrates a critical point for disaster preparation: that individuals can prioritise more realistic threats to their sense of ontological security over more hypothetical threats to their physical security. Preparing for a natural disaster challenged socially constructed representations of the home, nature and society, and in doing so, a process which may seem straightforwardly rational (fortifying one's home against flood risk) was instead viewed as something to be avoided. Harries suggests that the mental suppression of risk awareness can therefore be seen as instrumentally rational, as it protects a sense of ontological security, and thus, protects mental health. In his closing statements, Harries highlights the importance of emotion as a factor in risk perception processes, and makes the following call to further research:

Although risk researchers have become increasingly aware of the significance of emotions, more needs to be done to understand how emotional considerations influence responses to natural hazards. As emotions are primary to rational thought and do not necessarily enter consciousness, this implies the need for a methodological shift towards research methods that look beneath the superficial meanings of what people say and explore the representations and discourses that shape their speech and actions (2008, p. 488).

In respect and recognition of the central role representations play throughout risk perception and appraisal, ontological security theory was a natural fit for the direction of this study. Ontological security theory emphasises the importance of emotions in maintaining mental health and stability in social reality, overlapping with the idea of 'risk as feeling' (Loewenstein et al. 2001; Slovic et al. 2004), and proves to be illuminating in the investigation of complex human populations that are a product of late modernity.

## **Chapter 4: Method and Methodology**

### **4.1 Introduction and research questions**

This chapter outlines and justifies the research methodology and method used in this study. In the first section, an overview of the paradigm, methodology and method of data collection for is presented. In the second section, the recruitment and sampling strategies are described, as well as a description and chronicle of the interview process. In the third section, descriptions of the data analysis process are offered.

### **4.2: Description and justification for the research approach**

In this section, justifications for the approaches taken toward the research are provided. These are separated into justifications for the research paradigm, methodology, method and sources used to capture and analyse the data.

#### **4.2.1: Paradigm**

A research paradigm is ‘a set of assumptions and perceptual orientations shared by members of a research community’ (Donmoyer 2008, p. 1). This study uses an interpretivist paradigm, which is a framework that is invested in understanding social reality (Bhattacharya 2008, p. 2) It concentrates ‘on social agency, and is concerned with the way we, as social beings, interrelate and interact in society’ (Walter 2006, p. 17). Schwartz-Shea & Yanow (2011) describe meaning-making as key to interpretive research, stating ‘its very purpose is to understand how specific human beings in particular times and locales make sense of their worlds’ (2011, p. 10). As the purpose of this study was to explore URI (urban-rural interface) residents’ perspectives of bushfire risk and examine their ontological security structures, an interpretivist paradigm is a suitable choice of research paradigm. *Perspectives* was chosen as

an encompassing term, referring to thoughts, feelings, views, or perceptions surrounding bushfire risk.

#### **4.2.2: Methodology**

The research uses qualitative methodology to investigate the research problem and determine answers to the research questions. Qualitative research is the systematic inquiry into social phenomena in natural settings (Teherani et al. 2015) such as the subjective experiences of a specific individual or group (Flick 2014). Qualitative research is justified as an appropriate research methodology when seeking to elicit subjective understandings and interpretations, as well as exploring why policy and local knowledge and practice are at odds (Lincoln & Guba 1985; Marshall 1985; Marshall & Rossman 2014). Qualitative methodology is useful for research that is ‘exploratory or descriptive, stressing the importance of context, setting, and participants’ frames of reference’ (Marshall & Rossman 2014, p. 54). Since the purpose of this study was to explore URI residents’ perspectives of bushfire risk and examine their ontological security structures, qualitative methodology is an appropriate choice of research methodology.

The study used conventional content analysis of interview data as the primary methodology. Conventional content analysis is appropriate when existing theory or research literature on a phenomenon is limited (Hsieh & Shannon 2005, p. 1279), and differs from directed content analysis in that researchers avoid using pre-conceived categories, instead allowing the categories and names for categories to flow from the data (Kondracki, Wellman & Amundson 2002). Inductive category formation is used to develop categories gradually from research material; there is generally a system of categories at the centre of the analysis, however this is revised over the course of analysis to ensure flexible adaptation to the material (Mayring 2004).

In addition to content analysis of interview data, a range of secondary sources such as maps, policy documents, reports and scholarly sources were also studied. These sources were useful for contextualising interview data, ascertaining DBPA boundaries and comparing perspectives of official bodies with those of research participants.

### **4.2.3: Method and sources**

*Methods* are not coterminous with *methodology*. Methodology is ‘an articulated, theoretically informed approach to the production of data’ (Ellen 1984, p. 9) which cannot be reduced to a single unit or technique (Moccia 1988), while methods refer to the ways in which researchers collect data to build their argument (Schensul 2008, p. 1).

The research uses interview method with URI residents located within DBPAs as a method to collect data for analysis. Interviews take place in conversation (Kvale 1996), with the emphasis on researchers asking questions and listening, and respondents answering (Warren 2002; Rubin & Rubin 2011). The purpose of most qualitative interviews is to derive interpretations, not facts or laws, from respondent talk (Warren 2002), and is a valuable data collection tool in qualitative research (Kvale 1996; Walter 2006; Punch 2013). Patton (1990, pp. 278-9) describes the purpose of interviewing as being ‘to find out what is in and on someone else’s mind, and that it is the task for the interviewer to make it possible for the person being interviewed to bring the interviewer into his or her world’.

Interviews were semi-structured to allow participants the freedom to explore the themes and topics of bushfire and URI living. On the topic of semi-structured interviews, Galletta (2013) writes:

The semi-structured interview, valued for its accommodation to a range of research goals, typically reflects variation in its use of questions, prompts and accompanying told and resources to draw the participant more fully into the topic under study. Semi-structured interviews incorporate both open-ended and more theoretically driven questions, eliciting data

grounded in the experience of the participant as well as data guided by existing constructs in the particular discipline within which one is conducting research. (2013, p. 45)

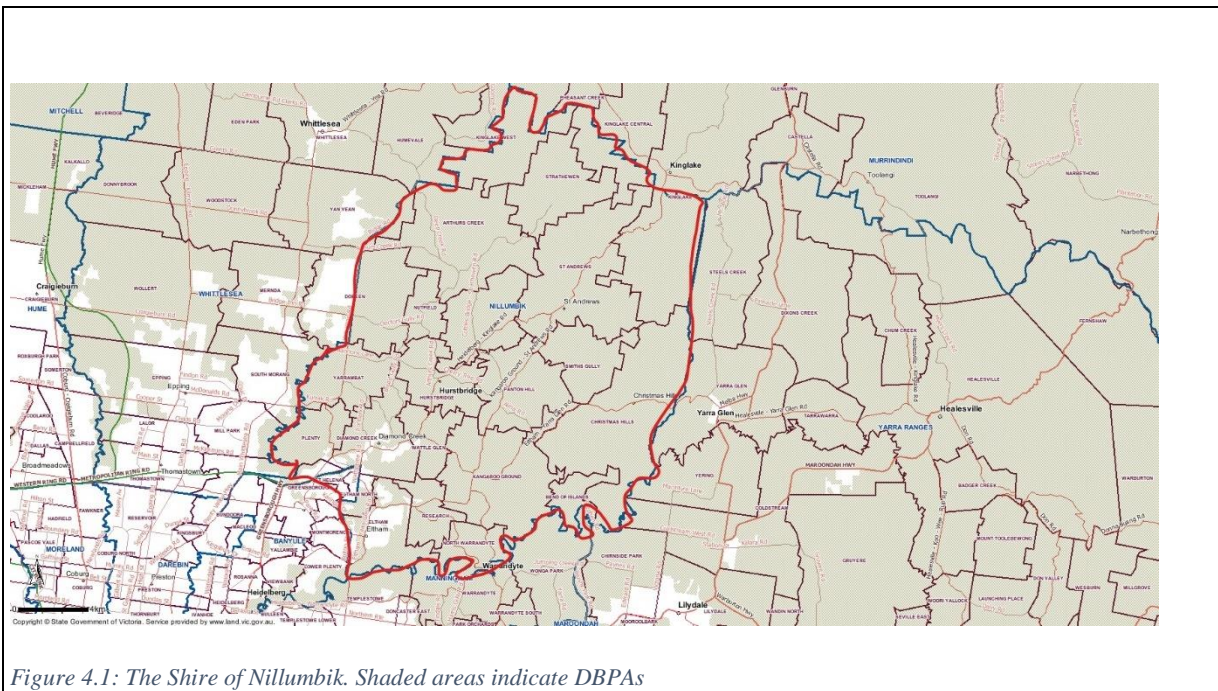
Thirty interviews were conducted with thirty-one residents of URI locations around Melbourne and Bendigo, Victoria. Mason (2010) identifies 30 as the ideal sample size to achieve data saturation in qualitative interviews based on his meta-analysis of 560 post-graduate studies, while other studies support a similar number depending on research scope, characteristics of target audience and available resources (Warren 2002; Curry, Nembhard & Bradley 2009).

The interviews were audio recorded and transcribed by myself. Transcribing enables researchers to revisit the conversation, use multiple analytic angles to discover different aspects of meaning, and share parts of the conversation with larger audiences (Skukauskaitė 2014, p. 4). Further, Shelton & Flint (2018) argue that the act of transcribing allows researchers substantial opportunities for reflexivity, and rather than being viewed as a laborious (and often outsourced) task, should be viewed as an integral part of the research process. In order to transcribe the interviews, I listened to the audio recordings through headphones using VLC Media Player, a free and open-source media player software. The recordings were played at between 0.5 and 0.7 of their regular speed, so that they could be transcribed at the speed at which I could effectively type, and many passages were often repeated to ensure accuracy. A by-product of slowing the recordings meant occasionally certain passages of conversation were difficult to understand. In these instances, passages were played at their normal speed (whereupon the audio was decipherable) and listened to multiple times until they had been accurately transcribed.

### **4.3: Sampling strategies**

A number of sampling strategies were used in the acquisition of potential participants. Purposive sampling was used as the primary research technique. A purposive sample, also referred to as a judgemental or expert sample, is a type of non-probability sample, where subjective methods are used to decide which elements should be included in the sample (Battaglia 2008). Purposive sampling strategies do not seek generalisation or randomness, but are useful for specific cases where chances of observing the phenomena of interest can occur (Serra, Psarra & O'Brien 2018). In this case, potential participants were required to be currently residing in URI areas, which were also located within DBPAs.

A number of avenues were investigated for participant recruitment. Initially, I had intended to recruit participants in person through door-knocking, from areas within the Shire of Nillumbik selected as meeting the URI and DBPA criteria (*Figure 4.1*). Davies (2011, p. 289) argues that door-knocking can ‘enrich and thicken research that usually takes place behind closed doors’, and was imagined to be a suitable method of participant recruitment.



*Figure 4.1: The Shire of Nillumbik. Shaded areas indicate DBPAs*

After several excursions into the selected research sites, this method felt inappropriate for the research sites. Many households were signed with DO NOT KNOCK stickers, which under Victorian law prevent salespeople from soliciting on doorsteps. For these households, the underlying message of disinterest in solicitation was heeded and these households were not approached for participation. For those who did answer their doors, I was generally met with suspicion or disinterest. Hazel & Clark (2013) describe door-knocking as an interaction between researcher and potential participants in which power relationships are established and respective roles are entangled with recruitment strategies. Tactics to gain the attention of potential participants, introduce oneself and one's research to participants, and negotiate participation in research projects exist on a spectrum in which control of the situation can be emphasised as researcher-controlled or participant-controlled (2013, p. 315). Reflecting on the process, different variations of approach tactics (varying between researcher-controlled emphasis and participant-controlled emphasis) may have yielded greater participant recruitment from door-knocking. Some residents spoke briefly with me and accepted a Participant Information Statement, but no call-backs were received from this method of participant recruitment.

In an effort to reach potential research participants, I contacted the Nillumbik Shire Council, which governs several suburbs in Melbourne's north identified as potential research sites. An initial email inquiry to Nillumbik Shire Council in August 2016 received no response. Following a second email inquiry in October 2016, a response was received, whereupon I enquired as to whether the Council would be able to host a link to the research project on their community Facebook page (which has a reach of roughly 4000 people, most of whom were imagined to be residents of the Shire). Competition for advertisement on the Shire's Facebook page was high, however, and I was informed that such hosting would be unlikely. Roberts (2014) notes that using social media as a means to recruit participants can be valuable as a

representative sample of the population of interest, however may be limited to those individuals who have access to the necessary equipment for social networking, as well as the required computer skills and aptitude. This can result in potential under-representation of those who are financially limited, as well as some ethnic or racial groups, less educated individuals and the elderly (2014, p. 3).

Following my initial unsuccessful attempts at participant recruitment, methods of convenience sampling and snowball sampling (a type of convenience sampling) were employed. Convenience sampling is 'a type of non-probability or non-random sampling where members of a target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or willingness to participate are included for the purpose of the study' (Etikan, Musa & Alkassim 2016, p. 2), while snowball sampling 'identifies cases of interest from people who know people' (Marshall & Rossman 2014, p. 71), and is valuable in situations where populations may be hidden or hard to reach for an outside researcher (Cohen & Arieli 2011). Convenience samples have been criticised for saving time, money and effort at the expense of information and credibility (Marshall & Rossman 2014, p. 71), while snowball samples depend on the referrals of the respondents first accessed, thus potentially biasing results (Kaplan, CD, Korf & Sterk 1987). The study still retained the requisite purposive sampling criteria (in that participants needed to reside in URI areas and DBPAs), however the boundaries of the sample were extended, and as such participants were located across multiple URI areas.

Convenience sampling was used through Facebook advertisement. During August 2016, I advertised for the study through my Facebook network, asking friends and family to share a post in their own networks that asked for expressions of interest from residents who lived within one of several suburbs listed who may be interested in participating (*Figure 4.2*). Using this method was an efficient means to rapidly access potential research participants and



ascertain their suitability for participation in the study under the URI-DBPA conditions of the study. Ultimately, this method yielded six (6) participants for interview; four (4) from the Facebook post, and then an additional two (2) through the networks of the recruited participants.

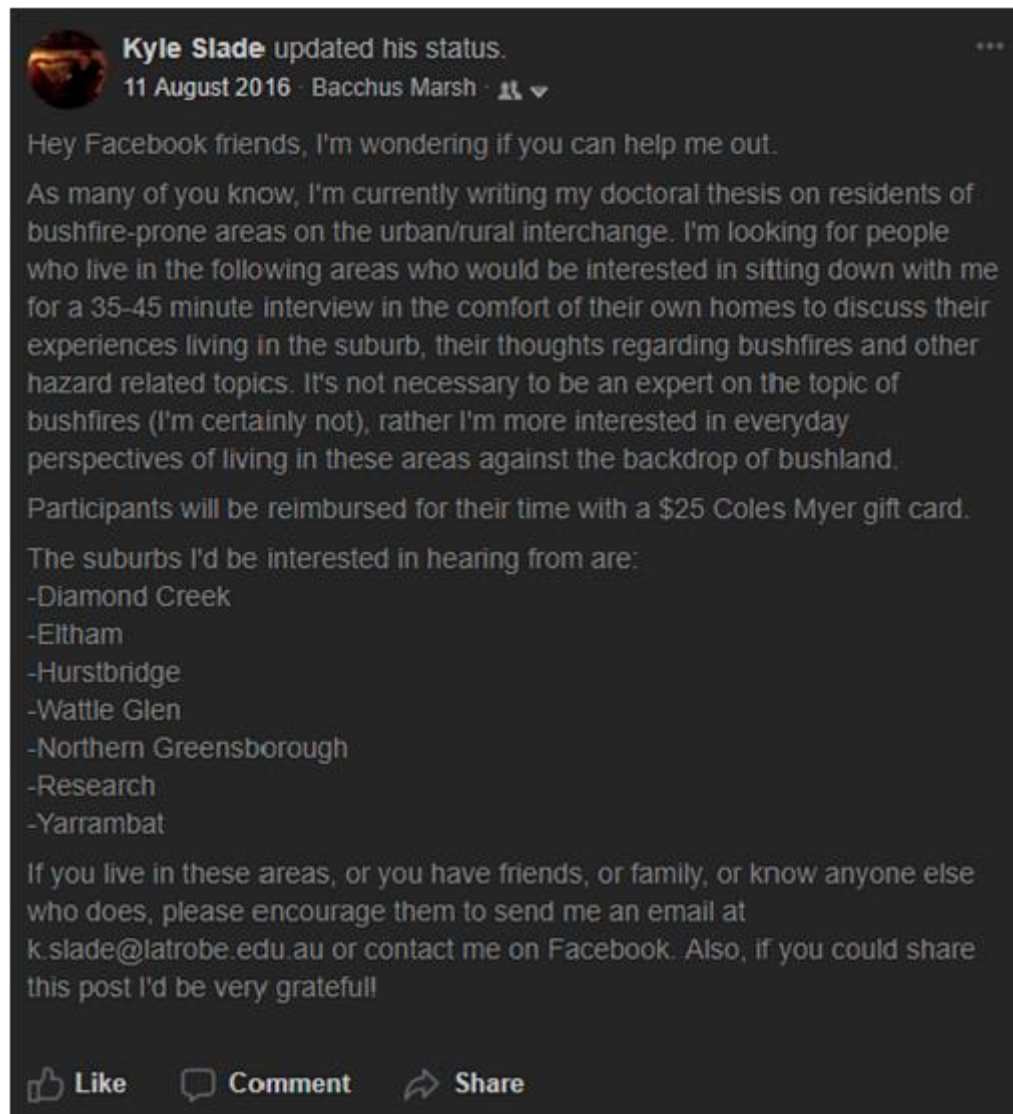


Figure 4.2: A Facebook post used to reach potential research participants

Snowball sampling was used following my relocation to the city of Bendigo (north of Melbourne) in 2016. Fortuitously, Bendigo is itself a URI area, surrounded and penetrated by DBPAs (Figure 4.3), and was a location where participants met the purposive sampling

conditions. I approached several members of staff at the La Trobe University Bendigo Campus for assistance and was able to develop a network of interview participants through their own contacts. A final tally of 25 Bendigo residents and 6 Melbourne residents was achieved.

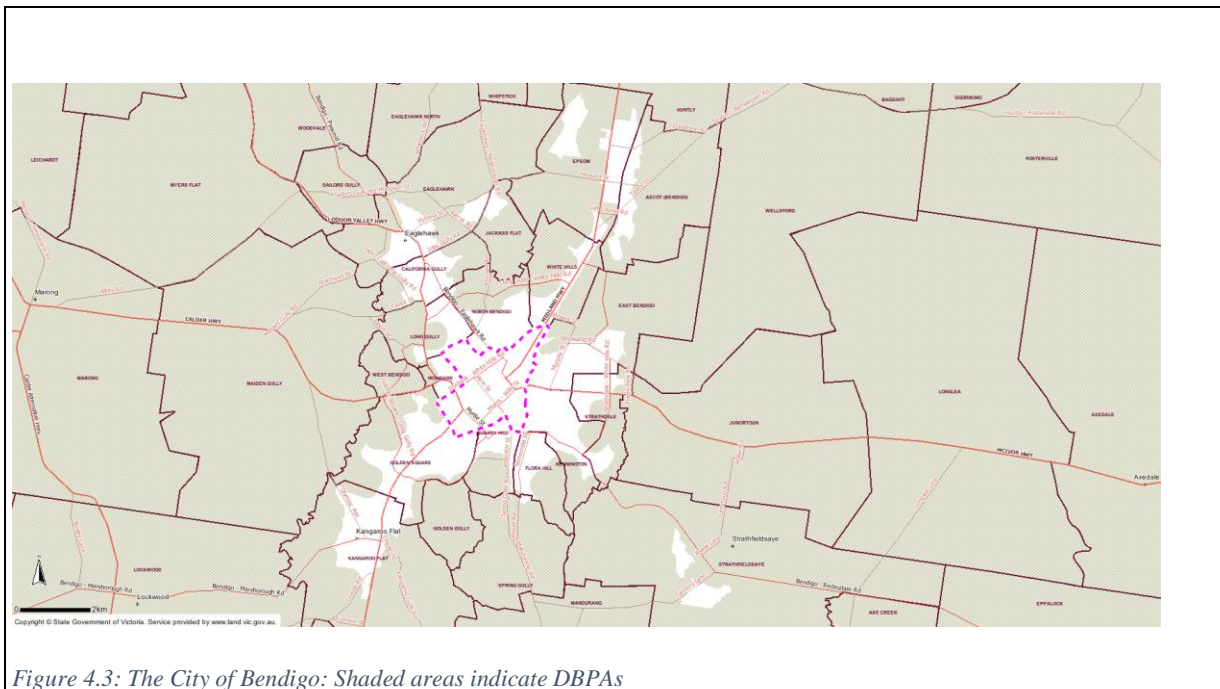


Figure 4.3: The City of Bendigo: Shaded areas indicate DBPAs

### 4.3.1: Participant profile

Participants held a diverse range of occupations, including students, lecturers, chefs, nurses, businesspeople, researchers, mechanics, administrators, stay-at-home parents and wait-staff. The youngest participant was 20 years old, whilst the eldest was 68, with a mean age of 39.4 years. Some participants were new to the areas, having resided in their area for less than 9 months, whilst others had lived in their areas for over 60 years. All participants have been identified with pseudonyms and lived within DBPAs in or around URI areas in north-west Melbourne and Bendigo (Table 4.1).

Table 4.1: Table of Research Participants

#	Name	Age	Location
1	Adam	47	Flora Hill (Bendigo)
2	Alan	62	Epsom (Bendigo)
3	Alison	24	Kennington (Bendigo)
4	Anna	30	Strathdale (Bendigo)
5	Benjamin	20	Diamond Creek (Nillumbik)
6	Bianca	41	Strathdale (Bendigo)
7	Britney	23	Kennington (Bendigo)
8	Chelsea	62	Jackass Flat (Bendigo)
9	Craig	20	Kennington (Bendigo)
10	Dana	44	Marong (Bendigo)
11	Denna	20	Flora Hill (Bendigo)
12	Emily	50	Strathfieldsaye (Bendigo)
13	Grace	30	Research (Nillumbik)
14	Greg	68	Kangaroo Flat (Bendigo)
15	Gwen	46	East Bendigo (Bendigo)
16	Hal	42	Eaglehawk (Bendigo)
17	Helen	62	Kangaroo Flat (Bendigo)
18	Jackson	57	Flora Hill (Bendigo)
19	Jonathon	25	Research/Greensborough (Nillumbik)
20	Kara	62	Kangaroo Flat (Bendigo)
21	Kevin	26	White Hills (Bendigo)
22	Megan	22	Research (Nillumbik)
23	Natalie	41	Eaglehawk (Bendigo)
24	Peter	30	Research (Nillumbik)
25	Rebecca	33	Flora Hill (Bendigo)
26	Rick	48	Eaglehawk (Bendigo)
27	Rowan	22	Flora Hill (Bendigo)
28	Shannon	44	Spring Gully (Bendigo)
29	Sheree	54	Huntly (Bendigo)
30	Trent	27	Diamond Creek (Nillumbik)
31	Tristain	28	Harcourt (Bendigo)

Participants were compensated for their time with a \$25 Coles Myer Gift Voucher. Funding for the vouchers was provided by the La Trobe University *Internal Revenue Grant Scheme*, a program that provides funding to post-graduate students for fieldwork, conferences and other research related expenses. Wiles (2012) suggests that rewards and payments in the form of gift vouchers might arguably be viewed as an undue inducement, but ultimately states that payment or benefit for participation in a research study should be thought of as a ‘thank you’ for participation, rather than an incentive. All participants in the study were given a voucher at the conclusion of their interview. The La Trobe University Human Ethics

Committee were appraised of the use of gift vouchers as an incentive in the study and granted approval to the study's ethics application (Ethics Approval Number: HEC16-018), and funding for the vouchers was secured with this approval as a supporting document.

#### 4.3.2: The interviews

Interviews took place over a seven-month period, with each interview being conducted on average over 20 to 30 minutes (with outliers at both ends) in the homes and places of work of participants, as well as at the La Trobe University Bundoora and Bendigo campuses. The first interview was carried out in September 2016, and the last in March 2017.

The interviews followed a set of 19 discussion topics. *Appendix A* demonstrates the types of questions asked to participants, however these questions served as a guide for conducting the interview rather than a way to exactly phrase questions. For instance, the question '*What's normal life like for you?*' as written in the interview guide was often posed instead as '*I'd like to know what a typical day or week might be for you*' or '*So what's normal life like for you? What's a week for you?*'.

Within the interviews, Galletta's (2013) orienting tasks were used. Galletta (2013, p. 77) explains that semi-structured interviews rely on two orienting tasks: listening closely to participants for points in need of clarification and further generation of meaning, and locating and placing on hold points in the interview to which you may return later for elaboration or on which you may invite the participant to critically reflect. In an interview with Jonathon, clarification for generation of meaning resembled the following:

**Interviewer:** It sounds like you know where to access information about fire safety, you mentioned the ABC warnings, and now the fire app. Could you tell me a bit more about that application actually?

**Jonathon:** Um, so it's basically just the CFA app. You can download it off iTunes or the Android Google store. It gives you the option of putting in your address, or GPS coordinates

and um...you can set a radius to um, a kind of radius to what kind of updates you want, a certain radius. It'll sort of give you everything, from bushfires, to you know, like, a toxic fire at a factory or a car fire, so it's a very handy little app, and um, whilst we weren't under threat the last couple of years, it was still valuable to have on your phone.

**Interview:** Sure, I guess, as like, a peace of mind...?

**Jonathon:** Yeah, exactly. So even when I was at work, I was getting updates and checking on it, and communicating with Mum about those notifications as well.

In the excerpt, Jonathon mentioned the use of the CFA FireReady application technology as a means to interact with and assess bushfire risks. Recognising this as an opportunity for Jonathon to explain the technology and its value to him in his own words, I asked him to tell me about the application. Jonathon explained to me how he operated the application, describing it as 'handy' and 'valuable to have on your phone' despite the fact that he had not been under threat in the last couple of years. Moving with the feel of the conversation, I posed to Jonathon that its value may have been in the sense of security it offered ('peace of mind')<sup>9</sup>, which he confirmed, explaining how it brought him a sense of security and allowed him to coordinate information with his mother, even as he was away from the home.

Similarly, returning to discussion points for elaboration and critical reflection yielded important information, as illustrated by the conversation with Tristain:

**Interviewer:** So, broadly speaking, how much would you say you know about bushfires?

**Tristain:** A fair bit? Interestingly enough, back when Black Saturday happened, I had a partner who lived in Kilmore, and was there in town for Kilmore during Black Saturday. So, I think I sort of went 'oh shit, we've got to pay more attention to this'. But yeah, certainly wouldn't necessarily say we've got a plan of anything like that, or you know, written down or

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<sup>9</sup> In hindsight, it would have been more appropriate to ask Jonathon why it was valuable for him to have the app on his phone even when he was not under threat of bushfire and have him explain and clarify its value in his own terms.

anything like that. But certainly, something that we do, you know, have a fairly brief discussion about.

Here, Tristain mentioned that he was cognisant of bushfire risks, and although he had no formalised fire-plan, it was discussed between himself and his partner. This allowed for a later return to the topic of a fire planning and defences, where Tristain explained his position further:

**Interviewer:** So, you mentioned you don't have a fire-plan, do you have sort of, defences or water-tanks or anything like that?

**Tristain:** No, look, in time we're looking to get water tanks, but I think our very basic plan is; get the hell out ASAP

**Interviewer:** Sure. It's a good plan.

**Tristain:** [laughs] Absolutely. An um, yeah, mainly because, look, neither of us are the sort of people that, you know, want to take that risk, especially now with a child, it's just...we've got family in Bright, and family in Shepparton and that's either.... either of those two, Shepparton's probably a bit safer. We're in a street too that's got a fair bit of place to exit. It's not...at the end of a long dirt road or anything like that.

Returning to the point of fire-planning and home defensibility allowed Tristain to critically reflect on the reasoning behind his choices of addressing bushfire risk, whereupon he described himself and his partner as not being 'the sort of people' who 'want to take that risk', further compounded by their responsibilities towards their child, their available options for safe refuge, and the availability of evacuation paths from their street. Thus, a circular interviewing technique was utilised, allowing participants time to reflect upon the themes of the interview<sup>10</sup>

The choice of interview location is not just a technical matter of convenience and comfort, but should also be examined with the social context of the study being conducted

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<sup>10</sup> See Section 8.5: *Limitations* for reflection on challenges experienced during this approach.

(Herzog 2005, p. 25). Where possible, the homes of participants were selected as being the ideal choice of venue for the study, allowing participation in the research to be more accessible to participants, as I could work around participant schedules and minimise disruption or inconvenience. Additionally, the home is a focal point for the subject matter of the research (being a study of *living* in a bushfire-prone area), making the home a particular site of relevance and thus conveying a message about what the interaction itself was about (Schwalbe & Wolkomir 2003). Interviewing participants about their thoughts regarding bushfire dangers to the home was beneficial if the interview could take place in the home itself, perhaps allowing participants to connect more deeply with the themes of safety and security versus challenge and risk. Where interviewing in the home was not possible or convenient for participants, interviews took place at La Trobe University Bundoora and Bendigo campuses instead.

All interviews were conducted between the interviewer and a single participant, with the exception of one interview, which instead took place between a couple living in the same house, and thus became closer to a group interview. Bjornholt & Farstad (2012) describe several advantages of interviewing couples together; interviewing couples can produce rich data in which couples occupy a common reflective space. A common objection of couples interviews is that a couple will inevitably strive towards presenting the same consistent story however Bjornholt & Farstad (2012) explain that disagreements can be discovered and exposed, providing a researcher with interesting data. Careful consideration was paid to this interview instance to ensure that the main objective of the interview was preserved.

#### **4.4: Data analysis**

Qualitative data analysis is 'the classification and interpretation of linguistic (or visual) material to make statements about implicit and explicit dimensions and structures of meaning-making in the material and what is represented in it' (Flick 2014, p. 5). In qualitative data

analysis, salient themes, recurring ideas or language, and patterns of belief that link people and settings together (Marshall & Rossman 2014, p. 158) are identified. Following transcription of the interviews, the text files were imported into NVivo Plus, a qualitative data analysis software package. Each transcript was re-read, and relevant sections of text were coded for meaning with relation to the above selection of initial themes imagined to be relevant to the research questions. Codes are a formal representation of analytic thinking (2014, p. 160), and are used in qualitative data analysis as a means to identify themes in a text (Bernard & Ryan 2010).

Bazely & Jackson (2013) suggest beginning with general categories before coding in more detail as a common approach to qualitative analysis. Initial themes emerging from the data were:

- Observation or interaction with bushfire risks;
- Descriptions of susceptibility to bushfire hazards;
- Descriptions of everyday routines;
- Securities or insecurities around bushfire risks;
- Descriptions of the ways in which participants addressed or mitigated bushfire risks;
- Trust in other actors, and the identity of those actors.

These emergent categories were refined as nuances in participant experiences were explored. As themes emerged, they were organised into emergent categories and grouped into meaningful clusters (Patton 1990; Coffey & Atkinson 1996). Thematic categories were then arranged according to their significance for answering each research question. Categories relevant to perspectives of exposure or vulnerability to bushfire risk in URIs were grouped and are presented in Chapter 5, while categories relevant to the construction and protection of a sense of ontological security were grouped and are presented in Chapters 6 and 7.





# **Chapter 5: Risk Perspectives of Urban-Rural Interface Residents**

## **5.1: Introduction**

The following chapters (Chapters 5, 6 & 7) present the empirical evidence which underpins the core arguments of the thesis. This chapter addresses the first research question of the thesis: *What perspectives do residents of urban-rural interfaces in Designated Bushfire Prone Areas have about their exposure or susceptibility to bushfire risk?* It presents an analysis of interview data related to the perceptions of bushfire risk in the sampled residents of Designated Bushfire Prone Areas (DBPAs) along the urban-rural interface (URI).

My analysis of the data found that participants held varied perspectives and made nuanced judgements of bushfire risk, based on or from various sources of information. These sources may have been located in the physical environment; for instance, through the observation of greenery and bushland which suggested bushfire risks may be present, while observations of structures, non-flammable materials and other suburban imagery suggested that bushfire risks may have been absent. Objects such as brochures, fire danger rating (FDR) boards and television advertisements also provided cues that bushfire risks may be present in the environment, with participants forming and using a complex framework of risk appraisal to determine the degree of bushfire risk they felt to be present in their residential environment. Social environments also influenced participants' risk perspectives. Participants revealed a nuanced reading of other actors in their social environments, reflected on the ways in which their peers responded or did not respond to bushfire risks, and held a variety of perspectives on community cohesion and interaction around bushfire risk. Further, local councils and government bodies also had an influence on participant bushfire risk perspectives.

## **5.2: Perspectives of bushfire risk**

Across the sample, participants held various perspectives of the presence bushfire risk around their residential environments.

Although all participants resided in DBPAs, their perspectives, understandings and experiences of bushfire risk was varied. Some participants did not describe bushfire risks as being present and professed having ‘no idea’ about what to do before or during a bushfire. Others suggested that moderate or even more significant bushfire presents may have been near. This latter group acknowledged that careful mitigation strategies could reduce the likelihood that risks would affect them or lessen the severity of their impact. A few participants had been involved in a bushfire situation before, while others had second-hand, anecdotal or theoretical knowledge about bushfires.

As the literature suggested, no single characterisation of a URI resident emerged; participants’ experiences, histories and interactions with their social and material environments were unique.

Within the sample, it appeared that participants observed a number of elements in their material and social environments which prompted evaluations of their surroundings and their potential to encounter bushfire risks. These appeared in both the forms of environmental influences, which amplified or attenuated the perception that bushfire risks were present, or in the form of peer and other-actor influences, wherein peers (such as friends and family) and other actors (such as local councils, neighbours, or even strangers) who could also amplify or attenuate the perception that bushfire risks were present. These elements are discussed in the sections below.

### 5.2.1: The role of environmental cues for amplifying and attenuating perceptions of bushfire risk

Participants did not by default conceive the URI as being an area of bushfire danger and were not necessarily of the view that bushfire risks were present in their environments. If participants indicated that bushfire risks were present, their view was often predicated on appraisals of natural environmental elements.

Participants' conversations described tall grasses, overgrowth, forested areas, visible trees and bushland, and occasionally FDR warning boards as part of their surrounds which may have indicated the presence of fire danger or represented it in some way as part of their surrounds.

However, many participants described their environments as absent or suitably distant of such areas. For residents who described themselves as being less exposed to heavily treed areas, reminders of fire danger were not described as being especially prevalent in the residential environment. Instead of visual reminders of grass, trees and other more imaginably flammable materials, these participants instead described their surroundings as comprised of houses, streets, concrete, and other urban objects. These objects appeared to temper perspectives that bushfire hazards were present in the environment, functioning as a barrier between bushfire hazards and the self.

The following quotations illustrate or reveal participants' thoughts on their safety in relation to their surrounds. Descriptions by study participants of their residential environments often reflected this suburban character over any rural elements, citing the build-up of dwellings and structures as the key features of the landscape.

Kevin experienced a conflict between what he imagined he *ought* to think, and what he actually thought about bushfire risk. Kevin explained that while bushfire risks could be present in his area, he always felt safe, due to his home's 'built-up' suburban qualities:

**Interviewer:** Do you feel like White Hills might be a risky area for a bushfire to happen?

**Kevin:** Probably not. It's pretty built-up, I'd say. I know all I'm saying is wrong, and it might be...there is some bushland around the area, but I know...it's probably a lot more dangerous than I give it credit for, but I always feel safe.

Kevin was reflexive about his assessments of bushfire risk; he could discursively identify bushland, designate it as an area which is 'probably a lot more dangerous' than he gave it credit for, but ultimately always felt safe at home.

Craig's description of his living circumstances in Bendigo and the feeling of safety he experienced surrounded by concrete demonstrates a similar idea:

**Interviewer:** So, do you feel like where you live is a risky area, that a bushfire could happen?

**Craig:** I'd say not really. Like, I mean, there is a vacant block across from the house, but I don't think there's going to be much...unless someone just goes in there and lights it on fire, then we're pretty safe I reckon. And there's just a lot of house, a lot of concrete, a lot of non-flammable stuff around.

**Interviewer:** So, you're quite well insulated from the surrounding bushlands?

**Craig:** Yeah, yeah.

Kevin and Craig both described a sense of protection garnered by large amounts of non-flammable materials such as houses and concrete around his home, however while Kevin grappled with a conflict between his assessments of bushfire risk and his feelings of safety, Craig made the (unconscious) distinction between a natural occurrence of fire and arson, indicating that the former is unlikely.

In each case, the constructed character of their area allowed them to distance themselves from the possibility of danger. Constructions of the environment as being one which was built-up, rather than natural, attenuated feelings that bushfire risks might be present.

Like Craig, Britney referred to purposefully lit fires, but also recognised that fires can start by accident.

**Interviewer:** Do you feel like where you live is a risky area, where a bushfire could happen?

**Britney:** Probably not so much where we are at the moment. Probably more house fires and things like that, because it is quite an old house that we live in. And then also probably the block behind us, because it does get quite overgrown, and gets quite dry in the summer, but it would be more accidental or on-purpose fires in that block of land, or an accidental house fire or something.

**Interviewer:** So, you're not really close enough to any large area of bush that this would be a problem?

**Britney:** No, not overly, no. We're surrounded by houses, mostly.

Megan identified her residence in the suburb of Research as being unlikely to be affected by bushfire. Megan's interpretation of the environment suggested that bushfire risks were unlikely to affect her:

**Interviewer:** I guess, do you feel like it [bushfire] could ever happen around this area?

**Megan:** Probably in Research, yes, but not *this* part of Research, I don't think. I mean, even though we've got the aqueduct track there, it's houses on that side and houses over here, so it's not that much bushland. Our backyard is just grass, not trees or anything, so you could probably contain it if it happened in our backyard. Even our next-door neighbours only have one gumtree, so we're not overgrown bush-wise.

Megan perceived the elements of her environment in a way which did not suggest that the area could be prone to bushfire. Indicators of suburbia were plentiful while potential sources of ignition were. Fire danger, for Megan, was directly correlated with proximity to grass, trees and overgrowth. Since Megan felt that these items were absent from her residence or not within

sufficient proximity to her residence to be of note, there was no definite location around the home where Megan imagined a bushfire could take place that would affect her home. Megan described her suburb of Research as being one which *could* be affected by bushfire, but her immediate environment appeared to lack elements which would suggest that the part of Research she lived in could be in any danger<sup>13</sup>.

Some participants detected nearby concentrated sites of danger, such as forests, and distinguished factors affecting the likelihood of fire such as vegetation density, type, size, area maintenance, proximity to vegetation, connectivity and movement of embers on the vulnerabilities these could present to their homes. Some participants were aware of the dangers of flying embers and the potential for spot fires to occur, though there were no descriptions of other hazards such as smoke or radiant heat:

**Interviewer:** Do you feel like a bushfire could happen around your area?

**Adam:** Yeah. I do. Yeah. Don't want it to, but I think we have to be real. There is always the potential because where I am, I back on to what looked like to me to be council access. Doesn't always get attended to. I think it's been attended to now, I haven't gone and looked but the grass was quite tall up against the rear fence. And there's a state forest, which is that way. So, knowing about embers, if there was a fire there, this part of the world could be facing a bit of an emergency.

Adam's description of the area suggests he had a strong awareness of the fuel and conditions that placed him under probable threat. Similarly, Bianca identified the Junetun forest as a source of fire hazard:

**Interviewer:** Do you feel like a bushfire could happen around your area?

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<sup>13</sup> Megan resided in an estate-type block, which I had noticed on arrival was densely ringed by eucalyptus trees. The block featured only a single access point, which was a two-lane bridge over the aqueduct track Megan described. The combination of large fuel quantities and the single access point could present significant vulnerabilities; if a bushfire were to occur in this location and the bridge road were inaccessible, my personal (and therefore, subjective) assessment is that escape would have been difficult.

**Bianca:** I think I'd be more affected by embers flying forward, than so much being in the middle of it. Because we're not far from state forest, if something came through from Juneton, that sort of...it would blow over us, yes.

Both Adam and Bianca were cognisant of the dangers of fire-spotting, suggesting they could be in the path of flying embers if a bushfire were to occur nearby.

Greg provided a numerical rating of potential bushfire risk, citing the less flammable vegetation of his area versus the more flammable vegetation in Lockwood Road, thus rationalising his view that he was in less danger:

**Interviewer:** Do you feel like it's a risky area, where a bushfire could happen?

**Greg:** Ah...no. No, say on a 1 to 5 basis for risk, probably about a 2, 2 and a half. Yeah, there is a risk there, because there are quite a few trees. Lockwood Road, there are some big gum trees around through there, whereas the sort of trees that we've got, I don't think we're predisposed to that sort of risk. I know up Lockwood Road, they've got huge gum trees and, look up there and you think sometimes...

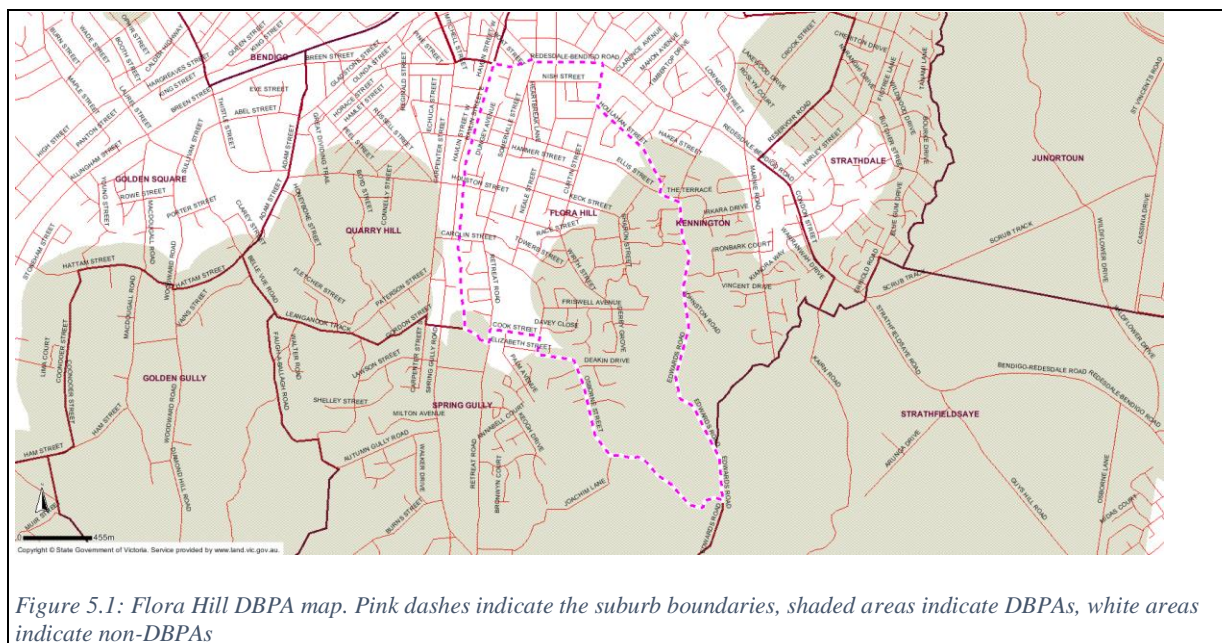
Like Greg, Rowan perceived his current residential environment as an area of less risk than other, more forested areas. Rowan described his area in terms of its inner-suburban character, which he felt to be less risky than outer-suburbs:

**Interviewer:** Would you consider Flora Hill to be a fire-conscious place? Do you reckon people kind of have a feeling for bushfire?

**Rowan:** Flora Hill? Probably not. Maybe the closest one that would be would probably be Mandurang, which is connecting to Flora Hill. Obviously, that moves into the One Tree Hill forest, that's probably...Flora Hill, I'd say no. Just purely because that I think they're more, people in Flora Hill, well, personally I see myself as more of a suburb of an inner Bendigo, rather than external.



Rowan did not feel that bushfire was something which was likely to affect him in his current location, due mostly to being part of 'inner Bendigo'. Connectivity between the different suburbs of Bendigo was also apparent; Rowan could picture how the vegetation of the nearby suburbs flowed as symbolic of how a potential fire would flow. *Figure 5.1* illustrates the DBPA coverage of Flora Hill, the suburb where Rowan lived.



Despite living inside the DBPA, Rowan's feelings of safety may be attributed to his ability to recall other locations and compare their character. In this case, feelings of safety may be attributed to fewer observations of elements in the environment that suggested bushfire risk was present, and a greater presence of more suburban elements which indicated that the area was safe. In addition to connectivity, the key criteria for bushfire danger appeared to be the presence of flammable greenery and densely forested areas, neither of which he perceived (or perceived in any notable quantity) near his current residence. Rowan still observed some indicators of fire risk, speculating that grassfires might be something that could affect his residence:

**Interviewer:** So, do you feel like where you live now [Flora Hill] is a risky area for a bushfire to happen?

**Rowan:** I would say no, probably. Only that I feel it's more...although grassfires maybe...bushfire probably not. Purely that it's not surrounded by bush, so nup.

**Interviewer:** And where you lived in Maiden Gully, more so?

**Rowan:** I definitely would have expected bushfire risk, definitely. Our biggest risk in Maiden Gully would probably have been bushfire.

**Interviewer:** Sure...because of the higher density of...?

**Rowan:** Yeah, of forested areas, yeah.

In contrast to Rowan, Chelsea observed more indicators that bushfire risks may be present around her home, describing her area as 'quite bushy'. Bushfire risk was less abstract and held a more definitive location around her home. This was further reinforced by her recollections and experiences with previous bushfires, which allowed for a more personal connection to bushfire risk, helping transform a possibility into a probability:

**Chelsea:** I remember as a kid, the terrible fires at Macedon, and yeah, you just remember them, but didn't really...because you never thought it was going to happen to you, but I think the realisation that it could, when it come through. And my mum, and my mother-in-law, they actually lived in Ironbark [a suburb of inner Bendigo] at the time of that fire, and they got evacuated, and we brought them over to our place. It's pretty daunting, and you sort of think 'Gosh, this could happen to us.'

**Interviewer:** Do you feel like it's [her home] a risky area, where this could happen?

**Chelsea:** Yeah, I do. Yeah, I do, because we are quite bushy. That's definitely a bit of a scary area.

In an area with both 'bush' and 'urban' characteristics, the boundaries between natural and constructed areas appeared to be blurred. Chelsea's experience with her mother and

mother-in-law's evacuation from Ironbark demonstrated that urban elements were not always a sufficient source of insulation from bushfire risk. Bushfire risk appeared to be amplified by 'bush', but not necessarily attenuated by things which were 'urban'.

This discussion so far has concentrated on the different locational relationships between participants' homes and fuel sources. Sources of ignition (natural, accidental and intended) have been raised as external factors, but not as an intrinsic element of the URI. Yet, powerlines exemplify this issue, and constitutes to perceptions of risk as the following quotation demonstrates:

**Interviewer:** Do you feel like where you live now is a risky area, where bushfires could happen?

**Denna:** If I think about it, yes. Because obviously the power lines are a big concern for me, and just below the power lines there's obviously nobody living directly under them, so there's this strip of just bush. So, I feel like something could happen there, if there was to be an electrical fire. And obviously because I'm the first house that backs on to that, and I've got, you know, bushes and trees and stuff in my backyard, I feel like that could set alight. And obviously my house, being old, it's not equipped, you know? Like how they have fire retardant stuff now? Nup, my house has nothing like that [laughs].

Denna's property shared a border with a large power transmission tower, usually found on the edge of or outside of metropolitan areas, which are used to carry high voltage power lines. The spectre of the power line hanging over her house allowed a definite, concrete location for fire-danger to exist. Denna did not need to conceptualise fire-danger in abstract terms but could instead relate them directly to the overhead lines; fire danger was literally hanging above her head.

### 5.2.2: Community networks

Participants also described instances in which elements of their social environments may have influenced their perspectives surrounding exposure or vulnerability to bushfire risk. Themes such as community networks, community expectations, levels of community integration and cohesion, interactions with local councils, and interactions with expert advice emerged from the data.

Participants held a range of views as to whether bushfire risk was something which could affect them personally. While they agreed that bushfire risks might exist in some capacity (though feelings differed on the levels of personal exposure to those risks), participants did not always describe bushfire risk as a topic which generally emerged in conversations with other people.

In *Section 5.2.1* (above), Craig cited the built-up suburban character of his residential environment as reasoning for why his home did not seem to be at risk from bushfires. Compared to his hometown of Horsham, Craig described his current living circumstances in Bendigo as being removed from the possibility of bushfire, with insulation from the bushland offered by other residences in his neighbourhood. He viewed these as creating a barrier between himself and any potential fires, rather than as a potential conduit for them to travel through.

However, Craig also described what he experienced as comparatively lower levels of community integration and cohesion (compared to his hometown of Horsham). These lower levels of integration and cohesion appeared to make bushfire risk a less visceral experience for Craig, in which lower levels of social contact with people who might be affected by bushfire reduced his own need to reflect on bushfire risks:

**Interviewer:** Do you consider Bendigo to be a fire-conscious place?

**Craig:** Not really. It's a lot more city-ish than Horsham is. It's rural, but it's not quite as rural? It's real...I feel it's a lot more of a city than Horsham, so people would be a lot less...really, it's just something they don't want to have to think about, they don't care about that.

**Interviewer:** Was it like that in Horsham, or was it different?

**Craig:** Kind of, but everyone kind of knew everyone. So, if everyone knew everyone, then you're going to know people who are out in the bush, out on the farms and stuff. So, it's kind of like, it's always on people's minds, whenever it got really hot. And I suppose people started thinking about 'Are these guys going to be alright' Whereas in Bendigo, it's kind of like, keep to yourself kind of thing. I'm not sure, yeah.

**Interviewer:** So, because everyone knows everyone else in Horsham, if people are on the outskirts, and it affects them, then it kind of affects everyone...?

**Craig:** Yeah exactly. There's just more of like a community mateship, like camaraderie sort of reaction, I suppose.

**Interviewer:** And that's not the same case in Bendigo?

**Craig:** Nah. I feel like it's because Bendigo, being a uni [university] town, like a lot of people from everywhere come here. And you make friends and that sort of stuff, but people keep to themselves. It's not as tight-knit of a community, at least in the circles I'm in. I'm sure there are people who...volunteers and stuff, like real community workers that wouldn't feel the same way, but I suppose unless you live out in Strathfield, Eaglehawk, somewhere like that where it's real bushy, I suppose you wouldn't really have to worry about it...

The contrast in the community between what Craig experienced in his hometown of Horsham, and his current residence in Bendigo, appeared to facilitate Craig's expectation that he did not live in a fire-prone area. In Horsham, the perceptions of bushfire risks were reinforced not only by Craig's increased perception of the presence of bushland, but also through interpersonal interactions (where it was 'always on people's minds, whenever it got really hot,' and 'you're going to know people who are out in the bush').

Craig's experience in the urban-rural environment of Bendigo lacked both environmental representations of fire danger (bush, grass, trees), as well as interactions with other actors within his social sphere who might not believe in or necessarily discuss the

presence of bushfire risks. Craig identified groups of people who he felt would disagree with his appraisal of bushfire risks as well as physical locations such as Strathfield and Eaglehawk where bushfire risks would be more likely to take place, as he is able to designate the fire risk to an area which he perceives as having greater fuel levels and therefore correspondingly higher risk. Craig explained that he would know people in Horsham who "are out in the bush", and that those people would be on his mind during days of heightened fire danger. In Bendigo, Craig did not have the same network of actors in place he could use to remind himself of bushfire risks, and since neither himself, nor anyone he appeared to know in Bendigo lived in Strathfield or Eaglehawk, the bushfire risks were more muted.

Rebecca, a resident of Flora Hill for only 11 months, described herself as being aware and cognizant of bushfire risks in her area, citing an awareness of the Black Saturday fires in Bendigo. Rebecca described her plans to become more immersed in the community:

**Interviewer:** What about community involvement, are you involved with the community at all?

**Rebecca:** Not really. Because we're quite new to the area, we're trying to make friends now, like through school, kids' school with the parents. Also, through church, which we just started to attend. And my kids are involved in the basketball, they joined the team, so there will be opportunities for us to meet other people as well.

Despite her isolation as a new resident of the area, Rebecca appeared to be generally optimistic about making social connections and integrating with the community. Rebecca described the differences between being a victim of crime and being caught in a fire situation through a perspective of shared adversity:

**Rebecca:** I've realised there are a lot of drug problems in Bendigo, so that's another concern for us, and break-ins happening, like watching the news. I guess fire would be...everyone will be involved if fire happens, but crime is just...it's just individuals. A bit of luck.

Rebecca seemed more concerned about crime than fire. She drew comfort from the idea that she would not be alone in a fire situation, and was unsettled by not only being individually targeted by crime, but also the random and unknowable nature of when a crime could occur. The idea that Rebecca felt she would not be alone in a fire situation suggests that Rebecca believed she would be able to draw on others should a fire occur, and that the community would be united against a common threat. In opposition to this, Rebecca's feelings on the individualistic nature of crime suggest that she believed she might be alone if she were the victim of a crime, without the support of greater community:

Rebecca acknowledged that her area might be at risk of bushfire, and professed a reliance on media reports for advice:

**Interviewer:** So, do you feel like this might be a risky area for a bushfire to happen?

**Rebecca:** Yes.

**Interviewer:** Why is that?

**Rebecca:** Because of the past events.

**Interviewer:** So, do you guys have any preparations or anything you...

**Rebecca:** Not really. Because we are renting, and we're in a unit, we kind of, I guess relying that because it's a more built-up area, that the fire might not reach us, because we're closer to the city. And we can't really store anything; like we have a water tank outside, but that's not much help. But there's not really much that we can do, I think. Like, we know our exits. But where do you run? [laughs]

**Interviewer:** So, if there were a bushfire nearby, what do you think you would do?

**Rebecca:** Well, I'd have to watch the news and just follow what the instructions are. Because the main thing is, I guess, there's recently flooding in Bendigo, so that's why I was just listening to the news and where things happen, just try and stay away.

**Interviewer:** So just waiting for instructions?

**Rebecca:** Yeah, yeah.

This excerpt provides evidence about the complexity of Rebecca's bushfire risk perspectives. Rebecca stated that she felt like she was in a risky area for bushfire to happen but trusted in the insulation provided by suburbia, as well as news media to inform her of bushfire risks.

### 5.2.3: Expert advice

Hal worked with a Country Fire Authority (CFA) captain, and felt he could draw upon expert knowledge through their informal relationship:

**Interviewer:** Okay. Where do you get most of your information about bushfires...both in terms of actual knowledge of what to do, and also in terms of fire warnings and staying up to date?

**Hal:** Well, I would imagine when we've been through this in the past, generally TV. ABC24. Obviously, you've got the radio, you've got the FireReady app. CFA out my way is actually pretty good, so they'll distribute information, they'll hold meetings over the course of the year — not that I've been to any of them [laughs]. But they have pamphlets and so forth...like, the captain of the CFA where I am actually works here, so if I had any issues I'd just go and see him, talk to him and say, 'What do I need to do?'

Helen reflected on the various channels through which bushfire risk discussions made their way to her:

**Interviewer:** So, broadly speaking, how much would you say you know about bushfires?

**Helen:** Probably broadly speaking, I would, I think I don't know a great deal about them, yeah. Like I hear about them, what you see on the media, what you see more directly, like around home and around the area of Bendigo because of the bushfires that have impacted. So, just in



discussing with people, you know, family etcetera. Yeah, that's about it. And what I hear on ABC radio.

Megan experienced conflicting messages surrounding bushfire risk through her interactions with the local council, disrupting a clear message of whether the area was at risk of bushfire or not:

**Interviewer:** Do you think experts or the government or someone has a level of responsibility in keeping you aware of the risk to your home?

**Megan:** Yes.

**Interviewer:** How much, what level do you think that is?

**Megan:** We got a...in October last year, we got a letter from the council last year, saying that we needed to clear out our gutters and everything, but I got frustrated at them because they're in charge of that track and that was really overgrown, so I had to make a few phone calls to the council to get that, just for snakes and stuff as well. So, informing us, so far, they've been pretty good, but what they're doing is not much, in my opinion.

The excerpt suggests that the local council did not appear to produce an effective message that bushfire risks existed in the environment. Although Megan was able to identify the overgrowth of the track as a fire hazard (but snakes seemed to be a greater concern), the council's apparent disregard or delayed response to participate in the maintenance of those grounds, coupled with simultaneously instructing her to maintain her own residence produced a conflicting message about fire risk. Megan did not observe the council as doing much about the areas of bushfire risk she perceived in the aqueduct track, yet she was advised to make efforts to fortify her home against bushfire risks. If Megan had witnessed the council performing appropriate maintenance of the track, then a clear interpersonal message would be evident; the council would be demonstrating that risks may be present in the environment, they

are taking steps to mitigate them, and Megan should perform similar measures around her own home. Since those maintenance tasks were not observed as being performed, then there was instead a demonstration that risks were not present, and thus the perception of Megan's home environment as being prone to bushfire was suppressed.

Megan's experience with the local council contrasts with Jackson's experience. Jackson, a resident of Flora Hill, was informed by the council when he built his home that there were potential bushfire risks in the area. He was provided with planning information, told to adhere to certain building restrictions, and noticed council workers maintaining the area:

**Interviewer:** Do they ever give out warnings or anything? Like, 'there's a bushfire nearby, watch and act,' or 'look out for this'?

**Jackson:** Not that I can remember at the moment. I only remember when I was trying to build a house and I went to the council. And the council gave me that map, and in that map, I realised 'Oh, this area is actually higher risk'. That's why I couldn't build that evaporative cooling in there, because of that map. That's all I was aware of.

**Interviewer:** So, you were surprised to learn that that was a higher risk area?

**Jackson:** Yeah. But one thing that really helped me, to calm me down is that that area, um, will be regularly maintained by the council. So that means that, it's good in a way, that it's being maintained, so I don't have to worry about the bush area.

**Interviewer:** And they're good at keeping that maintained?

**Jackson:** Correct. They have people come and clean almost every month.

While Megan experienced conflicting messages of bushfire risk from the council, the risk messages Jackson received evidenced a clear need to protect against threats. He was told that bushfire hazards were present in the area (a fact he was surprised to learn), and noticed the council actively working to control the hazards, which both assisted in making bushfire risk seem 'real', but also reducing the anxieties he may have held about those risks.

### **5.3: Observations of susceptibility and exposure**

The following sections continue the discussions of bushfire risk susceptibility and vulnerability perspectives, highlighting the accounts of three sets of participants. Each set of participants illuminated particular aspects of URI engagement with bushfire risk; these participants generally felt that there was bushfire risk present in the environment, but they approached that risk and its management in different ways. Grace and Peter identified that their preconceived notions of what bushfire risk looked like had been challenged, forcing re-examination of their relationship with bushfire risks. Gwen and Greg described their views about normal or 'common sense' responses to URI bushfire risk. Sheree, Hal and Kevin reflected ways in which other actors responded to bushfire risk in a surprising or perplexing fashion.

#### **5.3.1: Re-assessing bushfire risk**

While participants often followed each other in describing themselves as not at risk of bushfire due to the built-up nature of their surrounds, others did not. Grace and Peter (the only couple interviewed in the sample) expressed an awareness of the risks of bushfire around their home, citing fires in proximate suburbs and observation of fire-danger warning boards:

**Interviewer:** Do you, I guess, feel like a bushfire could ever happen around Eltham?

**Grace:** [Immediately] Yes. I know that a couple of years ago, gosh it would have been more than that actually, but there was a front that was only a couple of kilometres away from Research, so they are, they can happen in this area. I remember we were driving past Epping, and driving past what had been a bushfire front, and I was like 'This is *Epping*' [her emphasis], and Epping is one of those, you don't think of that as an area where bushfires would occur, but yeah, it is always—

**Peter:** That one was sort of a bush-grass-fire type, yeah...

**Grace:** Yeah. But yeah, driving into Eltham, when I was still working, I'd drive into Eltham every evening after work and see that, you know, 'bushfire code-red' sign, and it really does sort of drive it home that it could happen in this area.

Grace was aware that a bushfire could take place near her home and alarmed by the thought. Noticeable within this excerpt is a conflict between Grace's idea of suburban Epping (a built-up suburb 10 kilometres north-west of Eltham, characterised by many factories, industrial facilities and suburban dwellings) and her observations of its susceptibility to fire danger. Where it appears Grace's initial expectation had been that Epping was a suburban area (and therefore safe from bushfires), her subsequent expressions indicate disbelief that bush- or grassfire could occur so close to home.

Grace also remarked that the "bushfire code-red" really does sort of drive it home that it could happen in this area'. This appears to have been a strong indicator of bushfire risk which Grace observed, challenging the perception of the area as being free from bushfire risk and reinforcing Grace's perspectives that bushfire risks were present in the environment. Between Grace's awareness of the proximity of fire danger through her reflections on Epping, and her recognition and appraisal of other fire danger warning signals, Grace perceived bushfire risk as manifesting in realistic locations around her home.

Peter (Grace's husband) remarked on whether he felt the people in their suburb of Eltham were bushfire conscious:

**Interviewer:** Would you consider Eltham to be a fire-conscious suburb?

**Peter:** I know there is a degree of [fire-consciousness] ...but I wouldn't say it was a fire-conscious suburb. I'd say that possibly a bit further out, where it is a little bit more semi-rural like Research, more so. I think Eltham is on the border where it feels close enough to the town, and everything, that it's not really considered. I think even things like, where the safe points

of refuge are, like the library, still isn't very secure in that regard, so it wouldn't really be much of a safe refuge, and definitely not for the size of the population around.

Peter remarked that Eltham's proximity to more built-up suburban environments resulted in what he perceived to be a feeling of safety or immunity from bushfire risks in the community. Peter highlighted Research, the next suburb over as an area where people would be more likely to have perceptions of the area as being at risk of bushfire, however felt that in his own area 'it's not really considered'. Peter reflected on what he feels are vulnerabilities in the security of his own suburb; the areas of last retreat and safe refuge (such as the library) that were, in his view, not particularly secure and were not large enough to meet potential local need.

Helen described a similar re-negotiation of the presence of bushfire risk in the area as Grace:

**Interviewer:** Do you feel like your area might be a risky area, where bushfires could happen?

**Helen:** [tentative] Yes, I do. In terms of risk, I just, I don't believe it's probably high-risk. But I probably think about it more now than I ever did before, like when I was younger, because it just...when the bushfires came in, came to Bendigo, and got close in to Bendigo, I thought 'Oh wow. We're a lot more prone to bushfire than what you think'. You immediately think you live in the city, and it's all fine. But it is, by all accounts, fairly heavily treed and wooded, Bendigo. Probably think about it more now than I did before.

For Helen, observation of the proximity of the fires during Black Saturday appears to have been a crystallising event, forcing a re-negotiation of her perspective of exposure and vulnerability to bushfire risk. Where before Black Saturday, Helen felt that Bendigo would be impervious to fire, her observation of the bushfires forced a re-examination of the landscape, and bushfire risk had become a more terrestrial risk for her.

### 5.3.2: Control and coping strategies for bushfire risk

Gwen perceived bushfire risks as being present in her residential environment, citing both the events of Black Saturday as well as observations of nearby bushland as evidence of the town's vulnerability:

**Interviewer:** Do you feel like a bushfire could ever happen around your area?

**Gwen:** Absolutely.

**Interviewer:** What...what likelihood...I mean, you don't have to put a number on it, but...

**Gwen:** Well you see, Bendigo is a bit different, because we recently, in recent memory witnessed, experienced how close we were to, well, to the entire Bendigo being annihilated because of a bushfire in Black...Friday...?

**Interviewer:** Black Saturday?

**Gwen:** Black Saturday. We realised, well, I know that it's a very real possibility. Given the fact that we have major corridors of forest through, dotted through our town, or city, yeah.

Perceiving major corridors of forest intersecting Bendigo, Gwen placed bushfire risk in definitive locations around her home. Being able to locate bushfire hazards in definitive locations enabled Gwen to imagine sites where danger could manifest, further emphasised by her reflections on the danger of 'annihilation' faced by Bendigo on Black Saturday. Though she did not have a formal or written fire-plan, Gwen performed some tasks around her home to manage and mitigate her vulnerability to fire-danger, and had an idea of what she would do if she needed to evacuate her premises:

**Interviewer:** Do you take any preparations for bushfires?

**Gwen:** I only do the usual things; make sure the gutters are clear, and make sure my area is clear of leaf litter. I do have some old trees around that do drop, so I am conscientious enough

to pick that up. But that's essentially all I've got. I haven't set up any kind of fire evacuation plan other than I know what I'll take and go with. That's about it, really.

Gwen described her actions around the house as 'the usual things' and carried the implication that such actions were not just normal for her but would be normal for anyone who lives in a bushfire-prone area. Performing actions around the home to mitigate the severity or potential of bushfire hazards was often described in terms such as 'fairly basic' or 'the usual things' that were expected of most people.

Tristain, for example, identified these as actions most people should be performing, and felt that most people generally did so:

**Interviewer:** What sort of expectations do you have for people in your community during fire season? Do you think there's a way they should behave, and do they actually behave in that manner?

**Tristain:** Yeah, I think the fairly basic things of making sure the lawns are mown and not too dry, and you know, cleaning out the gutters...although I'm a bit behind on that one. You know, not having to, you know, dedicate every minute of every day to bushfire prevention, but just simple common-sense stuff. And I think some members of the community could probably do a bit more in that respect, but for the majority they're on the ball and doing the right thing I suppose.

Critically, Tristain identified home or garden maintenance as a simple action effective at reducing susceptibility to bushfire risks, and accessible enough that most people should be performing it. Rather than dedicating 'every minute of every day' to bushfire prevention, Tristain was of the view that bushfire risk could be mitigated through 'the fairly basic things'; and believed that while some members of the community were lax in their performance of these tasks (and identifies himself in this group), most people were conscientious of bushfire risk and

did their part to mitigate its potential effects ('but for the majority, they're on the ball and doing the right thing I suppose').

Greg also described a number of 'common sense' conventions around bushfire risk, and described other members of his community who did not observe or reproduce these conventions in the same way that he did:

**Interviewer:** Would you consider Kangaroo Flat to be a fire-conscious place?

**Greg:** Very much so, yeah.

**Interviewer:** More so than Maiden Gully, or someplace like that?

**Greg:** I don't know whether more...I've got family and friends who live out Maiden Gully, and they're very much obvious to it. And one of them lives out in the bush area, and he's very much...particularly when they had those big fires out there a few years ago, he's very much aware of tree growth. Unfortunately, you have a bit of bureaucracy regarding where you can cut, how much you can cut back, and I think that for a lot of people, where common sense comes into it, they think 'Well hang on, a little bit of common sense here...' But you know, I'm not going to pigeon-hole greenies, but let's just say there are certain areas in the community that have a lot more to say than the....and it's nice to have trees, and it's nice to have the birds and the possums, but you know...a little bit of common sense goes a long way.

Greg identified *others*, in what he describes as 'certain areas of the community', 'greenies' and 'bureaucracy' as threats to this 'common sense' understanding of bushfire safety. Others, who neither recognise nor exercise the same 'common sense' toward bushfire risk as he understood it, did not take part in reproducing the interpersonal, interactional conventions and norms of bushfire safety as he did. In contrast, Greg identified his friends and family living in the area of Maiden Gully (a heavily forested DBPA area of Bendigo) as being cognisant of bushfire risks and the correct way to manage them ('very much obvious to it'): these are the people within his social sphere who could and did observe and reproduce the interpersonal



interactions of bushfire safety as realistic issues, and in doing so, reinforced Greg's own bushfire risk perspectives.

Asked how bushfire warning information reaches and affects him, Greg responded:

**Greg:** Basically, it's usually through written brochures that they usually send out. Television...television is quite predominant and that's probably the major thing that you see every night on TV. Even now, currently every second or third ad is a bushfire ad. You know, be aware, stuff like that.

**Interviewer:** So how do you feel when you get these sort of warnings? Is that a good thing...?

**Greg:** I think it just continually makes you aware of what's going on around you, so you just don't become complacent, you just don't become too lax about it. You don't see it and start fretting, going 'Oh my god, Armageddon's here,' but by the same token, you think, you know....you drive somewhere around some areas of Bendigo, and as I said, going back a few years ago, Maiden Gully, they had huge fires where people were actually killed out that way. And you drive out through there, and it's the same situation.

**Interviewer:** So, people are...complacent out there?

**Greg:** Yeah...well I don't know whether it's complacent, or lazy, or they just don't have the time, or they're expecting someone else to do it. But you drive out through some of those areas, and you look, and you think 'Jeez'. Nothing's changed. And people were killed out there. As I said, you know, fifty percent responsibility.

Complimentary to the interpersonal interactions he experienced around bushfire risk, Greg also observed risk messages from other social actors in the form of the warning materials he received (through brochures and television advertisements), and also through the observation of bushland in the areas he found himself driving through. Warning materials, physically delivered to the home as well as received through the television, enabled Greg to imagine the world in which the presence of bushfire risk was a reasonable perspective, whilst his experiences driving through Maiden Gully allowed him to definitively imagine bushfire

hazards and the people exposed to them. Greg directly observed households situated among what he perceived as hazardous and overgrown areas and expressed disbelief that the residents therein would not alter their behaviours to mitigate their risk of fire danger.

### **5.3.3: Observations of others' control and coping strategies for bushfire risk**

Some participants reflected on the ways other members of the community interacted with bushfire risk. Sheree mentioned that while her area was mostly socially cohesive, and was alerted to a grassfire by her neighbours:

**Interviewer:** Do you feel like it [bushfire] could ever happen around your area?

**Sheree:** It happens all the time. As I said, the closest we've got was when the neighbours just over the back fence caught a grassfire, and that happened very quickly. We got alerted by the neighbours, my husband went and got the truck. Within fifteen minutes, and it was a paddock away, well it was probably closer than that, it was burning down the tennis court building. A shift in the wind, and our house would have been gone.

While her local community seemed to be cohesive, Sheree identified some areas which were problematic:

**Interviewer:** Would you consider your area to be fire-conscious? Are there anyone....is there anyone you think lives in the area who isn't really up to speed with the rest?

**Sheree:** Probably people who aren't fully immersed in the community. There are a few houses around that are people who moved in because it's cheap, but usually people try not to sell to people who are coming in without that sort of background, because they usually end up...I don't know, cooking methamphetamine or whatever...so not around our area.

Sheree's comments on community immersion are not dissimilar from Craig's original comments about his own communities in both Bendigo and Horsham (*Section 5.2.2*, above).

As people are less involved within the local community, the capacity for interpersonal interactions which may facilitate discussion of or resilience to bushfire risks diminish. Sheree went on to describe the anxieties she felt around the perception of increasing crime rates in her area, linking her statement about 'cooking methamphetamine' to a greater sense of vulnerability. Her comments are illustrative of the *otherness* of those who were not fully immersed in the community, suggesting that within her community there existed a subset of people who did not have the background or skills required to survive in the bushfire-prone environment, and preyed upon other households:

**Interviewer:** Are there any other sort of anxieties or threats that come with living in that sort of territory?

**Sheree:** The only threats or anxieties I suppose are sort of perceptions of increasing crime rates. Apparently, our particular area along our road have been targeted by criminals, because they're considered soft targets. There's a big drug, ice<sup>14</sup> or whatever, you know, thing, so a lot of opportunistic criminals.

When read together, these two excerpts suggest that certain, more deviant elements of the community (in this case, people involved in drug manufacture and trade, as well as opportunistic crime) do not participate in social interactions which promote bushfire safety. People who do not perform correct bushfire risk behaviours (either through lack of experience or lack of interest), appear to be a highly visible object to Sheree within the community, obvious in their failure to reproduce the norms of fire safety. Sheree commented that landowners in the area actively avoided selling to people without knowledge of rural areas, as this appeared to be a potential indicator of criminality or nefarious intent.

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<sup>14</sup> A common term for crystallised methamphetamine in Australia.

Hal and Kevin held opposing perspectives on the presence of bushfire risk and how it should be mitigated. Hal recounted a story from his former boss, expressing incredulity at the bushfire hazard responses of several young men in Eaglehawk:

**Interviewer:** Would you consider, I guess, Bendigo to be a fire conscious place?

**Hal:** [Laughs] I don't know. Look, I think there'd be certain, like any community, you're going to get some people who are incredibly fire conscious, you're going to get others who have absolutely no idea. So, to give you an example, this is when we had the fire last time, we had a guy here, who used to be a former boss of mine, and he was a member of the CFA out in [omitted for anonymity]. He got called in to, you know, the fires in and around Eaglehawk. And you know, he said some of the behaviour of some of the people he just couldn't get over. Like, there was one guy, probably about your age, you know, huge fire is coming towards them, so they get up onto the roof of their place with an esky, some beers, they've got their...you know, fold out chairs and so forth, and they had three or four hoses, thongs, shorts, singlets and so forth. And their attitude was 'Bring it on, we can do this.' And he just thought to himself, and I'd have thought to myself, this is crazy. If a serious fire is coming your way, you've got no hope. So, I have to say some people are fire conscious, and there'd be others, not wishing to be offensive, who'd have no idea at all.

Kevin was also incredulous of the hazard response he saw a man in White Hills perform:

**Interviewer:** So, broadly speaking, how much would you say you know about bushfires?

**Kevin:** Probably not a whole lot, to be honest. I know they're no good [laughs].

**Interviewer:** So, no direct experiences with them, anything like that?

**Kevin:** No sort of direct experiences, just sort of, probably Black Saturday in Bendigo was probably the biggest. I remember, because there was smoke everywhere in Bendigo, I just thought...I saw some bloke in White Hills putting water over his roof and I thought he was a dickhead, because I thought, you know...it's coming from miles away, but it was a lot closer than I thought I guess.

Hal and Kevin both responded with incredulity to members of their community who performed actions to protect their homes from fire but approach these actions from different perspectives. Hal derides the young men on the roof of the house at Eaglehawk, drawing particular attention to their equipment, attire and general attitude; the implication being that, though well intentioned, they were grossly unprepared for the task of protecting their homes, and in Hal's words: 'have no idea at all'. This attitude is contextualised further when Hal's own home defences are considered, which included multiple water tanks, access to bore water, pumps, a makeshift fire-unit on a utility vehicle, and clearance work he had undertaken around his property to provide multiple entry and exit points. Hal's capacity to feel secure as a result of his more organised, high levels of preparation are juxtaposed in the comparatively disorganised and low levels of preparation he heard the young men in Eaglehawk took. Both Hal, and the young men in Eaglehawk held perspectives about the manageability and correct response to bushfire threat, but the differences in those perspectives illustrate that what would be a seemingly logical course of action for one person (in this case, climbing up on to the roof of one's house with a fold-out chair and a garden hose) can be completely irrational for another.

Kevin, who expressed being less certain about what appropriate home defence for bushfire is supposed to look like, instead ridiculed the man in White Hills for performing any action at all to prepare for the fire. For Kevin, such an action appeared to be unnecessarily alarmist and therefore inappropriate; after all, the fire was 'coming from miles away.' Kevin acknowledged that he did not have any bushfire experience early in the interview and felt that his own response to the danger might not have been correct. As mentioned in *Section 5.2.1*, Kevin expressed that he always felt safe in White Hills. Thus, there is a conflict between Kevin's feelings of safety in White Hills, and his observation of the man putting water over his

roof; the action of preparing for a fire is inconsistent with Kevin's feeling that White Hills is a safe place, as if it were a safe place, then no such preparations would be necessary.

## **5.4: Chapter conclusions**

The data indicates that the sampled URI residents constructed their relationship with bushfire risk in various ways and held nuanced and unique perspectives about their exposure or susceptibility to bushfire risk. Objects in the environment, such as grass, trees, bush, overgrowth and the like were often perceived to represent potential bushfire hazards, however the threatening nature of these objects may be tempered by observations of urban elements, such as built-up housing and concrete.

Participants also reflected on their interactions with other people, as well as actors such as council bodies. Interactions with various people and actors caused participants to examine their relationship with bushfire risk and co-existed with perceptions of environmental objects to construct nuanced appraisals of bushfire risk in the environment and their own exposure or vulnerability to those risks.

Importantly, the study does not assume that 'objective' levels of bushfire risk are uniform within DBPAs (at least insofar as 'objective' levels of bushfire risk exist). Different residences within URI areas will naturally have different 'levels' of risk, with more densely forested areas (and homes closer to those areas) being arguably more 'risky', in so far as any available fuels could contribute to greater conflagrations, and proximity to those fuels would be hazardous under the right conditions. Further, 'objective' risk differs from perceived risk; insofar as 'objective' risk is measured through statistical likelihood of fatality (or at least, harm) from a hazard (Sjöberg 2000), while perceived risk reflects perceived likelihood, which differs from statistical probabilities through various biases (Hirschman et al. 1983; Siegrist & Gutscher 2006; Sullivan-Wiley & Short Gianotti 2017). Thus, the study has no means through which to

offer an ‘objective’, statistical measurement of risk to residents of DBPAs along the URI; as stated in Chapter 4, it uses only the metric of residence with the DBPA as an ‘objective’ statement of risk.

However, while the study does not assume that risk is uniform across DBPAs, the study does assume that risk is *present*, at least in some capacity within DBPAs. I argue that bushfire risks are present by virtue of the classification of the area as a DBPA (or else these locations would not be designated as ‘bushfire-prone areas’), yet bushfire risks may be perceived differently between members of the community. Perceptions of bushfire risk in the residential area may vary, based on residents’ observations of environmental elements and the various interpersonal interactions they experience.

Participants may have been at different ‘levels’ of risk, with some being closer to fuel loads than others; however, it should be emphasised that bushfire risks are complex. Dangers may not be as simple as being burned by a nearby fire; the potential hazards of radiant heat, spot fires igniting through travelling embers, smoke inhalation, and evacuations under dangerous conditions which can trap escaping residents must be considered. To simply say that residents *perceived* different levels of risk because they were *at* different levels of risk, with residents in more ‘risky’ areas perceiving greater amounts of risk, oversimplifies their own frameworks of risk perception, and does not consider the unique character of the URI. Many of the URI locations featured in this study are not only characterised by outside edges, where urban meets rural, but also inside edges, where corridors of dense bushland run through suburbs like veins. Thus, while the study acknowledges that ‘levels’ of risk may not be uniform, it emphasises most importantly that risk is nonetheless present.

This chapter has set out to examine URI residents risk perspectives. The data indicates that URI residents may form judgements about bushfire risk based upon assessments of the environment as being ‘urban’ or ‘bush’, interact with other members of the community in

forming risk perspectives, and are reflexive about the role of their local councils in performing maintenance tasks. URI residents may re-assess their own perspectives of vulnerability to bushfire risk following encounters with bushfire, exercise a number of control and coping strategies, and form judgements about the control strategies and coping strategies of others. Ultimately, the sampled URI residents appeared to be thoughtful and willing to engage with bushfire risk, even if such engagements did not always align with the expectations of emergency managers.

In the next chapter, I proceed to analyse the data in relation to ontological security structures of study participants; specifically, through an analysis of their routines and their *practical consciousnesses*.





# **Chapter 6: Routines and Practical Consciousnesses in Urban-Rural Interface Residents**

## **6.1: Introduction**

This chapter addresses the second research question of the thesis: *How do residents in bushfire-prone areas along the urban-rural interface construct and protect their sense of ontological security?*

Analysis of the data reveals the means through which study participants from the urban-rural interface (URI) constructed and protected their sense of ontological security. First, participants in the study appeared to follow some type of *routines*. Participants used routines to achieve a sense of constancy in their day-to-day life. This constancy may not have always provided a complete predictability but did appear to give them the capacity to manage and provide order and structure to their lives.

Second, participants appeared to utilise various forms of *practical consciousness*. Practical consciousness is described as 'tacit knowledge about the circumstances of one's social actions' whereupon individuals routinely draw upon knowledge without questioning its foundation (Lippuner & Werlen 2009, p. 39). This section highlights six forms in which practical consciousness appeared to be utilised by participants to protect themselves against ontological insecurities offered by bushfire risks, regardless of their actual effectiveness of such measures. Moreover, participants expressed a reliance on the existence of knowledge that they did not actually possess. Many participants described not knowing how to prepare or respond to a bushfire but were confident that they could locate this information if they were required to do so.

## **6.2: Routines**

When analysing the data, I searched for indications of *routinisation*, such as the ways in participants might describe their lives in terms of a routine structure, and whether regular, certain, or other everyday occurrences transpired. Routinisation, as described in *Section 3.3.3*, is critical to the psychological mechanisms whereby a sense of ontological security can be achieved, driving ‘a wedge between the potentially explosive content of the unconscious and the reflexive monitoring of action which agents display’ (1984, p. xxiii). Ontological security is thus predicated in the routines of ordinary, everyday life, and is founded on an ‘autonomy of bodily control within predictable routines and encounters’ (1984, p. 64).

Participants were asked about a normal day or a normal week in their own lives. Through initial discussions of each participant’s everyday life, I was able to determine if any bushfire-related perceptions or behaviours formed a part of normal, everyday routines. None of the participants described bushfire-related perceptions or behaviours as part of their ‘everyday life’, nor did they discuss the topic of bushfires prior to the topic being introduced to the conversation by myself. This is not to suggest that thoughts of bushfire were *not* a part of any participant’s everyday thoughts or routines, merely that no evidence of bushfire risk being a part of everyday life was detected at this early stage.

Participants generally presented similar descriptions of their ‘everyday life’ and accompanying routines. Although participants came from a wide range of backgrounds and held a diverse set of occupations, they tended to describe themselves and their daily routines in language which de-emphasised these experiences as being unique. Participants often described their daily experiences in terms such as ‘fairly typical’, ‘the usual’, ‘pretty standard’, and ‘pretty boring’, and described activities in terms of everyday patterns of predictability. General life maintenance activities such as family commitments, socialising, grocery shopping and recreation were common:

**Interviewer:** What's a normal day, or a normal week like for you?

**Helen:** A normal week is...I work full time. So here at work, so pretty much just...yeah...the usual, you know? Get up and come to work. Get to the weekend and... yeah, do some things with family, and yeah, back to work.

**Interviewer:** What would you get up to on a typical day?

**Craig:** Go to class, do homework, go for a shot of basketball, go down the street, groceries, browse and all that stuff I suppose. Pretty run of the mill.

**Interviewer:** What's a normal day or a normal week like for you?

**Kevin:** I don't know. Go to work, go to Uni [laughs]. Play sport.

Some participants described their everyday life as adhering to a clear structure and order. Bianca, for instance, described everyday life as busy, requiring careful ordering of tasks:

**Interviewer:** What's a normal day or a normal week like for you?

**Bianca:** Incredibly busy. So, probably get up about 6:15, kids ready for school, hubby takes them, I come here [the office]. I work through everything, finish, go pick them up, run them to various sporting events, some time we end up home again having tea [dinner]. Monday to Friday, that's pretty much that. Weekend: sporting, got an above ground swimming pool so during summer in the afternoons might have a bit of a swim. Don't tend to do a lot of bushwalking, although we walk the dog up the end of Cousins St, there's a bit of national park so he can wander around through there a bit.

While participants generally held a number of predictable, routine elements in their lives, others had more difficulty describing their lives in this way. They cited everyday life as being often unpredictable, and routines required flexibility so that order might be maintained:

**Interviewer:** What's a normal week like for you?

**Emily:** A normal week?

**Interviewer:** Yeah, what would you get up to?

**Emily:** [laughs] I'd come to work, I'd go home. My husband's a shift worker, so we never really have a normal week. Every week is different, whether he's home, I'm home, the kids are home, yeah.

**Interviewer:** So, could you tell me what a typical day or week is like for you?

**Megan:** Yep. So, I'll start from next week because that's when my routine...it's a bit all over the place because she's [Megan's daughter] only six months. I'll be working 11AM-3PM and then John leaves the house at about 7AM, and I'll be leaving the house at about 9AM, and I'll get home at about 4PM, and then I'll just make dinner and... clean the house and that's about it [laughs].

**Interviewer:** What about weekends?

**Megan:** Weekends we spend, hopefully Saturdays and Sundays we try and get out and take the dog for a walk, because she's a German Shepherd and she needs exercise. And we take Zoe to the park, and we sometimes have people over but since we've had Zoe we just stay home really, we don't do much [laughs].

A common theme among participants was the characterisation of 'everyday life' around career/work/business commitments, with participants organising the normal week in some way around jobs or careers:

**Interviewer:** What would you do on a typical day or week?

**Hal:** Are we talking like, a work week?

**Interviewer:** Sure.

**Hal:** So, in terms of work, we're across multiple things. You've got your admin, or services as we like to call it, if you get time you do a bit of research as well. So, it's 'work' work here.

Outside of here, the family has business interests, I'm involved in that. Um, you know, that can involve meetings with lawyers, accountants, banks, all kinds of individuals and entities.

Across the sample, it appeared that participants carried out their daily activities confidently, and if not with an easy certainty, at least with an expectation that their week would be manageable. Even for participants like Emily and Megan, who could not easily define a 'normal week' or were otherwise experiencing disruptions to their usual routines, life was for the most part predictable and free from problematic uncertainties.

The data demonstrates that participants *did* hold routines, affording them feelings of permanence and stability. The data at this point reflects what the literature describes; that people do indeed adhere to a series of routines, that these routines appear to provide some element of constancy and predictability, and that these routines shape the boundaries of what is 'normal' and expected. At this initial and unprompted stage, participants did not express factoring any fire-preparation into their normal, everyday routines, nor did they express any expectation that a bushfire was likely to occur.

### **6.3: Practical consciousness**

Analysis of the data reveals that participants used *practical consciousness* in the construction of their sense of ontological security. This can be described as 'tacit knowledge about the circumstances of one's social actions', wherein for the vast majority of social situations, individuals routinely draw upon knowledge without questioning its foundation<sup>15</sup> (Lippuner & Werlen 2009, p. 39). Through practical consciousness, existential and practical

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<sup>15</sup> This differs from *discursive consciousness*, which Giddens describes as 'being able to put things into words' (1984, p. 45)

possibilities can be 'bracketed', allowing elements of the fragility of life's structure and order to be ignored.

Participants who held perspectives that bushfire risk was a feature present in the environment often performed what could be described as existential bracketings in some way to mitigate their feelings of exposure. Participants cited preparatory or maintenance tasks around the home as methods through which their exposure to bushfire risk might be diminished. These tasks ranged from simple actions such as trimming of undergrowth or raking of leaves, to more complex defences, such as the preparation of fire-readiness kits or other fire-planning tasks.

Importantly, the effectiveness of risk mitigation strategies described by participants (such as clearing gutters and leaf litter) for reducing their susceptibility to bushfire risk is not the point of assessment or relevance for this study. If residents of URI areas perform leaf clearing around their homes, then they have arguably lowered their susceptibility to bushfire risk. This study does not, however question '*How is risk being addressed by residents of URI areas?*', but instead '*How are residents constructing and protecting their sense of ontological security?*'. Thus, the point of relevance is in identifying how risk mitigation strategies contribute to the construction and protection of ontological security, and not whether those strategies are actually effective at addressing vulnerability to bushfire risk.

This section will illustrate six elements of practical consciousness which held some bearing on the ways in which participants constructed ontological security in the face of bushfire risk. They were: (1) reflexivity and conflicts between discursive and practical consciousness, (2) comfort in the possibility and ease of evacuation, (3) belief in the efficacy and timeliness of warning systems, (4) preparatory tasks for reducing bushfire risk, (5) potential that the consequences of a bushfire could be mitigated by insurance, and (6) security in the existence of knowledge one did not actually possess.

### 6.3.1: Reflexivity and conflicts between emotion and logic

Participants who did not feel that bushfire risks were a significant presence in the URI environment did not or were less likely to reveal a sense of vulnerability. Those that did perceive, observe or imagine bushfire risk as being present in the environment often acknowledged a feeling of vulnerability. Conflicts emerged between their feelings of competence to manage bushfire risks, and the *feeling* that a bushfire might actually happen. Shannon presents a good example of these conflicts, describing acknowledgement of bushfire risks and described her preparations toward them:

**Interviewer:** Okay...so what would your plan be, if [a bushfire was to occur] ...

**Shannon:** Our plan is always to leave. But in the event that we get caught, um, and are unable to leave, then we bought ourselves a fire-pump, we have a swimming pool which holds about 80,000 litres of water, and we have a suction hose which can reach into the pool and to the fire pump, so in the very worst case scenario our pool's in a large room, so you can't actually shelter in it, because the roof would fall on your head, but if we were to get caught, then that's our plan; just wet everything down with 80,000 litres of water and that's our best hope. But it's always to leave, every summer we have everything, documents backed up, computer files and whatever, a file full of paperwork that comes and goes with us on high bushfire risk days. We know what we would want to take, and it's funny when you assess that because it's not really that much that you would actually take with you.

Shannon acknowledged that bushfire risk may have been present in her area and was cognisant that she may have to act, should a bushfire occur. Though her plan was to leave in the event of a fire, she also had the contingency plan of using her swimming pool and hose to combat fire hazards. Critically, important documents and files were backed up and transported with her and her family during high fire danger days, allowing for greater mobility in the event of a fire.



Despite Shannon's plan to leave during days of heightened fire danger, she expressed that she did not always follow this plan:

**Shannon:** And it [our plan] would always be to leave. But that said, you have high bushfire risk days, and we don't pack the car and go away. We're there and we're vigilant, but we're not doing probably what we know what you're supposed to do on extreme high bushfire risk days, and actually getting out of town.

**Interviewer:** Okay. Why not?

**Shannon:** Um...I think it's partly because we have that security of having that pump and some...but it's also partly because there's a part of you that just thinks it's not going to happen, and that you'll have enough warning. And I know that's not true; I can remember Black Saturday, I can even remember Ash Wednesday, I'm that old. And I had relatives who lost a house in Ash Wednesday. But yeah, I don't know, you just don't think...and also being in town boundary, you think it's...and right next to a train line, and right next to the cleared space of a recreation oval, you sort of think that you have a little more warning than...but you know, Marysville can show you that's not necessarily the case.

Shannon described being aware of bushfire risk, planned to leave on high fire risk days, and even purchased a water pump as a plan of last resort in case evacuation became impossible. She was vigilant of bushfire risk, and reflexive in her knowledge of those risks and her relationship with them. Rather than perceiving her choices as being 'correct', or having no knowledge of effective bushfire risk mitigation strategies, Shannon was aware that the actions she performed on high fire risk days may not have been the optimal choice ('not doing probably what we know you're supposed to do on extreme bushfire risk days, and actually getting out of town'). Shannon understood her individual choices reflexively, describing the conflicts she felt between her knowledge and her feelings, and understood her own biases for making the choices she thought to be incorrect.

This excerpt highlights a conflict between Shannon's discursive consciousness (the things she was able to put into words) and practical consciousness (a knowledge accepted without a questioning of its foundation). Despite literally (and therefore, discursively) stating that she 'knows it's not true', Shannon expressed a feeling that she will be safe, and that she had felt (during a high fire danger day) that a bushfire is not going to happen. This feeling may have been legitimated every time Shannon succeeded at staying home on a high-fire risk day and did not have to deal with a bushfire, reinforcing the choice as correct and practical, though still conflicting with her discursive knowledge of bushfire risk (I.e., merely because *this* time there was not a need to evacuate does not mean that next time there will not be a need to do so). Thus, staying home on a high fire-risk day had become regularised and 'normal', despite a discursive awareness that it might not be the 'right' thing to do.

### 6.3.2: Comfort in the possibility of evacuation

Like Shannon, many participants expressed that they would evacuate their homes should they be confronted with fire danger, rather than stay and defend. While most participants described evacuation as an ever-present possibility, few indicated that the circumstances of their evacuation could be difficult, or that their window for evacuation might be narrow. Participants described evacuating their properties as something which could be done with ease, should the need arise:

**Interviewer:** Do you know what you would do if there were a bushfire nearby?

**Jackson:** I think I know what I would do. I would run away [laughs]. I would probably leave all my stuff, belongings, if I didn't have time...don't wait, just go and get out from the house.

**Interviewer:** So, if there were a bushfire or a grassfire nearby now, what do you think you would do?

**Rowan:** Get everything and leave, probably [laughs]

**Interviewer:** Where would you go?

**Rowan:** Good question. Depending on where the fire was, I'd probably go to Maiden Gully, depending on if it were in Flora Hill. Then I'd probably go to Maiden Gully, because family are still there. From there, who knows? I don't know, depending on where it went from there, I guess.

**Interviewer:** Do you take any preparations for bushfires?

**Bianca:** We don't, but we would leave our...our plan is we will pack kids, animals, photos, computer into the car, and go to the parents' place, we won't be staying...and hope for the best.

Differences in exit strategies are noticeable. While Jackson and Rowan were primarily focused with *getting away* from a location, Bianca was instead focused on *reaching* a location. Jackson had no destination in mind in terms of refuge point, merely that it would be away from the fire, while Rowan's ultimate choice of location for refuge was contingent on the direction and/or movement of a potential fire. Bianca identified her parents' home as a safe place, but did not identify any contingencies if a clear route could not be established or if her parents' home became unsuitable as a destination of refuge. None considered or mentioned going to a council, CFA (Country Fire Authority) or SES (State Emergency Service) designated safe location, which themselves might change depending on conditions and circumstances.

Participants also had different interpretations of what was meant by 'fire plan'; for most, a fire plan seemed to be more about some agreement of what participants would take with them in the event of a fire (such as photos, mementos, important documents, pets), and less about other important logistical intricacies such as destination, route taken, what to do if family members were separated, others they should consider, and conditions under which one would leave. Bushfire risk responses appeared to be highly individualised, with collective action taking place only up to the householder level:

**Interviewer:** So, do you have a written fire-plan, or anything like that, or is it just an informal agreement?

**Chelsea:** Nah, yeah. Just sort of, I think I would do, I would grab...I have a bill file in the kitchen. I think I would grab that. Yeah, I would...I think your life is more important than worrying...even though I know you should grab photos, I'd probably try to grab some photos if I could, there's plenty of them handy in the house. And just go with...just your life is more important.

**Interviewer:** Did you guys have a fire plan, or anything like that?

**Trent:** Mmm...we talked about it. It would always be like, we'll grab birth certificates, passports and the dogs, that was the plan.

**Emily:** I say we don't have a fire-plan as such, but it's just...our plan is just to get out, not hang around.

The above examples represent a common response from residents, who expressed that they would leave in the event of a fire. Leaving the property was imagined as an option that would always be present, yet information surrounding this evacuation was vague. Evacuation of the property under threat of bushfire was described as a matter of getting in the car and leaving, often without any clear plan of where one might go, whether their passage would be impeded by a bushfire event (due to smoke, fallen trees, fire-fronts, other cars, etc), and what they might do if this were the case:

Helen provided an interesting perspective on the circumstances with which she imagined she would leave her property:

**Interviewer:** Do you know what you would do if there were a bushfire nearby?

**Helen:** Well, straight off the top of my head...I would, um...like, get the mop and mop bucket out, and have the hoses, you know? Hoses connected and just to keep a lookout for embers and keep listening...like, to the radio, any updates of anything.

**Interviewer:** So, you'd stay and defend instead of leaving?

**Helen:** I'd stay initially. But if it was...if I became more fearful, I would definitely leave.

Rather than committing to a single choice of staying and defending the home, or evacuating to a safer location, Helen entertained both choices in an attempt to maximise utility. Helen's perspective was that she would monitor the situation, with an initial plan being to stay and defend her home. She described a number of defensive measures, but ultimately concluded that she would leave her home 'if she became more fearful'. The possibility of evacuation as being an ever-present option allows Helen to bracket the existential danger of bushfire risk, and maintain agency, even if such contingency planning may be unrealistic. By having both options available, Helen is able to form a practical solution to the various 'levels' of bushfire risk; for a less severe bushfire, Helen could use her defences, but if that bushfire became more serious or more threatening, Helen imagined she could leave.

Natalie, a resident of Bendigo for almost a decade, did not describe having any particular defences against bushfires, yet had sought to educate herself on the dangers of bushfire:

**Interviewer:** So, broadly speaking, how much would you say you know about bushfires?

**Natalie:** I probably know a lot about bushfires, through watching...I've watched several documentaries over the years, because I'm originally from New Zealand. So, I had absolutely zero understanding of bushfires. When there was one that ripped through Canberra, I started like, watching the stuff that was on TV, and there was a...one documentary from a bushfire expert in the States who was saying that the best way to save lives and property is to stay and fight. And now, since Black Saturday, that's been reversed, you can't escape the ads on TV

that say, 'leave early, leave early, leave early'. So, there's always, like, whenever there's a bushfire, I always think: 'I wonder how many people are standing there with their hoses?'

Natalie identified conflicting information sources about the best way to respond to bushfire risk, challenging her ability to form a clear convention and establish a suitable direction of action. She wondered what others were doing to mitigate their risk, and whether those actions were in-line with the 'new' information about leaving, or the 'old' information about staying.

While she drew on a number of sources to give her information about bushfire risks. Natalie did not have a fire-plan. Instead, Natalie's defence against bushfire risks was predicated on what she felt were high levels of accessibility around her residence, providing her with multiple escape routes:

**Interviewer:** Do you know where you would go?

**Natalie:** I think, because we live on this weird intersection, so we have at least got four main road options. So, we can head north, down the Kerang Road. We can head back into Eaglehawk and the CBD. We can head down to Epsom, or we can head down to Marong. So, we would base that decision on where the fire was, yep.

By finding comfort in her ease of mobility, Natalie is able to compartmentalise the bushfire danger; it is imagined to only come from one direction and can therefore be easily navigated through the various avenues of escape available to her. Like Helen, Natalie is able to maximise her utility; due to the 'weird intersection' she lives at, there is conceivably no situation for Natalie in which she would not be able to drive away from a bushfire.

Natalie was aware that leaving was her safest option in the event of a bushfire, but instead of having a written fire-plan, she used other methods of preparation to bracket the existential risk of bushfires:

**Interviewer:** Do you guys have like a written fire plan, or is it sort of an informal agreement?

**Natalie:** Yeah, there's nothing written. Just every now and again, we'd chat about it, because I'm...I've become very conscious of making sure that the cars at least got half a tank of petrol, whereas my partner always likes to run it until the orange light. So, we talk about that, and make sure that you know, we've got decent amounts of petrol. And our informal plan is that we should try to take both cars, but we would convoy, we would follow each other. Because there's no way you'd want to, you know, 'You go that way, I'll go that way...'

By having a discussion with her partner occasionally, Natalie is able to frame some level of bushfire preparation and bracket the existential threat presented by bushfire; bushfire risk becomes more manageable if Natalie can organise its associated dangers in such a way as to make them negotiable, creating order out of chaos. The discussion of bushfire with her partner organises the bushfire threat, which Natalie further negotiates by making sure that both her and her partner's vehicles have at least a half tank of fuel.

During the course of her interview, Denna realised that her own expectations of the ease at which she would be able to evacuate may have been unrealistic.

**Interviewer:** Do you know what you would do if a bushfire happened nearby?

**Denna:** Mmm...I don't know. I feel like I'd just sort of grab my stuff and go. Other than that, there's no sort of plan that my housemates have, just sort of.... save the house, save our possessions. Because we don't sort of have...actually the way...I was just about to say, I could probably get in my car and just drive away, but at the corner of my street, there's actually bush here as well.

**Interviewer:** So, you might be blocked in?

**Denna:** If I was blocked in, because it's a no-through road as well, I don't know what I would do in that scenario!

Like other research participants, Denna had no clear 'plan' of action regarding what to do in the event of a bushfire. Denna assumed she would simply leave during a fire and seek shelter at her sister's residence, but she lived only a kilometre away and could conceivably be similarly threatened by the same hypothetical fire event. When I asked Denna directly what she would do if a bushfire were to occur nearby, Denna was required to discursively consider the problem, and concluded that her location in a one-way street cloistered by bush was in fact particularly vulnerable.

Grace and Peter elaborated on what it would take for them to create a fire-plan:

**Interviewer:** So, you mentioned you have no fire-plan or anything, and there's no defences here, like sprinklers or anything. What, I guess, would it take for you to think about making a written fire-plan or something? Like, is that something you would consider, or...?

**Peter:** For us, it would be more permanence that we were here. If we were, especially now that we've got him [motions to child], it's something we'd put more effort in to, whereas if it were just the two of us, it's easier to take that personal responsibility with each other and just go. But with a small child, it's...you'd have to take a lot more into consideration in that regard. And it would also be more if this were our home, rather than just where we're living.

**Grace:** Yeah. This is sort of a shell that contains our stuff. But it's not our home. If it was our home, and it was more than a place where we keep our stuff, then we'd definitely have more in place.

Grace and Peter identified the non-permanence of their residence as a primary factor for their lack of fire-plan. As renters, Grace and Peter describe their current residence not as a home, but as merely a 'shell that contains our stuff'. Grace and Peter's experience in a rental property indicate the difficulty they have in considering their current house a home, therefore going some way to explaining their trepidation and reluctance to create a fire-plan. In this case the term 'fire-plan' appeared to carry some definite connotation with staying and defending the



property against bushfire. Grace and Peter could still have conceivably created a fire-plan that illustrated the conditions under which they would evacuate their premises and the steps they would take to do so, however their conception of 'fire-plan' appeared to be closely linked with home defence, rather than home evacuation.

The recent addition of their child to their family appeared to be a counter-influencing factor to this decision. As a new parent, Peter identified his child as a consideration towards creating a fire-plan, citing the requirement for a more formalised system of rules in place. Despite this counter-influence, Grace and Peter erred towards less formalised means of bushfire hazard mitigation. They decided that the formulation of a fire-plan would be predicated on the family's permanence in their residence (a permanence which they currently did not have), rather than the increased responsibility for a dependent member of the family.

The possibility of evacuation, therefore, existed in the minds of many participants as a mechanism through which bushfire risk could be successfully bracketed. The possibility of evacuation was seen mostly as an ever-present option; should all other options be exhausted, a resident could simply leave their property and seek shelter elsewhere. By believing that the option to evacuate was always possible, and maintaining that option through a variety of behaviours, bracketing of bushfire risk was achieved and ontological security within the fire-prone area was successfully maintained.

### **6.3.3: Belief in the efficacy and timeliness of warning systems**

While the ever-present option to leave appears to have been a critical factor in the ability to existentially bracket bushfire-risk and maintain residence in an area that could be threatened by bushfires, this option was itself reliant on the belief that warning systems would be in place to tell participants *when* they would need to evacuate. Participants generally described that

leaving early in the event of a bushfire would be the safest option but did not appear to have any personal mechanism through which to identify what exactly constituted 'early'.

Participants expressed that they were reliant on instructions to tell them when to leave. These instructions, as well as other warnings and general information were gathered through several mediums; most often via radio warnings, as well as through the CFA FireReady app (now titled VicEmergency app), available for smartphones:

**Interviewer:** Do you, I guess, do you know where to access information about bushfires or fire safety or anything?

**Megan:** Um, I have the CFA app. That told me a bit when all the fires were happening in Yarra Glen. Was that Black Saturday or something, was that in Yarra Glen? Yeah, when that was happening, I downloaded the app because my cousins' house was involved.

**Interviewer:** Where do you get most of your information about bushfires?

**Gwen:** I have the app, the CFA or emergency services app, that usually keeps me really...yeah...in fact, it helped me the other night because there was a fire across the road from us, and if it wasn't for the app, I wouldn't have known, so yeah.

**Interviewer:** On like, high fire days, do you have the radio going or anything?

**Rick:** Because I work for a company where, you know, I need to be high alert and on the watch, then I'm pretty well in the know, you know? Even to the point where you've got the fire app on here [lifts smartphone] and you're watching. Those things are good, I think that's great. So yeah, that's another step towards helping people out, isn't it? If there's a fire, then, you know just to check on that app and it says 'Hey', gives you the size of the fire, how many trucks are attending, you know?

Digital technologies were described as a particularly useful way of remaining apprised of fire risks in the area. The CFA FireReady app that the participants referred to was a valuable tool that was generally felt to be reliable and capable of communicating emergency information.

Traditional broadcast systems were also valuable for early warning and risk detection. Natalie described how she and her partner would access the ABC (Australian Broadcast Company) news during periods of fire danger:

**Interviewer:** So how much responsibility do you think the government or experts, or someone has in keeping you up to date with risk?

**Natalie:** Yeah...people would say that it falls on them, but really it would, to me, it falls on ourselves. Just simple things; if it's windy, keep an extra eye out. Like, often we're sitting in our house watching DVDs with the blinds shut. And sometimes I'll look at my partner and go 'This is really stupid, this is a high fire danger day, and we don't even have the blinds open to see if there's smoke or firemen going past, or people waving at us, you know, from the street.' We've got absolutely no awareness. And also, if we're watching a DVD, we're not getting, like, news flash updates along the bottom of the channels. So, every now and again we'll say, 'Let's turn that off and put the ABC on,' or some stuff like that.

In this excerpt, Natalie described a feeling of vulnerability she experienced through being disconnected from any channel which could provide her with warnings about fire events to her home. By watching DVDs in her home with the blinds shut, Natalie was disconnected from both televised warnings, as well as from environmental cues such as smoke or the activity of emergency services personnel. Natalie and her partner regulated this vulnerability by intermittently switching from their DVD to the ABC channel, in an attempt to 'scan' for threats in their general environment.

While there was a belief that warnings should be timely and effective, Natalie was of the perspective that the ultimate responsibility for remaining appraised of risk was in her hands. Natalie self-governed and self-regulated some of her behaviours in alignment with risk communications, at least to the point where she ensured that she could at least receive those communications. Being in a position to receive risk information, as well as being able to perform actions which would mitigate risk were her responsibility, and Natalie attempted to govern herself in-line with this perspective.

Bianca also relied on risk communications so that she could govern her behaviours accordingly, but emphasised the responsibility of government for that information to be timely and effective:

**Bianca:** I'd like to think that there'd be good notifications come out, in as much of a timely manner as you can. I mean, we listen to 3LO, yeah, during those really high fire danger periods. I would say we're tuned into stations that should alert us. We do keep an eye on the fire app occasionally, but more so the radio. So, I would anticipate having reasonable enough warning that there's a fire broken out wherever, alright, then I'll monitor the situation more closely.

Bianca stated that she would 'anticipate having reasonable enough warning' in the event of a fire so that she would be able to monitor the situation more closely, and in turn, make the appropriate decision about when to leave her home. If a fire were to occur, Bianca expected that she would be appraised of it in a timely manner and, and thus be able to decide whether to stay or evacuate her premises. Her ability to make this decision and align with proper self-protection expectations was contingent on effective risk communication; Bianca could only do the things she 'ought' to do to mitigate her risk if those risks were communicated effectively and on-time.

### 6.3.4: Preparatory or maintenance tasks as a barrier against fire risk

Performance of preparatory tasks for fire events also appeared to be evidence of a level of practical consciousness in participants. Participants often performed basic tasks around the home such as gardening, clearing of gutters, maintenance of a fire preparedness kit, or other home maintenance. Though the primary objective of these tasks was not always mitigation of fire risks, participants cited these tasks as having the advantage of mitigating their exposure to bushfire risk. Participants still, for the most part, planned to evacuate their homes in the event of a fire, and were not always clear about where they would go or how they would get there, but the knowledge that they had performed basic home maintenance tasks appeared to equate to a greater level of security against bushfire risks, both physically and existentially.

Kara used maintenance tasks as a barrier against fire risk:

**Interviewer:** Do you feel like Kangaroo Flat is a risky area, where a bushfire could happen?

**Kara:** I don't feel unsafe, no. But not far from us, at Lockwood, there's a fair bit of bush. There's a lot of bush Big Hill side. So, it probably is a high-risk area to the CFA. To me, I never feel unsafe. Because we don't have a lot of trees, as I said. The creeks got a bit of undergrowth, but they keep that, we keep that down. We keep all the grass down at the back. So, we make sure our property, and the two each side of us, Hector mows that with the ride-on mower at the back, he keeps that tidy. So, I don't feel at risk, no.

Though Kara described living proximate to areas of high fuel load in both Lockwood and Big Hill, her feelings of vulnerability were managed by the maintenance she and her family performed around the home. She mentioned that there were few trees around her home; while the undergrowth around the nearby creek and around the back of her property was kept under control by a neighbour. These maintenance tasks appeared to provide an assurance against the existential threats provided by bushfire risk; while they may (or may not) have been *practically* effective at reducing exposure to bushfire risk, the maintenance of the area was *symbolically*

effective, demonstrating the family's ability to exercise control over the spatial boundaries of the home and remove objects which were thought to be hazardous.

Rick believed that maintenance around the home was useful for mitigating bushfire risk:

**Interviewer:** Do you have any preparations or plans or anything that you might put into effect if a bushfire happens?

**Rick:** Yeah, I mean obviously you, you know, try and maintain your own vegetation around the property, keep it clear and clean. Outside of that, I haven't planned really...I think the plan is based on where the fire is, which direction it's coming from, what's the risk to you at your house, and where and when.... you know, be alert, be ready to make an action as to where it's coming from. You know, we had a fire...I think, eighteen months, two years ago off Shoemakers Lane. We had one twelve months ago that was just off the Calder down here at...through that Ironbark area, through Eaglehawk there. They've been around. Fortunately, the gods have looked after this area, that's probably the best way to say it.

**Interviewer:** Are you that concerned about the thought of a bushfire, versus other anxieties instead? So, are there other threats instead that are more worrisome?

**Rick:** Not really, no. I don't get overly anxious about bushfire, but I think you have to be aware of it. You have to be, you just have to accept and realise that there is the potential for bushfire, and as I've said, you know, Australia doesn't get a lot of rainfall. So yeah, look, I think there's always the potential for it. The key is to be prepared, and how you are prepared, and how much you want to be prepared is going to be the determining factor between whether or not you cope, or don't cope. But I don't let it stop me from doing anything. And if it's a total fire-ban, then no fire. So, the barbecue is off.

Rick performed maintenance of vegetation around his property, with no other fortifications or evacuation plans. Rick envisioned his evacuation plan to be dependent on the direction a hypothetical fire would come from and felt that he could make decisions and navigate his way

to safety in the event of a fire without the necessity of a fire plan. The combination of his vegetation maintenance, and personal confidence in his ability to navigate a fire situation qualified Rick, in his own words, as being prepared for a fire situation, and being able to survive should such a situation take place.

Rick embraced one type of preparatory task (vegetation maintenance), while rejecting another type (fire evacuation planning). While home vegetation maintenance may be a nominal household task in both fire prone and non-fire prone areas, the establishment of a fire-plan is a direct response to a perceived risk. Vegetation maintenance is useful regardless of whether bushfire risk is present, however formalised fire-planning implies that there would be a necessity for such a thing to exist.

Rather than establish a formalised fire-plan, Rick instead suggested that he could evaluate fire danger and respond accordingly in the event of an actual fire with minimal planning, underscored by the security provided by his home vegetation maintenance, and his belief in his own personal capacity to cope with a fire. If Rick does not align with the classification that he is at-risk from bushfire or believes that his other preparations or qualities will allow him to address that risk, then there may be little requirement for him to engage with formalised fire-planning. Rick, therefore, felt he had practical means of coping with fire risk, therefore precluding the need for discursive planning of the minutiae of potential bushfire scenarios.

Similar to Rick, Gwen used home maintenance as a means to bracket fire danger:

**Interviewer:** Do you take any preparations for bushfires?

**Gwen:** I only do the usual things; make sure the gutters are clear, and make sure my area is clear of leaf litter. I do have some old trees around that do drop, so I am conscientious enough to pick that up. But that's essentially all I've got. I haven't set up any kind of fire evacuation plan other than I know what I'll take and go with. That's about it, really.

**Interviewer:** You said you clear up around your area; do your neighbours do the same thing?

**Gwen:** Some do, some don't.

**Interviewer:** How does that feel?

**Gwen:** A bit irritating, actually, because it's my neighbour next door. So, we've actually decided, my son and I, that we'll take control of the front of their area, so we'll let them address the back area of their property, but we do try to look after the front area of their property while we are doing our own.

Gwen not only made efforts to keep her own area free of hazardous litter material, but also to ensure that her neighbour's area is kept free of litter too. The hazards associated with stray litter extended beyond the spatial boundaries of her own property, with the litter in her neighbour's area presenting as much danger to her home as her own litter. Conventionally, Gwen expected her neighbours to pick up their own litter; a task for which both parties would ostensibly benefit. When they failed to meet that convention, Gwen was required to exercise additional agency over the area, and clean both areas to enjoy the same sense of security.

Adam cited his emergency bushfire kit as a tool which helped provide mental order to feelings of bushfire vulnerability:

**Interviewer:** Do you take any preparations for bushfires?

**Adam:** I've got an emergency bushfire kit. I felt a bit weird doing it, but I thought, best to be prepared. I might not ever need it, but I think in the event that I had to get out, I've already kind of like, in my mind, sorted what I would need to do, if I needed to evacuate. So, I suppose having that emergency kit in place, it's just one less thing I would have to worry about. Be a case of grab...and I've got it on the bottom shelf of a cupboard...grab it, grab the dog, grab one or two other bits and pieces and get out of there.



Adam's emergency bushfire kit contained water, a torch, overnight essentials and toiletries, supplies for his dog, copies of his necessary papers, a spare phone charger and a wool blanket and other goods that he described as 'essential'. Critically, Adam admits that he felt 'a bit weird' assembling his kit; indeed, his view was that this style of emergency planning ran counter to his own views of what might be culturally, socially or conventionally normal, yet he reasoned that the kit (a relatively invisible protection) would be valuable. The kit enabled Adam to cognitively organise and imagine the steps he would take should his home come under threat of bushfire, and in doing so, made bushfire risk more tolerable.

Despite creating and implementing strategies to address fire risk, neither Gwen nor Adam had a fire evacuation 'plan' in place. Although both stated that they would leave their premises in the event of a fire, their plans consisted of what they would take with them, and not when to leave or where to go. Both could illustrate the parts of bushfire risk that were concerning to themselves and developed solutions to those risks, and the practical strategies they implemented were valuable for ontologically securing themselves against bushfire risk.

### **6.3.5: Insurance policies and suggestions that bushfires could be a positive occurrence**

Insurance policies also appeared to be important for containing insecurities associated with bushfire risks. Participants in the study used insurance policies as a means to reduce the potential impact of a bushfire on their homes and lives, further bracketing the dangers associated with life in a bushfire prone area:

**Interviewer:** Are there ever times, mainly in summer, where you feel you might not be able to do things you otherwise could do, because of the risk of fire?

**Adam:** No, not really.

**Interviewer:** Nothing like going away on a holiday, or anything...leaving your house unattended?

**Adam:** No, not really. I mean, like everything...you mean like leaving the house unattended?

**Interviewer:** Yeah, like, if you wanted to away for a week...

**Adam:** Not really, no. I don't think 'Aw, I better stick around.' Look, I'm not in love with the heat, so I'm happy to stay at home. But if I happen to be in Melbourne, away for the day, I suppose I give thought to the fact that I might not be here in the event that there's a bushfire, but if there is, there is. What do you do? I've got insurance, so it would cover me losing everything. But it wouldn't be the same, because I lose the things that I'm sentimental about, if you like. But, can't take it all with me. Chances are, nothing will happen. If something happens, something happens. Yeah, that's...so no, not really, no.

Without home-insurance, Adam may have been more concerned with losing his possessions, yet the provision of a home-insurance policy allowed him freedom of movement, untethered to his residence and his possessions. Adam admitted he would mourn the loss of items which were of sentimental value, and as such were irreplaceable by insurance, but the idea was tempered by the fact that the remainder of his possessions could be easily replaced.

Further, Adam stated that 'Chances are, nothing will happen.' This statement, when paired alongside his insurance policy, suggests Adam's confidence in his choices of action; he has wagered on both the unlikelihood of a bushfire occurring, and financial insulation from its negative effects if it does. The combination of his belief that a bushfire was unlikely, his self-assembled bushfire-preparedness kit, and the provision of his insurance policy for the case where something *does* happen, allowed Adam to successfully manage bushfire risk to the point where further routine changes (such as fire-planning) were unnecessary.

Kara also elaborated on her insurance policy:

**Interviewer:** Broadly speaking, how much would you say you know about bushfires? As generally as you want...

**Kara:** Not a great deal. I was brought up on a farm, so we saw quite a lot of fires, floods and all that stuff, but we've never been...we have been close to one once, but never been...our house was burned down when I was only six. That wasn't a bushfire, that was just a house fire. But no, I don't.... I have enough nous to know that I'm not gonna stay, not gonna stay and defend. I'll just grab whatever I have to grab and go. And if I don't get a chance to grab, I'll go. Because we're all insured and I figure life is more important than worrying about your, your material stuff. We're prepared to go, we're not going to stay and fight. We have that plan, if nothing else.

Kara expressed minimal concern for her material possessions. As they were both less valuable than her life, and insured for replacement, the destructive impact of a bushfire on Kara's life was minimised by the belief that most of her important material possessions could be replaced. Kara admitted that she would try to take as many things with her as permissible and would even perhaps try to get her caravan out, but ultimately decided that leaving was the highest priority. Insurance functioned to compensate for the loss of material goods, but would not be able to compensate for loss of life.

Rather than feeling threatened physically by a bushfire, Megan identified a bushfire as a potentially positive impact in her life:

**Interviewer:** So, you don't think it [bushfire] would be that likely to happen, and if it did happen, you...

**Megan:** Wouldn't bother me, I'd just leave the house and get a new one [laughs]. I'd be like 'Please burn it down so then when I rebuild, I get a brand new one.' [laughs]

....

**Interviewer:** Do you guys have, like, a fire-plan or anything?

**Megan:** No, just leave. Like I said, if it got burned down it would probably be a good thing [laughs]. 'Cos our insurance would cover it so we could rebuild.

Like the previous cases, insurance policy acted as a means to mentally address worries associated with an event such as a bushfire. However, instead of identifying a bushfire as a potentially destructive force, Megan viewed it as a potentially positive windfall that might allow her to rebuild her home to a higher standard than the one she currently had. Megan's home was several decades old, and she expressed almost eagerness at the thought of it burning down, so that she would be able to build a 'brand new one'.

Insurance policies, a feature of late modernity, have no doubt assisted in making the decision to leave the home in the event of a fire an easier choice for many. Before the widespread prevalence of home and contents insurance policies such a decision may have only been a last resort, with entire livelihoods hinging on how well a person could defend their home from a fire. For the participants in this study, insurance granted a provision of freedom and mobility, untethering them from the home.

#### **6.3.6: Security in the existence of knowledge not actually possessed**

The most compelling evidence of the use of practical consciousness in navigating bushfire risks appeared to be participant's reliance on the *existence* of knowledge, without actually being in possession of, or necessarily understanding that knowledge itself. During interviews, participants were asked if they had a fire-plan in place, or what to do if a bushfire were to take place. With most answering that they did not have a fire-plan (only 1 participant answered in the affirmative), participants were then asked if they would be able to find out what they should do, if required. Even if residents along the urban-rural interface did not themselves possess the knowledge required to effectively plan or prepare for bushfires, they held the expectation that such knowledge did exist somewhere, and if required, such knowledge could conceivably be located and implemented with little difficulty:

**Interviewer:** So, do you know where you would access information about fire safety, if you had to?

**Craig:** I'd say...I would hope that the government or the CFA has a website dedicated to like, making a fire plan or something along those lines. But I suppose I wouldn't know where exactly, I'd just assume the CFA or government websites, hopefully.

**Interviewer:** And you could find it if you needed to?

**Craig:** Yeah, exactly, yeah.

**Interviewer:** So how much responsibility do you think the government, or experts, or someone has in keeping you aware of the risk [of bushfires]?

**Britney:** I suppose there is a slight amount of knowledge that people are provided, but it's more you'd have to go out looking for it, I suppose, and be aware there's outlets such as text message and alerts where you'd sort of have to go out and actively find it, rather than it's just sort of in your face and you're made aware of it constantly.

**Interviewer:** Do you guys know where to access information about fire safety?

**Peter:** They usually have a lot of information about it in the Nillumbik sort-of-newsletter that comes out every couple of months, and particularly as it gets closer to summer, they'll have pages of information about bushfires and where to get more information, making plans and things.

**Interviewer:** Do you know where to access information about fire safety, if you had to?

**Denna:** The CFA website? I've liked the CFA website on Facebook since 2008, they were doing all those updates, and that's probably the last I've seen of it. So, I'd probably go on the CFA website.

Critically, a sense of ontological security may have been predicated on a belief in the existence, accessibility and effectiveness of knowledge that would reduce vulnerability to bushfire risks or mitigate threats, even if participants were not currently in possession of such knowledge. Similar to how trust in experts to interpret constantly shifting meteorological data and produce advice in real-time provided some level of ontological protection to bushfire anxieties (*Section 7.2.1*, below), participants took comfort in believing that there was also an epistemological solution to bushfire risk which would tell them how to evacuate or how to prepare their homes for a fire that could be accessed at any time, even if they had never done so before and likely would never need to.

It appeared that participants who had no fire-plan also had no perceivable use for one; they often did not necessarily agree that they lived in a bushfire-prone area, had no occasion to use a fire-plan before, and were thus comforted in merely knowing that they *could* make one, rather than comforted by actually *having* one. Participants were not necessarily averse to the idea of developing or implementing a fire-plan, but as they did not necessarily believe they were at risk from bushfires and generally did not feel by fire, they were instead secure enough just understanding that the knowledge about fire-planning existed and that they could locate it if they had to, rather than feeling secure in the knowledge that they did have one and might need to use it.

## **6.4: Chapter conclusions**

The data indicates that participants traversed daily routines, which while not always similar from one day to the next, did afford a sense of predictability and reliability. Practical consciousness ordered many of the chaotic threats that the idea of bushfire risk presented, and participants expressed being able to draw upon a variety of sources to help stabilise and secure themselves against existential risks associated with bushfire.

Critically, it appears that many of the justifications for proposed responses to bushfire risk were based off of tacit knowledge —a source of knowledge drawn upon without questioning its foundation. This knowledge was found in plans to self-evacuate, despite participants generally having no clear destination for evacuation in mind, as well as through belief in the efficacy and timeliness of warning systems, home maintenance tasks as a means to further reduce exposure to bushfire risks, and the provision of insurance policies, which compartmentalised any material losses and allowed participants freedom and mobility from the home. Even if participants did not possess knowledge about how to best mitigate their exposure to bushfire risks, they were secured by the idea that such knowledge existed, and that they could acquire, understand and implement that knowledge, should the need arise.

In the next chapter, analysis of ontological security structures continues, examining the trust structures and insecurities of study participants.

# **Chapter 7: Trust Structures and Insecurities in Urban-Rural Interface Residents**

## **7.1: Introduction**

Continuing from the previous chapter, this chapter also addresses the second research question of the thesis: *How do residents in bushfire-prone areas along the urban-rural interface construct and protect their sense of ontological security?*

Participants relied upon a variety of trust structures to securitise them against bushfire risks. Within the sample, participants described accessing expert advice to interpret and communicate risk, as well as reliance on governmental bodies who they felt were in control of resources to perform necessary tasks which would mitigate their exposure to risk. Participants also described a trust they had in various technologies which could aid them in detecting any threats to the home.

Further, instances in which participants expressed what can be interpreted as *ontological insecurity* regarding their residence on the URI are also presented. Insecuritising elements involved descriptions of the surrounding bushland as being a potential and unpredictable source of danger, of other individuals in the social sphere who defied conventions and disrupted predictability and order, as well as challenges from other events which were perceived as random, chaotic and unforeseeable.

## **7.2: Trust structures in a bushfire-prone environment**

Participants in the study held a number of trust structures, which they used to help them ascertain levels of certainty and predictability in their general environments. Initially, the degrees to which participants relied upon or trusted in experts to interpret and address risk were explored, with participants generally agreeing that experts and authorities had *some*



responsibility to the householder but were often in disagreement as to precisely what that responsibility was.

A second discourse around trust which also emerged was the trust and reliance participants expressed in their use of tools and technologies. Building from a trust in experts, participants also relied upon tools and technologies which would allow them to access expert knowledge and advice so that they could appraise the landscape and detect threats from the environment. Through the use of these tools and technologies, participants felt that they would have the ability to make effective decisions, should a bushfire occur.

### **7.2.1: Trust and confidence in experts**

Participant trust and confidence in experts to both interpret risk and perform risk mitigation duties beyond those capable by the householder emerged in the interview data. As Beck (1992b) states, modern day hazards differ greatly from the pre-industrial world; risks may often be highly technological in nature and require expert knowledge to interpret and address. Bushfire risk, whilst not necessarily a product of the post-industrial era, has become exacerbated by modern factors such as technology (2010), climate change (Hughes, L & Fenwick 2015), and the decline of communal bushfire knowledge due to changing amenity-led migration patterns (Eriksen & Gill 2010). Due to these three factors, the role of expert knowledge in appraising bushfire risk, and passing on risk assessments in a digestible and actionable fashion to the remainder of the population continues to be of paramount importance and will only become more important as these factors become invariably more complex.

Trust and confidence in experts to interpret risk appeared to be both a securitising *and* insecuritying force. Most participants felt that it was the place of experts and government to interpret risk and appraise them of hazards, and for those who felt that experts generally did a good job of such, then trust was a securitising force, reinforcing ontological security. For

participants who felt that experts and government did not do a good job of appraising them of hazards or otherwise misinterpreted the risks involved, such trust was securitising, undermining ontological security. Giddens describes this as a feature of ontological insecurity in late modernity, where even the most reliable authorities can only be trusted 'until further notice' (1991, p. 83).

Rick, for example, was generally positive about risk communication from government and experts, but had difficulty trusting in infrastructure and resource management:

**Interviewer:** How much responsibility do you think the government, or experts, or the CFA, or someone has in keeping you apprised...?

**Rick:** I think radio's a good thing. I think there should be...there should be notification out there, I think people need to know when fire restrictions are in place. I think they need to know when there's high risk days, you know? News is very good at it, the radios are very good at it. I'm not so sure that the government does everything it should. I think that, you know, I think to fight fire, you need water, depending on obviously...bushfires, you need water. That's the facts of it. I think that sometimes our reserves, for our water supply, is let go to a very...not a good level. And I'm not sure how they call on those resources if they haven't got them, you know?

**Interviewer:** So, there should be...more...water restrictions?

**Rick:** I'm not saying more water restrictions, but I think we should be able...we should have the infrastructure in place to hold a lot more water in our reserves. A greater amount. They've got the capabilities to move gas and all these other resources throughout the country. Why can't they do the same thing with water, you know? We only heard on the news last night, if you watched, which I'm hoping you did, you would have seen they've actually set up Melbourne's water supply, and they're saying, 'Oh we've got too much water!' You don't have too much water. That, you know, because they've started up a desalination plant, did you see that?

**Interviewer:** Yeah, I've heard about the desalination plant.

**Rick:** So, if that's what we need, it's desalination plants to put water supply there, to be able to accommodate, then that's what should happen.

For Rick, water was the most essential resource in fighting fires, and experience in his own fire risk area led him to believe that the primary resource used to fight bushfires was being mismanaged. Rick was concerned that the current infrastructure to hold greater amounts of water in reserve was insufficient to the task, and that construction of additional desalination plants should be prioritised, which would provide more of the resource required to address bushfire risk.

Most participants agreed that the role of experts was not necessarily to solve the problem of bushfires in such a way that bushfires would not occur near their homes, but rather that government and experts should instead empower residents in bushfire prone areas to become more resilient and provide them with the tools they needed to survive. Perspectives diverged, however, when it came to the level of responsibility experts might have in warning populations of fire risks:

**Interviewer:** So how much responsibility do you think the government, or experts, or someone has in keeping you up to date with fire risk?

**Rowan:** Um, up to date on fire risk probably isn't their priority and I don't think it should be. I feel like more giving you the tools and ideas and knowledge, maybe just through, whether that's through marketing campaigns, social marketing campaigns and knowing what to do if there was a risk, rather than probably say...specifically targeting Flora Hill and saying 'Because Flora Hill is a higher risk area because of this, this and this.' I think it's more in general, saying it's up to you to protect your home, up to you to make your decisions, and this is what we'd recommend you put in place.

**Interviewer:** Do you get information about bushfires from anywhere?

**Rowan:** Not currently. Oh...no, not currently.

Rowan felt that the role and responsibility of experts was not to protect individual homes or suburbs, but rather to interpret bushfire risk and provide salient advice that could be applied generally. Rowan did not express any particular requirements from experts in order to feel certainty in his general environment beyond being reasonably equipped to make his own decisions.

Perhaps because he did not feel he was at-risk from bushfires, Rowan could not recall having received or accessed information about bushfire risks. Rowan did not need to be told that risks are more or less present in one area over another, but instead determined a preference for tools, ideas and knowledge, which could lead him to build his own assessments of bushfire risk.

Jackson expressed that he felt the government had a great amount of responsibility in distributing advice:

**Interviewer:** How much, I guess, responsibility do you think the government, or experts, or someone has when it comes to protecting your home or keeping you informed?

**Jackson:** I think governments should have a big responsibility. That's my personal opinion. Of course, at the end of the day it depends on the individuals, but I think the government, local government should have big responsibility. Because we as the citizen, we pay tax, and I think they should try to warn us, because they have all the information. Well, we do have the information, but they also have more information. They can appoint someone to sort of facilitate or monitor these things.

For Jackson, the requirement for government, and local government, to keep him appraised of fire danger takes the form of a contractual, insurantal exchange between himself and the state. Jackson specifically mentions taxation; as he pays income tax, he is entitled to protections from the state, of which one is being provided with risk information so that he can

make appropriate choices. Jackson also stresses that unlike his own partial knowledge of bushfire risk, 'they have *more* information', and that they (the government) have the capacity and requirement to employ someone who will ensure the risk is monitored and communicated.

Participants relied upon experts not only to provide them with appropriate warning signals and best-action advice, but also for them to take charge of areas which presented heightened levels of bushfire risk but were beyond the capacity of the individual homeowner to maintain. These areas were generally public lands, which participants felt were not their own responsibility to maintain, and for which they did not have the authority to do so, or that the areas were so large that they would not have the resources to maintain the lands themselves.

Jackson felt secure that his local council managed dangerous areas:

**Interviewer:** So, you were surprised to learn that [the site Jackson had intended to build a house on] was a higher risk area?

**Jackson:** Yeah. But one thing that really helped me, to calm me down is that the area, um, will be regularly maintained by the council. So that means that, it's good in a way, that it's being maintained, so I don't have to worry about the bush area.

**Interviewer:** And they're good at keeping that maintained?

**Jackson:** Correct. They have people come and clean almost every month.

Gwen believed that responsibilities for addressing hazards were split between people responsible for maintenance of public lands and individual householders, although experts were required to disseminate information about risks:

**Interviewer:** How much, I guess, responsibility do you think the government or experts, or someone has when it comes to protecting your home, or keeping you aware of risk?

**Gwen:** Keeping us aware of risks are a great, great responsibility. I think they're the people that have direct access to the Bureau of Meteorology and with fire-danger forecasts and things like that; from that point of view, yes, they're responsible for that. From a person...from

responsibility for my area...let me see. I would expect them to do the basic maintenance that they're supposed to do, keep grass slashed that's on Crown land or public land. But we're responsible for our own properties, essentially. So, I don't lay the blame solely at anybody when these things happen; it's an act of nature.

Megan experienced conflicting feelings regarding her local council's capacity to address nearby hazards:

**Interviewer:** Do you think experts or the government or someone has a level of responsibility in keeping you aware of the risk to your home?

**Megan:** Yes.

**Interviewer:** How much, what level do you think that is?

**Megan:** We got a...in October last year, we got a letter from the council last year, saying that we needed to clear out our gutters and everything, but I got frustrated at them because they're in charge of that track and that was really overgrown, so I had to make a few phone calls to the council to get that, just for snakes and stuff as well. So, informing us, so far, they've been pretty good, but what they're doing is not much, in my opinion.

Gwen and Megan have divergent opinions on the efforts of their local councils in keeping bushfire risk managed. Gwen's capacity to feel certain in her environment was predicated on being kept aware of risks by higher authorities. Gwen, who admitted to being anxious about bushfires, and utilised mobile applications to receive fire advice, felt that experts had 'direct access' to the Bureau of Meteorology, and could presumably interpret scientific data in such a way as to then distribute timely and accurate advice surrounding bushfire weather, something she could not do herself. Gwen also expressed that maintenance tasks on fire risk areas were essential to her feelings of security; however, these tasks were the responsibility of both the householder, and the council, who were unified in opposition against these 'acts of nature'.

Megan, however, felt that her local council was not appropriately managing the 'track', an area of bushland close to her property with a walking track connecting it to the residential area. Megan expressed a perceived hypocrisy between what the council expected of residents, and what the council were themselves doing to maintain security of fuel loads. By asking Megan to remove the leaves from her own gutters, yet failing, in Megan's view, to exercise a similar level of diligence and control over their own domains (by letting the 'track' become overgrown), the legitimacy of the council's position as an authority is effectively undermined.

Chelsea expressed her frustrations surrounding her own neighbourhood experiences with home maintenance and other people in the neighbourhood:

**Interviewer:** What sort of expectations do you have for people during fire season? Do you reckon that's realistic, do people actually do what they should do during fire season?

**Chelsea:** I remember as kids, like, everyone used to keep their gutters and the guttering along the streets and that clean. Like, I know now you seem to think it's the council's job. But like with that big rain we had the other day, our gutters just clogged with the leaves, and the gum trees and that out the front. And yeah, so you get out and you rake it up, you don't ring the council, you know? I think a lot of it is your responsibility. That's just a bit of...just house...not housework, just looking after your property.

**Interviewer:** And do you think people do that?

**Chelsea:** I don't think people do that, no. Not as much as they used to. I know they stopped, like we would, we lived on the main highway, opposite Lake Weeroona as kids, and we used to always rake up. We had the elm trees and that along there. We would rake up and the gutters were quite deep, and my dad would light fires along the highway there. But now you're not allowed to do that. They weren't never gonna get away from you, they were just your leaves, and you got rid of your leaves and cleaned your gutters out. Now you have to ring the council. I just sort of, I don't know, I think we looked after our houses better then, than what we do now. I get out and rake the gutters out the front, and on an acre that's a fair gutter. But yeah, you just sort of think, and I used to light them...but now you're not allowed.

**Interviewer:** And people have to call the council now, because they may be a bit more lazy about it?

**Chelsea:** Yeah. And they just think ‘the council can do that, we pay our rates’, and everyone’s got a reason for thinking ‘Well yeah, it’s the council’s job.’ Well yeah, it is, but gee...surely you could rake the leaves out of your gutter. That would make it easier for everyone.

Chelsea believed the community in her area over-relied on the local council to perform relatively routine maintenance tasks. Chelsea believed that people would foist the burden of responsibility for area maintenance on to the council, reasoning that since they pay their rates, the council must perform adequate area maintenance. While this was similar to Jackson’s idea that his income tax should provide him with effective risk management and communication, Chelsea viewed her neighbours as expecting risk management as a service, rather than insurance. Further, Chelsea lamented that such efforts were wasted anyway if her neighbours were unwilling to take initiative and maintain their own properties. Though Chelsea agreed that it is the council’s job to perform area maintenance, she believed that mitigating fire danger was ultimately a social good, and thus area maintenance should be everybody’s responsibility.

Most participants were of the view that experts and higher authorities should primarily be concerned with interpreting and distributing relevant warning and planning information, as well as performing area maintenance beyond their own capacity, yet an understanding of the audience for whom this information was intended was not always immediately clear.

Rebecca, who had only lived in the area for 11 months, reflected on the difficulties she had in associating with and interpreting the advice she was provided with:

**Interviewer:** How much responsibility do you think the government, or experts, or someone has in keeping you aware and keeping you up to date of what to do in that situation [bushfires]?

**Rebecca:** I would expect high responsibility, because especially with people like us, where we’ve only just moved in the area, and we don’t quite know what’s happening, that it’s really



hard for us to form an emergency plan...I know they advertise that all the time but I'm not really sure what it means.

**Interviewer:** So, you're really reliant on the...

**Rebecca:** Yes. Like media alerts and things.

**Interviewer:** Do you ever get any information about bushfires? Like, a pamphlet, or do you see it on the news or something?

**Rebecca:** On TV, there is the ad currently going, that you need to have a plan, but as I said, I'm not really sure what that means [laughs]. And I understand that they're talking more about rural areas, with like tank water and things like that, so I don't really know what's meant for us.

Rebecca was uncertain about how to interpret and use bushfire knowledge. She admitted that she was reliant on experts to interpret risk for her but confessed that this interpretation could be difficult for her to follow, and that she remained unsure about what to do to prepare for bushfire. With little prior experience to draw upon, it was difficult for Rebecca to form an emergency plan, and with few social connections, Rebecca could not draw upon conventional wisdoms or enlist the help of others to order bushfire risks. Rebecca identified herself as part of a larger population of newer residents to the URI area, and thus expected that experts would be both cognisant of their existence and sensitive to the factors which made them vulnerable, so that they could be better protected.

Rebecca was uncertain if she was the intended recipient of risk communication; she assumed that the bushfire risk communications she saw on television were intended for rural properties, and while she believed that bushfire risks may have been present around her residence, it was unclear to her how she should best align with expert advice.

### 7.2.2: Trust in tools

Whilst the participants of this study did not, for the most part, hold the expectation that authorities would come and save their homes in the event of a bushfire, and accepted that the responsibility for the protection of the home lay with the resident, participants did have the expectation that they would be given important situational information relevant to their areas in the event of a fire from which they could base decisions. Most participants performed *some* sort of action to seek certainty and secure themselves ontologically against the existential threat of bushfire, even if there was no accompanying practical securitisation.

Residents interviewed in the study relied heavily on a range of technologies to assist them with keeping up to date with bushfire risk. As noted in *Section 6.3.3*, participants expected that by utilising the CFA FireReady app/VicEmergency app, listening to radio or television broadcasts, or otherwise connecting with some official channel, they would be appraised of any risks to their homes in a timely manner and be able to act accordingly. Being able to take an active role in detecting threats was a source of comfort, with participants using various devices to scan for threats or information about threats:

**Interviewer:** Do you think that the government, or experts, or someone has a responsibility in keeping you aware of these risks, and I guess, what is that level of responsibility that they have?

**Jonathon:** Um, they do have a responsibility to notify us of danger. I think whether it comes to you know, protecting...well that's the owner's decision to make, fight or flight. I think there have been improvements, especially with the CFA app, that wasn't in action during 2009. But in years after that was quite vital for us, during summer, you could set the location and it would give you updates of locations close by and you could also check where fires were taking place on the map. So, I think that was pretty much...the authorities, they can only really do so much, especially because you can't have everyone fighting for one house. The next best thing is to tell everyone to get out of there, so as long as they can tell us to get out, and everything

is working. Previously it didn't really work, the lines weren't open and clear, as long as everyone knows to evacuate, that's all you can really do.

**Interviewer:** Could you tell me more about that application?

**Jonathon:** Um, so, it's basically just the CFA app. You can download it off iTunes or the Android Google Store. It gives you the option of putting in your address, or GPS coordinates and um you can set a radius to, um.... a kind of radius to what kind of updates you want, a certain radius. It'll sort of give you everything, from bushfires, to you know, like a toxic fire at a factory or a car fire, so it's a very handy little app, and whilst we weren't under threat the last couple of years, it was still valuable to have on your phone.

**Interviewer:** Sure, I guess, as like a peace of mind...?

**Jonathon:** Yeah, exactly. So even when I was at work, I was getting updates and checking on it, and communicating with Mum about those notifications as well.

Jonathon described the CFA FireReady app as an important tool in the provision of his ability to feel secure about bushfire risks. While he did not believe the authorities had the capacity to physically protect every single property, Jonathon did anticipate that authorities could use the app for issuing evacuation orders, thus accomplishing the overall goal of minimising loss of life. Jonathon used the app both passively —receiving updates on fires near him— as well as actively —using it to check where fires were taking place on a map. Transparent and readily accessible information was practically useful for remaining apprised of fire danger, yet the application was also symbolically powerful in its ability to connect Jonathon to official risk communications, even during periods when those communications were less relevant to him. Further, Jonathon coordinated the risk messages from the app with his mother, allowing him to transmit relevant warnings and secure other members of his family.

As mentioned in *Section 6.3.3*, participants appeared to have the expectation that by subscribing to various medias, they would be alerted to any dangers to their homes in a timely

fashion. A central premise was that official warnings for danger would always precede the danger itself; it was assumed that a bushfire would not occur proximate to one's home without first receiving some official warning, and so by being subscribed to a service such as the CFA FireReady app, participants would be able to appraise the environment for threats and not be caught unawares. Unfortunately, and as was the case during Black Saturday, the multiplicative effect of extreme bushfire conditions can result in a delay between when fires are detected, when warnings and advice are distributed, and how long that advice will remain relevant. By the time bushfire event specific advice can be distributed, conditions may have changed, and the first inclinations that residents have of bushfires may not be from apps or radio messages, but instead from spatial clues such as smoke and embers.

Since Black Saturday, implementations such as the CFA FireReady app/VicEmergency app have been continually developed to assist with the distribution of timely, relevant advice. The production of such an application is both practically and symbolically important. From a practical perspective, it provides any person with a smartphone in their pocket to scan their general environment for threats and receive crucial, up-to-date information about fire events in their area, assuming that the such information is detected and logged by administrators in charge of the application during fire events. The reliability of the application itself as well as the timeliness and relevance of information it provides is important also from a symbolic perspective and must be critically maintained if users are to continue trusting and using the service.

Unreliable, untimely or irrelevant information, however, damages confidence that the application will be useful when needed in an emergency event, and users will discard the application if it is not seen to be reliable. Natalie, for example, felt that updates to the application had rendered it unreliable:

**Natalie:** We've got the app, but the new app, VicEmergency app...

**Interviewer:** Not very good?

**Natalie:** It's really...bad compared to the old one. The old one was a specific CFA...

**Interviewer:** The FireReady app?

**Natalie:** And that's been replaced by VicEmergency, which covers floods, rains, and it doesn't seem to alert properly. Like I mean we'll see fire trucks go past our house before we even get an alert, whereas with the old CFA app, we would get an alert, and I'd go 'Oh, we'll see four fire trucks coming past soon, because it says that there's a grassfire at Woodend, and there's four appliances'. And sure enough [makes siren sound]. So yeah, I think they've got a bit of work to do, but because of that, we've become more reliant on ourselves.

Natalie expressed concern over the reliability of the updated VicEmergency app; her trust in the efficacy and reliability of the application had fractured. Since the newer VicEmergency app could no longer be relied upon in a critical situation, Natalie discarded the application and sought alternate methods of risk appraisal.

### **7.3: Ontological insecurities**

Participants' generally possessed a robust sense of ontological security capable of holding existential uncertainties at a distance. Despite this, some participants described instances in which they were securitised in their residence in the URI. Such insecurities were often (but not always) a product of living near bushland that provided recreational outlets, contact with nature, but also potential sources of hazard.

Some participants were also securitised by the presence or behaviours of other actors in their community who caused them to feel vulnerable. Warning information itself could be viewed as securitising, in that it suggested to some participants that they may have been vulnerable to bushfire risks. Further, a description of random and chaotic events from one participant is presented, as it illuminates the distinction between bushfire risks, which were

imagined as predictable, structured and orderly, versus other threats which could not be secured against.

### 7.3.1: Feelings of insecurity from bushland

Proximity to bushland was generally described by participants in terms of positive associations surrounding nature, wildlife and space. Participants commented on the space afforded to them by the area, permitting activities such as running and sports, particularly by participants who had children:

**Interviewer:** Do you like the area?

**Jackson:** The area? I like it because it's a preserve area, like the bushland at the back, so I... I can go anytime for a run, a walk, jog, jogging. And also, quite close to sport area, the soccer field at the back, and very close to cricket ground, footy ground, and also tennis courts. So, I think it's quite good for me, and also for the children.

Life on the urban-rural interface afforded many of the advantages of city living, while removing many of its disadvantages, such as traffic and transport costs:

**Interviewer:** Do you like the area? What's it like to live there?

**Rebecca:** It's nice and quiet. It's close to the city, so it's very convenient. And it's in walking distance to uni

**Interviewer:** Could you describe a little bit about what it's like to live in Bendigo?

**Hal:** Oh, it's great. Um, we basically have everything that we need here in terms of facilities and services. We don't have the hassles that you have in Melbourne.

**Interviewer:** Like...like what?

**Hal:** Well, the travel for a start. For me to get to work here is probably ten minutes on a slow day, you know? If traffic is going my way, it's probably about five minutes! Costs here are obviously far cheaper in that sense. You don't have any issues with say, parking, like you get

in Melbourne. Like I said, you don't have the tolls that you have in Melbourne. It's just, in my mind, a better lifestyle, you know? If I want to go to Melbourne, I just get on the train and go down there, do what you need to do in the city centre, thank you very much, and come back.

While proximity to bushland generally held positive associations with nature, wildlife and space, one participant also described feelings of insecurity, with the bushland also producing its own threats, stresses and anxieties. After moving away from his residence in the densely forested area of Research to the more suburban Greensborough, Jonathon reflected on how the bushland had been a constant source of his feelings of vulnerability:

**Interviewer:** So, you live in Greensborough now, and previously Research. Would you say that, do you feel any more or less under threat in Greensborough, or Research? Which would have been the more...

**Jonathon:** Oh, ah...ever since moving away from Research, I have felt, I've been able to relax a lot more during summer. And yeah, it is still very...it's got a lot of fuel for bushfires around here, but um, given that I've got the Western Ring Road around the back of the house, I feel like an escape is a lot easier, whereas Research, yeah, absolutely risky. I was sad to leave there, just because I loved the place, but in other ways, I wasn't sad leaving behind the stress and the panic of threat.

Jonathon's account of his time in Research suggested a pervasive anxiety that could become acute, particularly in comparison to his residence in Greensborough. The possibility of escape (an important existential defence against bushfire threat) was easier to imagine at Jonathon's home in Greensborough compared to his home in Research, while the comparatively denser fuel loads around his home in Research provided a greater stress and 'panic of threat'. Indeed, Jonathon's insecurities were located at a particular intersection of temporal and physical space; that is, his property in Research during the summertime, when fire risks were heightened:

**Interviewer:** You mentioned summer, I wanted to sort of explore that. In summer, was there more of a feeling of dread or unease as opposed to living at other times of the year?

**Jonathon:** Yeah. Especially after 2009, before that it wasn't really much of a concern, but ever since 2009, um, there was always that fear, that dread. Because a couple of years ago, I had a friend who lived in Kangaroo Ground, which isn't far from Research. He...there was a bushfire, grassfire around his place and ah, he and his brother were forced to evacuate, whilst his dad stayed back. But um, it worked out okay, nothing happened, but it happened to a few people I knew who lived in Kangaroo Ground, they were forced to evacuate. That made you realise that it's a very real threat, and I think I was never able to relax again during summer, especially after 2009. That was the big turning point.

During the 2009 Black Saturday bushfires, Jonathon's property was located close to the site of the St. Andrews fires; his property had only been spared from the fires by a late change in the wind. Prior to the 2009 Black Saturday fires, Jonathon's concerns about bushfire risks was minimal; the advent of Black Saturday appeared to have crystallised bushfire risk, piercing the routine expectation of his neighbourhood as a safe place and producing ontological insecurities.

Jonathon described 'never being able to relax again during summer', with 2009 being 'the big turning point'. These statements suggest a re-orientation of Jonathon's sense of ontological security; where before, Jonathon had been able to relax during summer, the 2009 fires forced him to consider the consequences of his choice of residential location, re-imagine the degree to which he could predict and rely upon the constancy of his environment, and caused him to dwell on the existential risks of loss and death. Bushfire risk was a chaotic presence in the environment, one which was alleviated when Jonathon moved to Greensborough and was able to reaffirm control and predictability through fewer encounters with fuels and identification of a reliable escape route.



### 7.3.2: Defiance of convention and insecurity from other actors

Another narrative which emerged involved the stresses of living in proximity to bushland, coupled with low expectations of the behaviours of other members of the community. In these instances, insecurities appeared to stem from the disruption of convention; participants held views about the various conventions of 'correct' bushfire safety behaviour, which they believed were not always observed or reproduced by other members of the community:

**Interviewer:** Is there ever a feeling of dread or unease on hot days, living so close to bushland?

**Rick:** Ehh...you always hope to get to the nightfall. There's nothing worse than a 45-degree day and a northerly wind that's blowing through at about 80 to 100 k's an hour, and then you get, as we're forecast for tonight, a heavy rain, and the potential for a storm, because then you just don't know what's going to happen out there. I think that as a society also, I think that...I think that people are accountable too, for a lot of these events that take place. So, what I'm saying is it's not a natural event for a fire to take place, I think that unfortunately, people are the problem.

**Interviewer:** Okay. Both accidentally...and on purpose?

**Rick:** Yep, absolutely, yep.

Rick's concern for the potential of a bushfire to occur involved a synthesis of natural risk, human error and purposeful deviance. Despite Rick's description that high winds and storms could be a contributing factor to a bushfire, his position was that a fire was an unnatural event, often started by other members of the community through carelessness, or with malicious intent. When pressed further, Rick explained his position on how people should behave during fire-season:

**Rick:** How should they behave? I think that, again, it's an educational process. I think it's good that we, you know, are continuing to educate people, and I think sometimes, you know, we're

very mindful of the elderly, animals, kids locked in cars. You know there's so much out there now, to say hey, you can't do what was done when I was your age, as opposed to where you are now. You're about to start a family, you're not going to keep your dog locked in your car, you're not going to keep your kids locked in the car with the window rolled up, but it's human nature. Some people still do it, and I don't think that word has got across. So has the word got across about the awareness of fires and bushfires, you know? You can say there's probably 95% good people out there, who do the right thing. There's always those who challenge the system, and then there's those who just don't give a rats'. Which is a bit disappointing.

**Interviewer:** So, you think people are both becoming more risk aware, as you said, with looking after kids in cars and whatnot, but there's also this other branch of people...

**Rick:** Yeah, there's a minority that just really don't care.

**Interviewer:** Because they're switched off, or they know, and they still don't...?

**Rick:** I... I'm not convinced that they probably realise the full potential of what's happening, you know? I'm a non-smoker, and I think about it, if I see someone fling a butt out the window of a car. And then you buy a new car, anything that's from about 1995 onwards, there's nowhere for people to actually...

**Interviewer:** There's no ash tray.

**Rick:** That's right. What are you doing? By default, you're encouraging those people to fling it out the window! Is that the right way to have gone? I don't know.

**Interviewer:** It sounds like there's a discrepancy between what they intended, and the landscape...

**Rick:** That's right. The intent's good: 'Let's stop people smoking in our cars.' The flip side of it is, people will still continually smoke in their cars, those who want to do it. Then you see them driving down the road, I see it, they just [flick] out the window. Do they realise the potential of what can go wrong if that does go into the bush? Not so sure.

Developing levels of public awareness surrounding the dangers of various activities have resulted in a progression of societal norms that such behaviours are no longer tolerated, and are now punishable under law. Despite this evolution, Rick felt that some people maintained these types of behaviours, either through a malicious intent, or through carelessness or apathy. Rick carries these analogies to demonstrate that though acting responsibly around bushfire risk is a convention he produces and is what *he* would consider a societal norm, there may be others who are ambivalent about the risks, or even encourage these risks. Behaviours in high fire danger seasons can be understood as conventions (in so far as two parties need to coordinate to avoid a problem, such as both parties not flicking cigarette butts out of their car windows in order to avoid bushfires). However, Rick's description suggests that the other actors involved in meeting this convention are not as reliable as he is in observing and reproducing these conventions, have different risk tolerances, or merely do not acknowledge the potential dangers of the behaviour.

Rick also reflected that these risks are encouraged not only by members of the community, but also at an institutional and technological level, where as a by-product of the anti-smoking movement emerging from the late 1990's onward, new cars are no longer equipped with ash trays for smokers to deposit their cigarette butts. Rick believed that, though this is a well-intentioned change, the move encourages smokers to fling their cigarette butts from their moving car windows, where they may ignite bushfires.

Hal was similarly critical of other members of the community:

**Interviewer:** Are there ever times, and I guess mainly in summer, where you can't do things you might like to, because of the risk of fire? So, for example, go away on a holiday, or...

**Hal:** Yeah. Yeah, I'd go along with that. I like to stick close to home during the hot months. And then you get some real plonkers like, you know. I've known of people to cut grass on 35, 36, 40-degree days and you're just saying, 'What the hell?' It's only gotta spark once, and all of a sudden, you've got a fire. You know, I've seen people use angle grinders and so forth on

a 40-degree day and you think 'What the hell, seriously?' If it sparks, it's going to start a fire. I've seen people, you know, paddocks of long grass, drive a vehicle through it. Seriously? Once again, your exhaust gets hot, you'll start a fire.

Like Rick, Hal's description suggests a coordination problem is present. Hal is relying on other members of the community refrain from particular behaviours, such as using ignition-risk machinery on hot days. If both individuals can coordinate their actions, and form a convention of not performing these behaviours, then most individuals will enjoy the benefits (e.g. a lower likelihood of accidental fire). However, if only few individuals meet the convention, then no party can enjoy its benefits. Thus, Hal was startled by the behaviours of the people he's known, who neither observed nor reproduced the conventions of fire safety which benefitted all.

Evidently, it appears that conventions which would lead to an optimal outcome is not being replicated, as it is difficult for such conventions to coerce or otherwise promote compliance.

From an ontological security perspective, the failure of other parties to observe and reproduce bushfire safety conventions is securitising. Hal can raise issues and discuss these matters with his friends, neighbours and other people, but he cannot police them. The preferred safety convention protects against existential dis-organisation or chaos (as Hal does not have to worry about each of these actors *if* they are aligning to his expectations), however, like most conventions, that convention is invisible until it is subverted.

Thus, when such behaviours are encountered, the response appears to be one of not just surprise or disbelief, but also betrayal, as the trust that Hal has placed in others has been misplaced.

Gwen expressed a feeling of fear surrounding the idea of bushfires and held similar concerns to Rick regarding the capacity for others in her social sphere to facilitate the spread

of fire. Gwen was concerned that a bushfire could happen in her area, experiencing unease as a result from previous encounters with fires, as well as a feeling of vulnerability because of her neighbours' more blasé attitudes toward fire safety:

**Interviewer:** Broadly speaking, how much would you say you know about bushfires?

**Gwen:** Broadly speaking? I know they're terrifying. I know I've had to run away from them. I know they're killers; I've lost people I love in them. And they will get out of control incredibly quickly, and they're quite unpredictable.

**Interviewer:** Do you feel like a bushfire could ever happen around your area?

**Gwen:** Absolutely

Gwen described bushfires as 'terrifying'. She identified her neighbours' failure to properly maintain their own property as a source of vulnerability to her, where her imagined fears of bushfire could manifest into physical space. Thus, Gwen's exposure to bushfire is amplified by her neighbour's lack of care in maintaining their property, while her ability to mitigate her exposure to bushfire is constrained (to an extent) by the borders of their properties. As noted in *Section 6.3.4*, Gwen recognised that she could not maintain the back area of her neighbour's property (where access would be more private), but insofar as she was able to exert control over this source of her vulnerability, she did so to maximum effect, maintaining both her own, and her neighbour's front areas, which were more public.

### **7.3.3: Warnings and ontological insecurities**

Warning systems also appeared to generate ontological insecurities in some participants. Somewhat paradoxically, warning systems helped to securitise Jonathon and Gwen against existential threat, but also securitised them, making them feel vulnerable or otherwise exposed:

**Interviewer:** You mentioned you listened to the ABC radio to get updates. Did you have that playing in the house?

**Jonathon:** Yeah, that was on constantly.

**Interviewer:** What was that like, having this radio in your house, pulsing these warnings? Can you describe how that made you feel?

**Jonathon:** I was very tense. Because I think, we had heard of someone I had went to school with, he had a property in [place], I think that had...or news travelled through that his place had gone. And I heard there were a few...I think, St. Andrews, which is just fifteen minutes down the road, was under a threat of bushfire. I think it had probably been destroyed by bushfire, from memory, and I think that kind of contributed to the tense feelings and nervousness. I think, having the ABC radio on, and just constant news updates about the fires, it wasn't exactly calming, but I felt it was necessary to have it on, so I think even though it was that false alarm, I'm still glad it was on, because if we weren't listening...

**Interviewer:** Sure, you could have been taken by surprise.

Jonathon stated that though he felt it necessary to have the ABC radio playing in his house on high fire danger days, the broadcasts made him feel tense. The presence of a device in the home, pulsing warnings about incipient danger had the dual effect of both securitising Jonathon in a practical sense by keeping him apprised of dangers to his home, which he can then act on, yet also existentially insecuritising him by forcing Jonathon to confront fire danger as a realistic possibility.

Like Jonathon, Gwen described a sense of anxiety when she received warnings about fire danger:

**Interviewer:** Do you, do you get a lot of warnings with that app?

**Gwen:** Depends on the weather. It's generally pretty accurate, and it's pretty quick. So normally I can hear the fire trucks leave just as I'm receiving the alert.

**Interviewer:** How do you feel about it, like, when you get those alerts, is there...

**Gwen:** Well, I'm immediately...well, I'm a little bit anxious and a little bit curious, mainly because, as I said, I have had some pretty unpleasant experiences with fires in the past. I don't underestimate them.

Whilst Jonathon's anxiety came from his own imagination and having to imagine bushfire creeping toward his own property and using warning systems to stay appraised of such movements, Gwen's anxiety was instead experientially located, and based on an aversion to past, unpleasant experiences.

Kara discussed her husband's perspectives of other members of the community and official warnings:

**Interviewer:** Do you ever feel a sense of dread or unease on hot days, living close to bushland?

**Kara:** No, I don't panic about that sort of stuff. My mum used to, but no, I don't.... when I say I don't stress, I'm not a very stressy person. I'm fairly laid back, low-key sort of person. You do...you're aware. If you know that it's a really hot day, my husband says that they shouldn't advertise it, because that's when the idiots get out and start throwing a match. He gets cross about them saying 'This is a catastrophic day'. Personally, he thinks they shouldn't advertise it like that. So, yeah, be aware that it's going to be really hot, but that seems to be...those words, he feels, seems to kick-start the brain of those sort of people. Now whether that's true or not, I don't know, but it could.

Though Kara herself did not feel particularly anxious about the possibility of bushfire, she mentioned that her husband was concerned that official warning messages would lead to arson during the summer months. Kara noted that her husband felt that by issuing warning messages, the choice of words used by authorities would 'kick-start the brain of those sorts of people', triggering certain areas of the population to deliberately subvert conventions and

perform risky or deviant behaviours, such as deliberate arson. This apprehension appeared to be directed at two groups; those who started the fires, but also the authorities who distributed the warning messages which triggered such behaviours.

The description suggests that official warning messages can make previously invisible conventions explicit and visible: that people should not start fires because it is in the interests of most parties for dangerous bushfires to not occur. Once these conventions are made explicit and visible, the implication is that people who otherwise would have done nothing will purposively defy conventions as a means to resist coercion.

#### **7.3.4: The insecurity of chaotic events**

While not strictly related to the bushfire risks, participants also described their feelings of vulnerability from other, seemingly random events. These events are noteworthy when *compared* to the descriptions of bushfire, and how they may impact residents of DBPAs. Participants were asked about other potentially hazardous events which were distinct from bushfires, and what it was about these potential events which left participants feeling insecure. Natalie described two random events which challenged her sense of ontological security; a car which had crashed through her front fence, and encountering a snake:

**Interviewer:** Do you think there are risks that are greater than bushfires in your area? Like crime, or flood, or something...?

**Natalie:** Oh yeah, I think that you put it all in perspective and try not to get bogged down thinking about one specific possibility because, you know, I'd probably be more concerned that a snake's going to be around than a bushfire. Because I think with a bushfire, you do tend to get some level of warning, and also some level of prediction based on the weather and the wind and the rest of it. Whereas, like, we've had a car crash through our front fence before, and that's completely unpredictable. I'd be more worried about the chances of that happening



again. In fact, after that happened, we moved our bedroom from the front room to the next room along to give us a buffer.

**Interviewer:** And the same with a snake, there's no warning?

**Natalie:** Yep. And also, the cats bring them in because the cats are stupid.

After a car crashed through their front fence, Natalie and her partner moved their bedroom away from the site of vulnerability as a means to re-establish security over the spatial boundaries of the home. Natalie and her partner found they were no longer able to sleep securely in their bedroom, given that a car driving through the bedroom wall was now a possibility which could no longer be existentially bracketed. Retreating further from the site of vulnerability was practically effective at reducing their vulnerability to this hazard, but also provided a means to order a chaos they were previously not sensitive to.

Natalie also mentioned that snakes were a danger around her home, and that her pet cats found snakes outside and brought them into the house. This appeared to be an ontologically insecuritising experience, as it also challenged feelings of control over the boundaries of the home. The experience of having dangerous snakes brought into the home demonstrated its porous boundaries, and like the car crashing through her bedroom wall, such an event could not be predicted or forecasted.

The critical component that divided Natalie's insecurities around bushfire from her insecurities surrounding the above events appeared to be in the predictability of the former and the unpredictability of the latter. Given that Natalie felt she could forecast bushfire conditions 'based on the weather and the wind and the rest of it', she expected that she would have reasonable enough warning of a bushfire to prepare and escape. To Natalie, bushfire risk lacked the same chaotic pattern as the other two events mentioned. All three events are to some degree 'chaotic', yet a bushfire was imagined to be something that could at least be detected early,

enabling Natalie and her partner to implement control strategies to mitigate the risk and re-affirm ontological security.

## **7.4: Chapter conclusions**

I do not make a claim of having discovered each participant's complete sense of ontological security or to have captured their perspectives and experiences completely. Participants in the study constructed and protected their sense of ontological security from the various challenges of bushfire risk on the urban-rural interface in unique and nuanced ways. Despite this, the data presented does go some way toward demonstrating how ontological security structures interact with URI perspectives of bushfire risk.

Trust structures were identified as a component of ontological security structures, in which participants drew upon expert knowledges and governmental bodies to inform them about bushfire risk, as well as address hazards beyond their own capabilities. Evidence of ontological insecurities was also present in the data, with participants securitised by the presence of bushland, other actors and their responses to bushfire risks, as well as events which were seen as being less predictable than bushfires.

Ontological security structures appear to be a key part of the navigation of bushfire risk in late-modernity for residents of URI areas. Technology, and the access to expert advice that accompanies it allows URI residents to interact with bushfire risk in various ways. These technologies served as both a source of security, allowing individuals to remain appraised of fire hazards, yet could also be securitising, both reminding individuals of danger when they worked as intended and leaving individuals feeling exposed when they did not.



# **Chapter 8: Discussions and Conclusions**

## **8.1: Introduction**

Urban-rural interface (URI) residents are a unique and fascinating population of study. The shifting boundaries of URI interfaces, the dynamic composition of their populations and their exposure to significant fuel loads requires thoughtful research in order to best understand the perspectives, experiences and perceptions of the people who make these places their homes. As members of the risk society, URI populations hold ontological security structures which enable them to navigate the uncertainties of bushfire risk in late-modernity. Ultimately, it appears that risk perspectives do not so much influence ontological security structures or vice versa as much as ontological security structures provide answers to the questions that bushfire risks pose. While URI residents undoubtedly hold different perspectives on the degree to which their environments actually do contain bushfire risks and the level to which those risks are of personal concern to themselves, their ontological security structures serve to provide answers to the question: ‘*If* there are risks, then what would that mean for me?’.

This chapter explores this as a key idea. It presents the answers to each of the key research questions of the thesis first. The chapter then provides discussion of these findings in reference to other literature, describes the implications of the findings, and where appropriate, makes recommendations for future policy and research. Finally, the chapter provides some limitations to the research and results, before offering final conclusions.

## **8.2: Results**

In this section, the major findings of the research are described. In Chapter 1, the primary research questions of the thesis were presented. The findings of these research questions are now presented below.

### **8.2.1: What perspectives do residents of urban-rural interfaces in Designated Bushfire Prone Areas have about their exposure or susceptibility to bushfire risk?**

The results demonstrate that URI residents in Designated Bushfire Prone Areas (DBPAs) have varied and nuanced perspectives of their exposure or susceptibility to bushfire risk. No single characterisation of a URI interface resident was established. Some residents of urban-rural interface areas hold the perspective that bushfire risks are present in the environment and require preparation, observation and management, while other residents appear to be less concerned by bushfire risks having any impact on their lives.

While participants' individual feelings regarding exposure or susceptibility to bushfire risk may vary, the mechanisms through which they form judgements about risk held similarities. Feelings of susceptibility or exposure appear to be influenced by two key factors; the degree to which URI residents observe particular objects in their environment as being both a potential and proximate source of potential bushfire risk, and the degree to which other people are able to influence their ideas about whether bushfire risk is present.

This research found that observable environmental objects such as grass, overgrowth, trees, bushland and Fire Danger Rating (FDR) boards are a primary source through which individuals make judgements on their personal levels of bushfire risk. My work suggests that these objects provide material evidence that enable individuals to envision an actual place where a bushfire might take occur and then form judgements about whether such objects are proximate to the home. In the case of FDR boards, these objects served also to remind individuals more generally that fire hazards may be present in the environment.

These objects and their representations as potential sites of danger conflict with a second type of environmental object, which individuals envision as reducing their exposure to bushfire hazards. Observations of the environment as a more 'built-up' location capable of insulating individuals from bushfire hazards reduced the feeling that bushfire risks are present.

Often, the key criteria for bushfire risk is the presence of flammable greenery or densely forested areas; where URI residents feel they are more proximate to built-environment structures and concrete rather than nature, feelings of bushfire risk are not as prevalent.

Grace & Peter, the couple who lived in Eltham with their infant son, were particularly emblematic of the nuances of URI bushfire risk perspectives, holding conflicting views on their potential exposure to bushfire risk. The couple identified their neighbouring suburb of Research as a site of potential bushfire danger and believed that a bushfire could spread to their own area. Grace's initial ideas of where bushfires could and could not occur were challenged after witnessing the aftermath of a fire-front in Epping, a built-up suburb of Melbourne characterised by industrial facilities and suburban elements ten kilometres from her home in Eltham. Peter remarked that he felt the residents of Eltham held 'a degree of fire-consciousness', but not compared to the residents of the neighbouring suburb of Research, where he imagined bushfire risks to be greater. Though they felt that they might face some risk as a result of living in the area, Grace and Peter cited their position as tenants, rather than homeowners as reasons that they had not undertaken any fire-planning.

Participants were further influenced by interactions between their peers, governmental and council bodies, with levels of community integration and cohesion appearing to hold some influence over the degree to which individuals imagine bushfire risks to be present in the environment. Interpersonal experiences may produce a conflicting or unclear message about whether bushfire risks are present in the environment, particularly when participants had fewer perspectives to draw upon as a result of lower social integration or lack of access to networks. Inversely, if interpersonal interactions are present and bushfire risks can be or is discussed with peers, a dynamic may emerge where bushfire risk is socially constructed and felt as a risk which is relevant to that particular social sphere, and thus individuals can help each other to make bushfire risks 'real'. An individual who is *not* a part of a community in which there is a belief

that bushfire risks are present or *is* a part of a community in which there is *not* a belief that bushfire risks are present may be isolated from discourses which suggest that bushfire risks are present.

Governmental bodies may have also influenced perspectives as to whether bushfire risks may be present, however this was not definitively answered. Conflicting experiences with agencies who are perceived as being responsible for the maintenance and management of bushfire risks appeared to disrupt understandings of whether bushfire risks are present in the environment or not. Conflicting risk messages were produced in instances where council bodies had been negligent in the maintenance of areas where bushfires may occur, yet also instructed residents that they should make preparations around their own homes to mitigate fire risks. Megan described her own frustrations with the council who had not performed maintenance works on the nearby aqueduct track yet had advised her to ensure her own property was clear of flammable debris. While Megan was potentially more frustrated by what she felt to be a hypocritical position taken by the council, the inconsistency in the council's risk messages may have contributed toward Megan's perspectives of her susceptibility to bushfire risk in the area. Conceivably, if Megan's council had cleaned the aqueduct track and also asked her to clear flammable debris from her property, then Megan may have felt differently about the presence of bushfire risk in the environment, as the two messages would have reinforced each other. Some evidence of this was detected: when risk messages to residents and residents' observations of hazard reduction by the council were in alignment, perspectives of the presence of bushfire risk appeared to be less ambiguous, however this acknowledgement of risk was not necessarily securitising. Jackson, of Flora Hill, had been told by the council when he constructed his home that the area was in a 'higher risk area', and the regular maintenance that the council undertook served to both highlight that risks were present in the environment, but were also being addressed, producing a sense that risks were under control.

The data indicates that residents of DBPAs along urban-rural interfaces have nuanced and varied perspectives of bushfire risk and assess the potential for bushfire hazards to emerge through observation and consideration of environmental elements, while their perspectives of risk are influenced by both their peers and by other actors in their social spheres. Further, the data also underscores the need for authoritative communications to be consistent and mutually enforce each other to enhance their effectiveness, with inconsistent risk communications potentially undermining the risk messages.

### **8.2.2: How do residents of urban-rural interfaces in Designated Bushfire Prone Areas construct and protect their sense of ontological security?**

This research found that residents in DBPAs along urban-rural interfaces construct and protect their sense of ontological security in a variety of ways. The existential threat provided by the thought of bushfire does not impact residents of these areas uniformly; some residents are securitised by the thought of a bushfire to a greater degree than others, with these securitisations often dependent on factors such as personal mobility, previous experiences with bushfire, and attitudes towards other people who share the landscape with them.

As expected, residents of these areas undertake a variety of daily routines around which their lives are structured. These routines provide ontological security by granting individuals a sense of continuity and predictability in the world, allowing them to perform actions with a confidence that their expectations about the world will be realised and will come to pass. Ontological security is constructed around the successful completion of routines, helping individuals to construct a moving world of normalcy whereupon things can be ‘taken-for-granted’, which is intrinsically connected to notions of trust. Perhaps due to the relatively infrequent nature of acute bushfire threats or simply because at the time of interviewing there had been no requirements to undertake bushfire preparations, participants in the study did not describe any bushfire-related risk management actions as being a part of their daily routines.



Participants utilised *practical consciousness* as a mechanism through which to protect their sense of ontological security. Practical consciousness sections off existential threats that are beyond the individual's control through the 'bracketing' of existential possibilities, allowing the fragility of life's structure to be ignored and order maintained (Giddens 1979, 1991). In this research, practical consciousness appears to be a means through which the hypothetical (yet possible) threats presented by potential bushfires can be navigated; though residents may not necessarily feel that they are at risk from bushfire hazards, they are able to construct hypothetical bushfire situations and imagine how they will deal with them through practical consciousness. As the interviews highlights, elements of practical consciousness include: a comfort in the ability to imagine that evacuation of premises will be easy; a comfort in the efficacy of warning systems which alert them to hazards; preparatory and maintenance tasks around the home, regardless of whether these were symbolically, superficially or practically effective; insurance policies which would provide remuneration to individuals if they were affected by bushfire; and security in the existence of bushfire-related planning knowledge, which individuals may not actually possess, but still draw a sense of security from knowing it exists and is accessible. When faced with the existential threat of a hypothetical bushfire, practical consciousness was used to mitigate its uncertainties and chaotic effects.

Residents also protect their sense of ontological security by relying on a variety of *trust structures* which are necessary to mitigate threats beyond the individual's control. Intrinsically connected to routine and the 'taken-for-grantedness' of the moving world of normalcy (Möllering 2006, p. 52), trust structures provide individuals with the ability to maintain confidence that their expectations about the world will be realised and will come to pass. Trust and confidence in experts were presented in previous chapters and was both securitising and insecuritying; if experts were perceived as being effective at their role and accurate in their assessments, then that trust was a securitising force. If experts were perceived as being

ineffective or misinterpreted risks, then trust was undermined and became an insecurity force. Residents rely on expert knowledge and decision making to keep them apprised of risks as well as to manage resources used to mitigate those risks, yet individuals are forced to rely upon expert knowledge and higher authority, even if they have mismanaged bushfire risk in the past.

Interlinked with the practical consciousness element of adequate warning and the trust structure of expert knowledge, residents also trust and rely upon the tools that enable them to be forewarned of bushfire risks. The predominant tool described by residents appears to be the CFA FireReady/VicEmergency app for smartphones, however residents also utilise traditional radio and television broadcasts to remain informed of bushfire risks. Reliability and timeliness of warning information appears to be a critical factor regarding the choice of warning tool, and a loss of faith in the efficacy of tools can lead residents to discard them as no longer useful.

While residents are able to construct and protect their sense of ontological security in the ways described above, it is also important to describe the forces which they observe as being particularly insecuritying. Some residents hold anxieties surrounding the flammable nature of nearby bushland, while others hold a mistrust and suspicion of other members of the community, who do not replicate 'safe' fire behaviours and potentially contribute toward bushfire risk.

### **8.2.3: Are there relationships between the risk perspectives and ontological security structures of residents of urban-rural interfaces in Designated Bushfire Prone Areas?**

Providing an account of any relationships between the perspectives of bushfire risk that people have, and the ontological security structures which protect them from existential threats is the ultimate goal of the thesis, and it does seem that there must be relationships between the risk perspectives and ontological security structures of residents of DBPAs along URIs. The

ability to find or create answers to the existential questions a hypothetical bushfire situation asks is a securitising practice for residents, and ontological security structures function whether residents feel threatened by potential bushfires or not.

As mentioned in the introduction to this chapter, risk perspectives do not so much influence ontological security structures or vice versa as much as ontological security structures provide answers to the questions bushfire risks (whether real or imagined) pose. During the design phase of this research, I had imagined that a more causal relationship would exist; that participants would either a) describe not being insecured by the prospect of bushfire risks, thus not requiring a practical response or b) if participants were insecured by the prospect of bushfire risk, that they would take steps to address their ontological insecurity through practical measures that would address potential vulnerabilities and restore ontological security.

Instead, it appears that the degree to which URI residents of DBPAs form risk perspectives and feel threatened by the potential for bushfires is highly variable, and any influence that their ontological security structures have is far less binary. Bushfire risks, real or imagined, present challenges to order, stability and routine, while ontological security structures provide avenues through which order, stability and routine can be maintained. Participants placed trust (a critical component of ontological security) precariously in a range of other actors, and ontological insecurities were present when residents had no choice but to trust in actors who they felt might act unpredictably or could otherwise not be relied upon.

Bushfire risk, or the idea that a bushfire could threaten one's home or life, does not appear to be ontologically insecured for most of the sampled URI residents. It is not a concept which most of the sampled URI residents imagined would present as a likely scenario or would present with significant and unmanageable effects resulting in chaos and disruption to order, stability or routine. The likelihood and potentially harmful effects of bushfire risk

appeared to be contained by ontological security structures, which provided answers to the questions that bushfire risks might pose.

### **8.3: Ontological security and the navigation of late-modern bushfire risk**

Based on the findings of the research, four particular themes of discussion can be established. First, what does the research suggest about how URI populations interact with bushfire risk in late-modernity? Second, what can the findings of the research tell us about how URI residents form judgements about locating bushfire hazards in their environment? Third, how are the risk perspectives of URI residents influenced by others, what does the research tell us about any social conventions which are established within URI contexts, and can these conventions be used to develop greater levels of bushfire preparedness in such communities? Lastly, what does the research tell us about the place of ontological security structures in navigating bushfire risks in late-modernity, and how is this comparable to similar studies?

#### **8.3.1: Bushfires, individualisation, collectivism and late-modernity**

For residents of URI populations who live within DBPAs, individualisation choices and the personal management of risk may be problematic if such populations are also relying on social engagement and conventional exchanges in order to reach decisions about effective bushfire risk management.

In late-modernity, people are surrounded by risk information. Advice for mitigating risks is provided by a range of actors, with individuals expected to self-regulate and align their behaviours with that advice. Thus, people are required to evaluate which information is important to them and prioritise that information based upon their own assessments of what they believe to be risks relevant to themselves.

Individualisation in late-modernity also means that more choices are available to individuals in how they wish to construct their lifestyles, subcultures, social ties and identities (Beck 1992b, p. 131; Furlong & Cartmel 1997). Forms of collective identity (family, work, social ties) are eroded and supplanted by more open processes of personal choice and reflexivity (Mythen 2005, p. 132). Individualisation requires that one must choose among risks, conform to one's internalised standards and be responsible for oneself while also being dependent on conditions outside of one's control (Gephart Jr, Van Maanen & Oberlechner 2009, p. 145). As a function of individualisation, personal risk is managed more independently, with less social engagement and greater freedom of choice.

In URI areas, preparation for bushfires appears to be a highly individualised undertaking. Responding to bushfire risk is a product of individual choices, with individuals expected to exercise their own responsibility for staying aware of changing conditions, interpreting and understanding advice, forming plans, and deciding to either evacuate or stay to defend their homes. No collective structures which might force householders to create their own bushfire plans, fortify their homes, or even evacuate in a bushfire scenario. Coercive social conventions *might* prompt a householder to mow their lawns or clean out their gutters, but different tolerances for risk and coercion among individuals mean that such conventions are not always effective. Without social interaction, the highly individualised person may have no opportunity to feel or consider bushfire risks as a realistic possibility, as they do not encounter the informal rationalities of other members of the community which might foster these opportunities. This is further exacerbated by the nature of communities and societies in transition; newcomers arrive constantly in URI locations who do not have the same histories, experiences, values or beliefs regarding fire risks.

Despite the fact that preparation for bushfires is highly individualised, collectivism is inevitable in bushfire threat scenarios. Communities under threat of fire will, for example, call

town meetings where fire danger is discussed, and advice is provided to attending residents. Upon noticing smoke, neighbours will leave their houses to investigate, whereupon they might converse about the situation and determine an appropriate conventional response. I noticed this phenomenon while driving through Greensborough during the 2019-2020 bushfire, located 1.5km north of my residence. As I drove through the suburb, I found many residents to be congregating at the edges of their properties in discussion with their neighbours, looking toward the direction of the fire, and then dispersing to wet their properties down with hoses.

Prior & Eriksen (2013, p. 1575) note that social cohesion has been found to 'support the adoption of mechanical preparations' as well as 'the development of cognitive abilities and capacities that reduce vulnerability and enhance resilience' to bushfires, while Paton, Burgelt & Prior (2008) found that the circulation of stories regarding bushfire within a studied community enhanced knowledge of local history of bushfire as well as increased respondents acceptance of bushfire risk and the importance of preparing for bushfires.

Thus, bushfires in URI areas present a dichotomy; individuals are encouraged to prepare for bushfire individually yet experience the effects of bushfire collectively. Despite the collective experience of bushfire, many current policy approaches remain individualised. People are free to choose to live in areas of high bushfire risk (though some may be forced to do so due to structural inequalities) and until recently, were free to follow or ignore recommendations to evacuate as they saw fit. Daily routines leave little opportunity for individuals to engage with communal structures that might provide training to residents of bushfire-prone areas or have them become part of greater interpersonal community resilience efforts. While engagement with communal structures is available, such engagement is an individualised choice which often struggles to compete with other priorities and demands.

Bushfires are a collective threat, threatening collectives of people. Further, as bushfires increase in size, frequency and magnitude, their hazards are becoming borderless. For example,

smoke from the 2020 Australian bushfires reached Chile and Argentina, some 12,000km away. Significantly, this research found that a framework which relies upon individualised interaction and engagement with bushfire risk communication may be ill-suited to the way in which people actually attempt to construct bushfire risks and develop responses to them, yet it may not be until individuals re-negotiate their own relationship with bushfire risk, and align with classification of being 'at-risk', that individual engagement with bushfire risk, or individual engagement with communal structures will increase. Lowe, Haynes & Byrne (2008) identified that individual involvement with Community Fire Units (CFUs) was heightened after a bushfire, but receded as individuals perceived the risk to dissipate; thus, the transient nature with which people feel threatened by bushfire risk remains a barrier to a continued feeling of exposure, and thus, a continued alignment with the 'at-risk' classification.

### **8.3.2: Ontological security and interaction with risk**

In Chapter 2, I illustrated how bushfire risks can be conceptualised as a risk of late-modernity that individuals and society are forced to interact with in ways in which it has little prior experience to rely upon. Ontological security is critical to the navigation of such risks, and the data presented in Chapters 6 and 7 illustrates how individuals construct and protect the sense of ontological security, which in turn protects them from the hypothetical (but possible) and existential threats presented by the idea of living in a place where bushfire hazards may threaten the self.

Harries (2008) examination of the ontological security structures of flood-risk residents in the United Kingdom is the progenitor to the research conducted within this thesis, and while this study should not be thought of as a reproduction of that study against a different backdrop, the similarities between our work presents opportunity for comparison and contrast. Harries demonstrated not only that residents of flood-risk areas have unique ontological security

structures which interact with representations of the home, nature and society, but also that there (1) may be situations in which choices are made between ontological and physical security needs, and that, (2) people may preference their ontological security needs over their physical security needs. My own research demonstrates that residents of bushfire-risk areas in URI areas also have unique ontological security structures, and even though it is unclear if there are scenarios in which choices must be made between the ontological and physical security needs of URI residents in DBPAs, it is readily apparent that ontological security galvanises URI residents against hypothetical bushfire threats.

There is also a distinct contrast available. Harries findings suggest that for flood-risk residents in the UK, society is seen as a competent protector of last resort, with residents reluctant to accept a need to protect themselves (2008, p. 484). For bushfire-risk residents of URIs in Victoria, Australia, society may be described as a less important actor in the protection of the self from bushfire, with greater recognition and acknowledgement of personal responsibility. However, the URI residents interviewed in this study depended critically on having access to the information and tools which would *enable* them to take personal responsibility. While no residents were expecting that fire-fighters could be summoned on a moment's notice to protect their homes from flames, they did hold the expectation that they would be adequately forewarned of bushfire conditions and issued with reasonable, timely and relevant instructions to avoid danger. While evidence from multiple bushfires suggest that such forewarnings are not always realistically possible due to informational time lag as well as disruption of communication infrastructure, the expectation that forewarning would take place nonetheless formed an important part of ontological security structures.

Another contrast may be the use of maintenance tasks as a bulwark against hypothetical bushfire threat. In the case of UK flood-risk residents, Harries identified that residents were uncomfortable with or resistant to the idea of installing unsightly flood mitigation measures to



fortify their homes against flood risk, as such measures challenged the representation of the home as an innately safe place (2008, p. 482). While Victorian URI fire-risk residents may also think of their homes as innately safe places, further fortification through maintenance tasks to control flammable vegetation was not seen as especially challenging to this representation, and in fact served to further reinforce the idea that homes were protected from fire hazards (regardless of the overall effectiveness of such maintenance tasks against the broader goal of bushfire risk mitigation). I should clarify that it was not well established whether residents performed such maintenance tasks merely as part of regular home maintenance, or specifically to fortify against bushfire threat (and the motivation behind such tasks could change from season-to-season), but two important points are that (1) no evidence was discovered of residents being *insecuritised* by home maintenance, and (2) evidence *was* discovered of residents being insecuritised when their neighbours failed to perform home maintenance (which presented fire risks to themselves beyond the locus of their own control). The differences between flood- and fire-risk mitigation are noteworthy; where flood-risk mitigation efforts evoked discomfort by appearing to make a home look 'unusual' (2008, p. 483), maintenance work which reduced fire-risk was discovered in this study as a part of making a home look 'tidy', 'clear' and 'clean'. In both flood- and fire-instances, residents want their homes to look nice; but in the fire-context this desire aligns with risk mitigation. Further, while maintenance tasks were embraced as a form of risk mitigation (or risk mitigation being enjoyed as a side-effect of maintenance tasks), evacuation planning was not prioritised in the same fashion. Participants had very little in the way of formal and organised evacuation plans; it is perhaps feasible that evacuation planning challenges a representation of the home as a safe space (and one which will not have to actually be evacuated) in a way that maintenance tasks around the home do not.

Though the concept of insurance did not emerge in Harries work, its relevance as a feature of late-modernity and its importance to the ontological security structures of hazard-prone residents must also be discussed. Booth & Harwood's (2016) comprehensive study on the geography of insurance as a disaster management tool found that householders in places of high bushfire risk were insecure, rather than securitised, by insurance mechanisms. Citing a lack of transparency from insurers, the construction of insurance as an individual endeavour, and the rendering of household materiality as object, they found that householders of high fire risk areas avoided insurance mechanisms (2016, p. 44). Such findings diverge from the findings of this study, in which insurance schema provided residents with additional levels of security in the face of an imagined bushfire scenario. Residents in my study appeared to be less attached to their material possessions; Adam expressed that, while being covered for his losses 'wouldn't be the same because I lose the things that I'm sentimental about', he ultimately placed his trust in his insurance fund ('But, can't take it all with me. Chances are, nothing will happen. If something happens, something happens.'), while Kara was of the view that most of her material possessions could be replaced easily but her physical safety could not ('Because we're all insured and I figure life is more important than worrying about your, your material stuff'). Far from being insecure by insurance schema, Megan identified that her insurance could turn a bushfire into a positive occurrence; she felt that her home was old and that if it burned down her insurance would cover her to 'get a brand new one'.

Some reasons for the variance in findings are apparent. First, the context of the sampled populations may be dissimilar; while I studied residents of URI locations (which, as described, come with their own competing ideas of whether their area is in-fact 'at risk'), Booth & Harwood's study was conducted with 'seven individuals residing in places at high risk of bushfire in regional and rural south-eastern Tasmania, Australia' (2016, p. 45). Described further as appearing 'to have a strong sense of where they live in regard to bushfires and are

actively engaged with neighbours in preparedness' (2016, p. 46), Booth & Harwood's participants may have experienced a greater feeling of bushfire as a *realistic* possibility, forcing different deliberations on engagement with insurance. Booth & Harwood characterised their study participants as *amenity migrants* — part of a growing suburban population that is moving into regional, rural and peri-urban areas for lifestyle reasons (Abrams et al. 2012). Citing Cotrell & King (2005; 2007), they identify that such a classification consists of distinct sub-groups which make it difficult to form a distinctive or homogeneous character of such residents. This follows from the results of my own study, in which no single character of a URI resident could be established, and thus further explains potential differences between the two studies.

### **8.3.3: Placing bushfire risk in the environment**

The current study highlights that URI residents form judgements between themselves and hazards present in their environment based on feelings of potential proximity to those hazards, whether any barriers between themselves and those hazards exist, and whether other elements in the environment could de-emphasise those hazards as potential threats. Thus, if residents form judgements that objects in the environment are not hazardous or that there are barriers between themselves and those hazards, then feelings of susceptibility to those hazards may be diminished.

Distancing oneself from elements of the environment which can be perceived as hazardous or threatening aligns with the desire to maintain a sense of ontological security. Potential sites where hazards can manifest may be sources of chaos and disruption, and thus a representation of the environment as one mostly free, or at least sufficiently distanced from these sites allows individuals to go about their daily lives free unrestricted by the existential threats they offer. These judgements are reinforced through the traversal of daily routines but may be challenged in the event of an actual bushfire, where such sites may no longer be

constructed as devoid of hazards, and barriers between oneself and hazards could be discovered to be porous or ineffective at containing the threat.

The evidence suggests that environmental elements (such as grass, trees, bushland, warning boards, or through suburban elements such as houses, streets, concrete etc) and interpersonal interactions (other actors to help make bushfire risk seem 'real', or other actors who did not appear to recognise bushfire risks) had some influence over perspectives of exposure or vulnerability to bushfire risk.

Literature on risk is replete with discussions surrounding heuristics and other modalities which influence risk perception. Slovic et al (1999) describe the importance of affect in the role of risk perception. Defined as a 'faint whisper of emotion', they use affect to mean the specific quality of 'goodness' or 'badness' a person might feel about a stimulus, a response which occurs rapidly and automatically (1999). As an example, they note how quickly one might sense feelings associated with the stimulus word 'treasure' versus the word 'hate'. Slovic et al characterise this reliance on feelings in risk perception as the 'affect heuristic' (1999).

Conceivably, some use of an affect heuristic may be noticeable within the descriptions of bushland or suburbia by participants within this study, although this was not always readily apparent. Whether areas of bushland provided the same 'faint whisper of emotion' as described by Slovic et al (1999), or whether a different heuristic is being used is a matter of interpretation. Some participants in the study appeared to have negative emotional connotations with bushland (Gwen, for example, described herself as being quite fearful of the bush), while others had more neutral or even positive associations with nature and bushland (Kevin was unphased by the presence of bushland, while Jackson described the convenience of the nearby bushland as a place where he could happily go for a run).

More accurately, observations of the bushland could not necessarily always be categorised into a simple negative/positive heuristic. Participants described a range of feelings

toward bushland. Rather than using a positive/negative heuristic, participants equated bushland as a site where bushfires *could* take place (a logical conclusion), but if they felt such sites were suitably distant, or that the suburban character of the landscape insulate themselves from these sites, then feelings of exposure or vulnerability to bushfire risk was lessened.

Thus, the data does appear, in some ways, to reflect Slovic et al's affect heuristic (1999). For some, bushland areas indicated sites of potential bushfire risk, while houses and concrete generally indicated safety from bushfires. However, 'objective' risk differs from perceived risk, with 'objective' risk measured through statistical likelihood of fatality (or at least, harm) from a hazard (Sjöberg 2000), while perceived risk reflects perceived likelihood, which differs from statistical probabilities through various biases (Hirschman et al. 1983; Siegrist & Gutscher 2006; Sullivan-Wiley & Short Gianotti 2017). Conceivably, a person who draws a feeling of safety from the observation of suburban elements such as houses and concrete may 'objectively' be at just as much risk from bushfires as a person who is cognizant of both bushland and suburban elements, but they may have differing perceptions on their exposure to bushfire risks.

Paton (2003) described preparation as a process that involves people making judgements regarding the relationship between themselves, the hazards present in their environment, and the actions available to mitigate the attendant risk. Paton et al (2006, p. 567) suspected that 'preparing' and 'not preparing' do not lie on a continuum, but are instead indicative of different ways in which people construe their relationship with a hazardous environment. The results of my research support this position, suggesting that intentions and decisions to prepare for bushfires are indicative of the different ways in which URI residents evaluate whether hazards are present in the environment at all.

There does not appear to be another study conducted which assesses how URI residents represent the objects of their environments as potential bushfire hazards or insulation from

those hazards, and nor does this study claim to offer a comprehensive analysis of this phenomenon, only merely to suggest that it exists. Critically, this goes some way to further explaining why residents in URI communities who are at risk from bushfires may not undertake preparations which are in alignment with the advice of governmental bodies. While for some residents, bushfire risk mitigation efforts may compete for attention among a host of other tasks, other residents may not undertake the desired preparations for the more simple reason that they do not imagine or perceive a significant presence of hazards around themselves. Thus, residents of DBPAs may resist their 'at-risk' classification, and therefore eschew preparation for bushfires.

#### **8.3.4: Peer and other-actor influence on bushfire risk perspectives**

Interpersonal interactions appeared to have some influence over bushfire risk perspectives. Importantly, it appears that community cohesion and social interactions influence bushfire perspectives; that is, the presence of other actors in the environment who can aid others in making bushfire risk seem 'real'. Jackson's local council contributed to his perspective that bushfire risks were present around his residence, while Megan's local council instead produced a mixed message. Craig's dual experiences in Horsham and Bendigo are noteworthy; in Horsham, the greater levels of community cohesion allowed for a sympathetic and vicarious experience of risk. As Craig noted: 'Everyone kind of knew everyone. So, if everyone knew everyone, then you're going to know people who are out in the bush, out on the farms and stuff. So, it's kind of like, it's always on people's minds, whenever it got really hot.' While literature surrounding lay-persons' reflections of expert appraisals of risk is plentiful (Wynne 1996; Sjöberg 1999, 2000; Siegrist & Gutscher 2006; Palttala et al. 2012), literature regarding this more intimate, interpersonal nature of risk perception appears sparse. To what degree do other people affect our own perceptions, assessments, and ultimately, perspectives of risk?

The Social Amplification of Risk Framework (SARF) (Kasperson et al. 1988; Pidgeon, Kasperson & Slovic 2002) provides a close description to the peer or other-actor influences on risk perception noticed within this study. Social amplification of risk denotes the phenomenon by which individual processes, institutional structures, social-group behaviour, and individual responses shape the social experience of risk, which then contribute to risk consequences (Kasperson et al. 1988, p. 181). The SARF, therefore, describes the social and individual factors which act to amplify or attenuate perceptions of risk, and then generate secondary effects such as regulatory changes, economic losses, or stigmatisation of technologies (Breakwell 2014). The framework ‘focuses upon the dynamic social processes that underlie risk perception and decisions. It highlights that certain events or hazards, which experts would state are relatively low risk, can nevertheless become a focus of societal concern (risk amplification), whereas other hazards, which experts judge as more serious, attract less public attention (risk attenuation).’ (2014, p. 255). Importantly, the SARF proposes that risks will have an impact ‘not only through their primary physical effects, but also, and often more importantly, through the way people communicate them to others’ (2014, p. 255). Breakwell states that ‘the act of communication requires that risk is translated into various “risk signals” (images, symbols and signs) that will interact with a variety of social, institutional or cultural processes and that this will result in the intensification or dampening of the perceptions of the risk and its manageability’ (2014, p. 255).

The research highlights that bushfire risk perspectives may be influenced by peers (friends, family, co-workers etc) and other actors (neighbours, wider members of the community, governing bodies such as local councils and other organisations). In terms of social amplification and integration into the SARF, the bushfire risk perceptions of URI residents in this study were amplified (or at least, enabled) by some actors, for instance: Craig's networks

in Horsham; Jackson's local council; Greg's networks in Bendigo, and being attenuated by others: Craig's networks in Bendigo, Megan's local council.

Divisions in risk perspectives within the community itself also appeared to be noticeable. Megan, Peter, Gwen, Greg, Sheree, Hal and Kevin all reflected on and suggested that they held different opinions or perspectives on the degree to which there was fire risk present in their environments than other actors they perceived in their community. This included councils who provided conflicting messages of fire risk, participants' reflections on the degree of 'fire-consciousness' of other people in their suburb compared with their own appraisals of bushfire risk, and contestation between what (if any) fire preparation is appropriate.

This research questions the degree to which the risk perspectives and risk assessments of others can affect one's own risk perspectives. Taken together, the sociological and psychological literature describes risk perception taking place in affective and calculative domains (Loewenstein et al. 2001; Slovic et al. 2004), with certain risks being selected and emphasised by society above others (Douglas & Wildavsky 1982, 1983). Social amplification and attenuation of risk can be demonstrated under the SARF (Kasperson et al. 1988; Pidgeon, Kasperson & Slovic 2002), wherein a variety of actors in a network amplify or attenuate the 'importance' of risks.

Few or no studies by other researchers appear to have been conducted exploring the role of smaller, more immediate networks in formulating risk perspectives. Kasperson & Kasperson (1996) note that individuals continually rely on informal personal networks, such as those of friends and neighbours as reference points for validating risk perceptions and contextualising risks. The research presented here suggests that URI residents may be selective in their choice of those reference points, often rejecting the risk perspectives of some actors in their environment in favour of others



If risks are conceptualised as social facts, then the social interactions between people will influence the degree to which those risks feel present. Douglas (1982, 1983) suggests that certain risks are emphasised, publicised and are altogether more concerning to society than others. The emphasis is not necessarily on which risks can cause the most harm, but instead which risks are most relevant to a society based on its shared values and moral positions. This research takes a less macroscopic view; it does not suggest that the findings of the sample are representative of all URI residents (and therefore, broader society), but does produce valuable observations surrounding risk perception, peer-to-peer influence, and the role of other actors in the appraisal of risks.

### **8.3.5: Conventional influences of others**

The research suggests that despite the different risk perspectives which exist within a community, barriers may be present which prevent a consideration of alternate points of view. When different risk perspectives come into contact with each other, an ideological conflict occurs, with each side believing their own judgements on risk 'levels' to be correct. Where actors are socially distant from one another, then different perspectives of risk may never be in prolonged contact with each other long enough or meaningfully enough to reach a synthesis. This separation is not simply a matter of geography; two neighbours might hold radically different perspectives regarding bushfire risk but may not interact with each other regularly or meaningfully in a way that that alternate perspectives are encountered. Indeed, criticism of others risk perspectives may help to position, affirm or validate one's own perceptions, perspectives, values, beliefs and behaviours surrounding bushfire risk, with each side believing they are 'right', and others are 'wrong'.

Perspectives of bushfire risk appear to be influenced by other actors in the environment. Risk perspectives are formed through observations and interactions with peers, as well as

through observations and interactions with government bodies such as local councils as well as expert knowledge. Brenkert-Smith *et al* (2013) identify these interactions as *horizontal* (non-expert and informal) and *vertical* (expert information sources and formal social interactions) interactions which are associated with perceived risk of experiencing a bushfire. They found quantitative evidence to suggest that ‘...people are learning and shaping their beliefs about the likelihood of fire through diverse social channels, whereas beliefs about the consequences of fire seem relatively independent of information sources and social interactions.’ (Brenkert-Smith *et al.* 2013, p. 813).

The findings of the current study reflect the findings of Brenkert-Smith *et al* (2013), but add an additional qualitative dimension. While it does appear that residents learn and shape their beliefs about the likelihood of fire through diverse social channels, and that beliefs about the consequences of fire may be relatively independent of information sources and social interactions, some important nuances did emerge from interrogation of qualitative data within this study. Interview data revealed the role of observation and judgement of others in processes of positioning oneself in relation to bushfire. For instance, Greg described his friends and family, who believed as he did that bushfire risks were present and needed to be mitigated. He also described other members of the community, who he did not know personally, but described as failing to perform the appropriate actions of fire safety that he believed were important. Both of these groups influenced and reinforced Greg’s perspectives on bushfire risk, with his friends and family (the group he was aligned with) performing the *right* actions, and strangers in the community (the group he was not aligned with) performing the *wrong* actions (or no actions at all).

Conceivably, variances in people's social networks may produce different influences. In some cases, people may be horizontally influenced by social actors who do not produce any particular conventions that support effective fire safety, or they may have difficulty accessing

a network of horizontal actors which could promote effective fire safety conventions. Rebecca, for instance, was a new resident to her URI area; she felt that it was a risky area in which a bushfire might occur but admitted to relying on the area as being more built-up and thus insulating her from risk, as she was unsure of how best to respond to bushfire risks. She also stated that she and her family were only starting to integrate into the community through her church group and children's basketball teams, and that she was unsure about how much of the fire warning information available (vertical influence) was meant for her. With no especially strong views of what effective bushfire risk mitigation practices should look like for herself, self-professed levels of isolation from the community, and confusion regarding the relevance of official bushfire risk information channels, Rebecca (or a resident like herself) is in a precarious risk position.

The gap between recognition of risks, and subsequent implementation of risk mitigation behaviours is well established in risk and bushfire literature (Johnston et al. 1999; Paton & Johnston 2001; Eriksen & Gill 2010), and I do not believe or suggest that there is any causal link between the risk perceptions of URI residents and their willingness to adopt risk mitigation actions. I do, however, suggest that other people may have a significant role to play in how individuals perceive bushfire risks, as well as if and how they decide to adopt mitigation behaviours. Research supports evidence that networks and relationships among locals in communities of rural fire-prone areas have helped to build resilience and adaptive capacity (Paveglio, T et al. 2009; Jakes & Langer 2012), however such evidence describes residents specifically aiding each other in their fire-mitigation efforts. Instead, I suggest that a less conscious form of influence may take place, which is the establishment of convention. Defined as 'regularities of behaviour, sustained by an interest in coordination and an expectation that others will do their part' (Lewis 1969, p. 208), conventions are coercive and permeate almost every aspect of social life; they are difficult to defy without encountering some form of

constraining response (Durkheim 1964, p. 52; Gilbert 1988, p. 245). From an ontological security perspective, conventions as a solution to coordination problems are essential, as they require people to trust that others will enact or return the conventions that they themselves demonstrate.

If, within a network of residents it is conventional for those residents to undertake particular actions which would make them more resilient to fire hazards, then the coercive properties of that convention would discourage (though not prohibit) residents from rejecting such conventions. As an example, if it is conventional for residents of a particular neighbourhood to regularly maintain and mow their lawns (an action for which they all ostensibly benefit), then the coercive properties of that convention would discourage (though not prohibit) any resident from *not* mowing lawns. Lawn mowing and other home maintenance tasks are easily observable (and thus, shareable) conventions, and subversions of these conventions are obvious; an unkempt lawn stands out obviously in a street of well-manicured gardens, subverting the norm of residential lawn maintenance. Wescott (2017) suggests that narrowing the bushfire awareness-preparedness gap in residents of rural locations could be achieved through developing 'fire-fitness' as a routine social norm which would help to establish and maintain a culture of preparedness. Wescott describes an ideal transition of fire-preparedness behaviour from being a desirable, yet time consuming 'optional extra' to an activity as routine as buying groceries or fuelling a motor vehicle (2017, p. 38). Through the cultivation of such a culture, conventions might be established which constrain community members from deviating from norms.

Not all conventions of fire safety are easily shareable or observable. While conventions of home maintenance are easily observable and shareable, other important actions which are effective at reducing or responding to bushfire risk do not have the same properties. Evacuation planning, for instance, is difficult to readily or casually share or observe with others, while the

relative invisibility in which it takes place makes it difficult for it to assume coercive properties. This is further compounded when URI residents have low levels of social interaction with peers, and potentially fewer opportunities to observe basic and effective preparation behaviours.

Further, conventions may be defied due to misalignment in individual interests. Brown (1995) identifies four types of situations in which conventions are difficult to establish: when there is a preference to be free of social problems (exit); a preference to have government solve problems (delegation); a preference to put individual interest ahead of social interest (private gain); or a preference to not be put at a personal disadvantage (parity). Chelsea, for instance, described her neighbours as foisting the burden of responsibility for area maintenance to the council (a form of delegation), while Hal described users of power tools on hot days (private gain) and Rick described smokers throwing cigarette butts from their car windows (parity). While conventions around fire safety may be beneficial for creating more resilient communities, defiance of convention will likely remain a factor for those with sufficient motivation to do so.

#### **8.4: Emerging themes of the research**

The results of the study provide a unique view of the perspectives and experiences of urban-rural interface (URI) residents in Designated Bushfire Prone Areas (DBPAs) of Victoria, Australia. Critically, the data provides a clearer understanding about the perspectives of bushfire risk that the residents of these areas have, as well as the way they construct and protect ontological security, which is fundamental to their navigation of bushfire risk in late-modernity.

URI boundaries are not static; population growth and migration expand these boundaries over time. As the radius of this growth increases, more Australians are making their

homes among the boundary, and live exposed to bushfire hazards. URI areas have long been recognised as particularly vulnerable areas due to a combination of high fuel loads, rugged topography with poor access and exit points, and a large proportion of inhabitants with little experience in living in the bush or fending for themselves in a major fire (Miller, S, Carter & Stephens 1984; Balcombe 2007). Urban and regional planning research identifies that development within bushfire prone areas will continue as decision-makers find it difficult to refuse development (Norman et al. 2014). As migration of relatively inexperienced people into areas of heightened bushfire risk is likely to continue in the future, an understanding of how these persons might perceive risks to be present, and how their senses of ontological security securitise them against hypothetical bushfire danger is critical.

#### **8.4.1: Bushfire policy and individual alignment with risk classifications**

The findings of the research have important implications for policy and program development, such as bushfire communication. The data from this research indicates that many residents of URI populations who live within DBPAs and are thus designated as 'at-risk' do not necessarily identify with or align themselves with this designation. Given that such residents do not always necessarily agree that they are 'at-risk', the degree to which they feel warning information is relevant to them, what preparations are required of them, or what information regarding bushfire risks might be valuable for them is highly variable. In the risk society, management of risks is an often-independent undertaking, and current policy appears to be directed toward motivating individuals to engage independently with bushfire risk.

The *Victorian Bushfire Safety Policy Framework 2018* identifies 'Awareness and Education' as its first priority area (Victoria 2018, p. 13). It identifies the difficulties in achieving behavioural change for bushfire safety, citing constraining factors such as the complexity and variability of the risk due to local conditions, people's perceptions and attitudes,

and most importantly, that some people may lack the capacity to address the bushfire risk or choose not to engage (2018, p. 13). The policy states:

An integrated approach, using broad-based media campaigns, government and fire agency websites and publications, locally delivered community education programs, as well as local community events and activities throughout the state, is essential to reach and engage as much of the community as possible. Activities should be delivered year round (2018, p. 13).

While the policy is sensible in suggesting that reaching and engaging as much of the community as possible is essential for improving community resilience, the results of my study suggest that characterisations of people as 'lacking the capacity to address bushfire risk' or 'choosing not to engage' may be an oversimplification of URI living experiences. Certainly, addressing bushfire risk can be costly in terms of money, time and skill, aligning with Becks' perspective that the wealthy are able to purchase safety from risks (1992b, p. 35), however the results of this study indicate that addressing bushfire risk may not necessarily be the product of a lack of capacity or an unwillingness to engage with bushfire risk.

Participants described an ability to address bushfire risk in their own ways, and while some may have chosen not to engage, my findings suggest that these were rational perspectives from within their own frameworks of risk. Elements of their environments de-emphasised the hazards present and therefore precluded (or at least de-emphasised) the need to engage with bushfire risk. The *Policy's* phrasing that residents might '*choose not to engage*' frames residential decision-making in terms that suggest the risk perceptions of URI residents and the risk assessments of bushfire policymakers must be in alignment, and that URI residents who choose not to engage do so irrationally and in spite of risk assessments. My evidence suggests that residents who did not feel the need to engage with bushfire risk (at least to the desired levels of the policy) did so based on their observations that bushfire risk was not something which was particularly present in the landscape or could be something which would particularly

affect them, or that the bushfire risk information they received could not clearly be identified as being for themselves specifically.

From a governmentality perspective, the idea that residents of bushfire-prone areas 'choose not to engage with bushfire risk' provokes dimensions of moral failure. In the risk society, risk-avoiding behaviour is viewed as a moral enterprise (Lupton 1999b, p. 91), and at-risk individuals who make the choice not to engage with bushfire risk can be considered 'a failure of the self to take care of itself — a form of irrationality, or simply a lack of skilfulness' (Greco 1993, p. 361). However, failure to understand URI residents' perspectives, and critically *why* they might believe that bushfire risk may not affect them is itself a failure of governmentality; it is a failure to adequately measure and understand the population that is being governed. Without appropriate measurement of the unique characteristics of the population being governed, it is likely that disconnection between the risk communications offered by governmentality, and alignment with the goals of those communications will take place.

De-emphasising the urban characteristics of the URI as offering safety and security from bushfires may positively influence bushfire preparations. By engaging with the underlying reasons behind why URI residents don't feel they are at risk and asking residents to reconsider how they imagine or construct bushfire hazards around themselves, alignment between the intentions of risk communications by governmental bodies and the responses to bushfire risk by those who have been designated 'at-risk' can take place. Again, while links between awareness of risk and intentions to mitigate that risk are tenuous, de-emphasising the urban characteristics of the environment as being an effective insulation from bushfires could potentially stimulate a greater feelings of vulnerability, promoting behavioural change. Some Country Fire Authority (CFA) imagery (*Figure 8.1*) demonstrates how this might be effective,



and further imagery which highlights the particular vulnerabilities present and unique to the URI would be welcomed.



#### 8.4.2: Bushfire policy, individuality and collectivism

The research indicates that people form perspectives on their levels of bushfire risk and construct their senses of ontological security in relation to other people and actors. Despite the individualised nature of managing risk in late-modernity, the collectivisation of risk response is prominent. The current study indicated that people look to one another in their constructions of risk, as well as in forming potential responses to those risks. This is a complex relationship; individuals can look upon both risk-taking and risk-reducing actions from a

variety of perspectives. Hal's story of what he viewed to be the ill-prepared Eaglehawk boys on their roof and Kevin's observation of his fire-prepared neighbour as 'a bit of a dickhead' indicate that the risk responses of others are evaluated in connection to one's own perspectives surrounding risk (which in this case ranged from inappropriate and inadequate to alarmist and unnecessary).

Though the safety and security of pre-existing traditions and pre-determined social identities which characterised industrial modernity may no longer exist, de-traditionalization and individuality allow people the freedom to find their own communities. Lash (1994) argues that traditional communities have not disappeared, but have reformed around a collective bond of 'risk communities', who share vulnerabilities to collective threats. While URI populations share vulnerability to the collective threat of bushfires, the degree to which they form collective bonds around being a risk community is tenuous. The results of the study indicate that URI populations are not unified in their assessment that bushfire risks are present, holding heterogeneous risk perspectives and experiences. Lacking a general consensus of vulnerability to bushfire risks, the opportunity for URI populations to form 'risk communities' prior to being directly threatened by bushfires appears to be slim.

As URI communities do not necessarily organise themselves around their exposure to bushfire risk, finding effective methods to engage 'the community' is challenging. The *Victorian Bushfire Safety Policy Framework 2018* has a stated goal of community engagement, seeking to 'reach and engage as much of the community as possible'. Communal relations are complex in an individualised society, with individuals belonging to work groups, social groups, religious groups, virtual groups and other groups of their own choosing. URI communities may not be well described as a single 'community', but perhaps more accurately as collections of communities that have highly variable relations with each other. For example, one type of individualisation choice is participation in sporting clubs; thus, while people may not feel a

strong sense of community with their immediate geographic neighbours (with whom they share bushfire risk), they may perhaps feel greater involvement with members of their club whom they associate with on a frequent and voluntary basis. As members of these groups come together of their own volition, they are likely to be more cohesive, and will likely seek to protect each other from external threats. As *Figure 8.2* illustrates, messages may be accessed directly or indirectly, and in this case, the community of import is a sports club.



*Figure 8.2: A member of a Facebook group for a sporting club shares warning information about nearby bushfires*

Thus, the *Policy* is sensible in that 'reaching and engaging as much of the community as possible' is a positive step toward building resilience toward bushfires in URI areas.

However, cognisance of how URI populations actually interact with one another, and how their various communities are actually constructed or ordered is tantamount to successfully promoting resilience, particularly if URI residents do not self-identify as members of the communities in which government bodies are trying to engage. Rhodes (2011, p. 9) critiques this top-down approach to community education, highlighting that it is a 'narrow conceptualisation of activities that can influence people's behaviour in relation to risk' and that 'there are limits to what community education can achieve in terms of community preparedness, given that ultimately people choose whether they will engage, accept and adopt the information and advice'. Likewise, Árvai (2014) suggests that the goal of risk communications should not be to 'correct' the public's attitudes or perceptions of risk, but instead commit to a decision-focused featuring a two-way, multi-party dialogue, where both experts and the lay-public learn how each group characterises hazards. Effective risk communication, therefore, should facilitate risk communication processes which help people to think creatively and broadly about both risk problems, as well as risk management options (2014, p. 1247).

Local community events promoting bushfire resilience are beneficial *if* URI populations actually attend such events, and the most 'at-risk' URI residents may also be the ones who do not attend such events (perhaps because they are not highly sociable, have other priorities, or contest that they are in fact 'at-risk'). Once again, this is a failure of governmentality; it is a failure to adequately and appropriately measure and understand the population and respect the ways its members identify with one another as a community. While neo-liberal approaches to governmentality expect individuals to engage with official risk communications and police themselves (Lupton 1999b), the presentation or format of current risk communications may be ill-suited to the realities of URI residents' community memberships.

It is my view that the general public is aware of bushfire risk, does consider it as something which negatively affects people, and does want to see bushfire-related harms reduced, but does not always agree on what constitutes unacceptable bushfire risk to themselves, at least to the point that behavioural changes are required to mitigate these risks. Bushfire risks, understood as social facts rather than extant properties about the material world, are precarious and subject to change, with expert advice about bushfire risks composing only one actor in a construct that is constantly negotiated as part of a network of social interaction and the formation of meaning Lupton (1999b, p. 29). Where today a bushfire risk may be understood as non-existent or at least within acceptable parameters, tomorrow that same 'risk' may instead be more concerning — not necessarily based on an appraisal of expert knowledge, but instead due to a shift in cultural, political or aesthetic experiences.

The research has not fully identified the ways in which members of URI communities interact with one another but suggests that this is a valuable opportunity for further study. While URI residents may not attend local community events, be members of volunteer fire-brigades, or even know the names of their next-door-neighbours, the networks through which they do associate may be effective methods of community engagement *if* such networks can be identified and used. A key question is: how and to what degree do URI residents associate with each other, and how should governmental bodies best tailor community engagement responses to the nuances of these associations?

#### **8.4.3: Planning implications and conventional wisdoms**

The ontological security structures that were observed in this study suggest that URI residents may eschew effective home bushfire planning due to other feelings which may mitigate a sense of personal vulnerability. These include beliefs that residents may be able to easily escape their homes without a requirement for a comprehensive plan, that home

maintenance tasks might somehow reduce the need for an evacuation plan, and that residents will receive timely and effective instructions about what to do should a bushfire occur.

There are problematic implications for this. If it is true, for instance, that URI residents are comforted and securitised by a belief that evacuating their premises while under threat of bushfire will be an easy and straightforward process, or have not imagined that it would be a difficult process, and have not actually assembled any plans for how to do so effectively, then there are foreseeable moments where these vulnerabilities will be exposed and URI residents may be caught in a difficult evacuation scenario. McCaffery, Rhodes & Stidham (2015) found that homeowners were more likely to think of alternate responses to evacuation as valid options, while simulation studies have demonstrated that urgent evacuations can result in significant traffic congestion and a sharp increase in mean vehicle travel times (Cova & Johnson 2002, p. 2226). URI populations may operate under the assumption that they will have perfect information during a bushfire event; that is, that their ability to access information will be unimpeded and the quality of the information that they can access will be at all-times relevant. This is not always a likely scenario; certainly the Black Saturday bushfires demonstrated significant vulnerabilities in the dissemination of timely information to relevant stakeholders (Commission 2010, p. 11).

The CFA Fire Ready Kit advocates, *at minimum*, that householders should make clear decisions regarding the following ten questions before each fire season:

1. Which Fire Danger Rating is your trigger to leave?
2. Will you leave early that morning or the night before?
3. Where will you go?
4. What route will you take — and what is your alternative in the event that a fire is already in the area?
5. What will you take with you?
6. What do you need to organise for your pets or livestock?

7. Who do you need to keep informed of your movements?
8. Is there anyone outside your household who you need to help or check up on?
9. How will you stay informed about warnings and updates?
10. What will you do if there is a fire in the area and you cannot leave?

While no quantitative data has been provided alongside these findings due to the small sample size, it is worth mentioning that at no point during this study did any participants describe a fire-plan which resembled that described in the CFA Fire Ready Kit. In Lohm & Davis (2015) study into bushfire-risk, most residents in URIs had prepared bushfire plans, and importantly, 'deemed simple evacuation plans to be impractical as they did not cater for possible unexpected issues which could make evacuation impossible or unacceptably dangerous' (2015, p. 412). Importantly, all participants in that study had prior bushfire experience, potentially explaining the discrepancy between the two studies. This is not to say that they had not developed their own preparations, or even that they may have had a plan in line with the CFA Fire Ready Kit and simply did not mention it during the interview, however the lack of reference to the CFA Fire Ready Kit is conspicuous, given that is conceivably the first resource a URI resident might consider drawing upon to address bushfire risks. Most participants described their bushfire plan as being to simply leave the area should a bushfire occur; here, *plan* is correlated more closely with an intention or decision rather than a detailed schematic for successfully accomplishing evacuation goals. The Kit also stresses the requirement for this plan to be written down, rather than merely remembered, citing the written plan's ability to reduce uncertainty and anxiety; only one participant mentioned having a written fire-plan.

The conspicuous absence of written and detailed fire plans in the sample may be once again attributed to a number of factors. Feelings that bushfire risks are not largely present in the environment, and that if a bushfire does occur, warnings and timely instructions will be delivered which will inform residents of the actions they should take, may eschew a perceived

need for a written or detailed fire plan. Identifying an effective policy recommendation for this problem is difficult. Relevant warning materials already stress the importance of written and detailed fire-plans, yet if residents do not feel they are at risk it seems unlikely that they would engage with risk mitigation materials. Further, *Section 8.3.5* identified the relative invisibility within which home fire-planning takes place, rendering it difficult for fire-planning to assume coercive properties.

A re-socialisation of risk mitigation may be a path toward greater resilience. Drawing fire-planning out from its relative invisibility might allow fire-planning to assume coercive properties. Wescott (2017), recognising that residents require time to activate bushfire plans, proposed the idea of Catastrophic Day Leave (CDL) as a workplace agreement that allows employers and employees to negotiate substituting workplace leave with an agreed number of CDL days (2017, p. 38). Wescott illustrates that one potential effect of the proposal would be to encourage others to establish plans and arrangements within their networks, promoting a culture of shared responsibility (2017, p. 39). I believe that not only would this promote a culture of shared responsibility, but that it would encourage the development of conventions of fire safety and draw home fire-planning out from its relative invisibility. If it becomes conventional within a workplace for employees to discuss their bushfire plans, then employees who have not considered fire planning may be coerced to do so. If it were conventional to create a fire-plan or other detailed evacuation plan, and that plan (and as such, convention) could in some way be observed and shared with others, then it would ideally take on coercive properties, perhaps incentivising residents who did not have a fire-plan to create one. Workplaces are only one such network where formal policy procedures can enable sharing to take place, and through the identification of URI channels of association and networking, additional spaces where the establishment and sharing of planning conventions may be utilised.



Noticeable and advertised maintenance may be an under-emphasised factor for building a shared convention of fire readiness. Two participants in this study described the efforts of their local council to mitigate bushfire risk: Jackson was reminded of bushfire risk when he noticed his local council performing hazard reduction work near his property and expressed a sense of security in knowing that the area was being looked after. Megan, in contrast, experienced conflicting messages from her local council, who both advised her to clean out her gutters but failed, in her eyes, to address the overgrowth of the nearby aqueduct track. It appears that council bodies who are responsible for area maintenance may be important actors in norm-setting, capable of reminding residents to be cognisant of bushfire risks, however these bodies must act both visibly and consistently. Advertisement of council area maintenance works may contribute to making fire risks seem 'real' in the eyes of residents, while also reinforcing confidence in council bodies for addressing hazardous areas. Inconsistencies in risk messages may be counter-productive to aligning residential feelings of risk with the desired objectives of risk managers.

## **8.5: Limitations**

Limitations of findings are acknowledged. The risk perspectives of the interviewed URI residents described in this study are not an exhaustive list of the perspectives of bushfire risk which all URI residents of DBPAs hold, nor are the ontological security structures described in the study an exhaustive list of the ways in which residents of DBPAs along URIs construct and protect their sense of ontological security. Additional research could be undertaken, in the same or different URIs, and capture different or new perspectives. Thus, the research only offers a glimpse of URI residential living experiences.

The study aimed to recruit 30 participants for the study (of which 31 were ultimately recruited). While this figure was initially selected based upon a meta-analysis of 560 post-

graduate studies (Mason 2010) as the ideal sample size to achieve data saturation in qualitative interviews and reach theoretical exhaustion (where no new information is gleaned from successive research events), successive interviews may have gleaned additional information.

Development of the interview questions could also have been improved. Conversations with participants tended to focus more toward themes of ontological security, with an assumption that risk discussions would emerge naturally from these topics. While risk topics and perspectives did emerge in interview discussions, I would conduct a more comprehensive exploration of these responses in future

A potential flaw in the research design may have been the lack of ‘priming’ questions regarding bushfires; while this was at the time deliberately chosen during the design phase so as to capture a more ‘raw’ understanding of participant perspectives on bushfire risk, it may have precluded some participants from participating as fully as they could have with the interview. In future, it could be more worthwhile to consider some priming discussion as a means to assist participants to remember, recall, or take a position on bushfire risks.

For the purposes of data quality assurance, some commentary on the question of depth and brevity of the interviews is necessary. Drawing deeper reflections out of participants was at times problematic; some were less forthcoming in their interviews or had less to say regarding the topic than others. For instance, Benjamin was concise in his descriptions of his own bushfire knowledge, and probing for further expansion on his answers was difficult:

**Interviewer:** Sure. I guess, broadly speaking, how much would you say you know about bushfires?

**Benjamin:** Not a lot.

**Interviewer:** Not a lot?

**Benjamin:** No.

**Interviewer:** So, I guess, no direct experiences with them?

**Benjamin:** No, no direct experience with bushfires, nothing like that.

**Interviewer:** Do you feel like a bushfire could happen in Diamond Creek?

**Benjamin:** I think it got pretty close last season. So, I guess it's possible that it could occur.

**Interviewer:** But it's not something that really plays on your mind or anything?

**Benjamin:** No.

**Interviewer:** No?

**Benjamin:** No, it's not something that I really worry about.

By contrast, Greg was more forthcoming when asked the same question, and did not require further probing for expansion:

**Interviewer:** So, broadly speaking, how much would you say you know about bushfires?

**Greg:** Going back to the last few years, there have been major bushfires around Kangaroo Flat area, Maiden Gully, heading out towards Big Hill. We tend to get a lot of that residue out over our areas, whether it's that sort of like, wind factor bringing it back into there, but we can remember not that long ago standing out, and you can watch the burning coming through and you think: 'Somebody's copping it, big time'. And when they had the major bushfires in Bendigo, things started to happen. We've now got our assembly area for Kangaroo Flat, like the footy grounds and stuff like that, so that...it's built up. And with a lot of wooden houses around our area, the major concern is, you know, the last thing you need is burning embers, gutters, stuff like that. So ah, yeah, very much...same thing with our trees, particularly if you have...they're huge trees, we look after our trees, but the last thing you want is burning embers and crap landing in them, because we've got units to the left-hand side of the house and to the back of the house. The residents that live in those love it, because the trees provide them with good shade over their units, but we're very cautious about the after-effects of...making sure they're cut back every few years. Any dead wood is taken out. We're very much aware of the repercussions.

Consistency in the terms used to assess the 'quality' of a qualitative interview is highly variable (Roulston 2010), with the literature emphasising 'credibility', 'thoroughness' (Rubin & Rubin 2011), 'validity' (Kvale 1996), and the four 'Rs' of 'representativeness, reactivity, reliability, and replicability' (Mishler 1986). Kvale (1996, p. 145) suggests that the quality of an interview can be judged on the extent of spontaneous, rich, specific and relevant answers from the interviewee as well as the degree to which the interviewer follows up and clarifies the meanings of the relevant aspects of the answers. Despite the difficulties in drawing deeper responses out of some participants, the interviews yielded rich sources of data, with answers relevant and valid to the topic of study.

The interviews themselves took place during the months of September 2016 to March 2017, which are periods of heightened bushfire danger in Victoria (Meteorology 2020), and thus, there is the potential for bias in participant responses. While this was specifically identified as a pragmatic time to perform the interviews (bushfire discussions taking place at a time when these discussions would feel relevant to participants), residential perspectives on bushfire risk may be different during the winter months.

## **8.6: Overall conclusions of the research**

Overall, the research concludes that URI residents of bushfire-prone areas interact with bushfire risks in nuanced and particular ways. Bushfire risk perspectives appear to be influenced by estimations and judgements of proximity to potential bushfire hazards and are tempered by perceptions of objects which emphasise the 'urban' elements of the urban-rural interface. Not all URI residents of bushfire-risk locations necessarily identify with their areas as one that could be at risk of bushfire. URI residential bushfire risk perceptions are also influenced through a variety of social actors, with this influence occurring through interactions between friends and family, observation of strangers, and contact with governmental bodies

and experts which can shape or alter the perspective that bushfire risks are present in the environment.

Further, the research finds that URI residents construct and protect their sense of ontological security through mechanisms which help them to navigate both day-to-day life, and the potential chaotic force that an imagined bushfire would present. Though ontological security protects against the hypothetical, imagined threats of *how* a bushfire might occur, URI residents display potential vulnerabilities as the mechanisms through which they ontologically secure themselves potentially undermine their physical security: through choices to stay home while under threat; comfort that evacuation will be an easy and straightforward process (despite little planning of the details of that evacuation); belief that warning systems will always be effective and will provide timely and relevant information and instruction; constructing basic home maintenance tasks (though useful for mitigating fire hazard) as being synonymous with being prepared for a bushfire, trusting insurance policies to compensate most losses experienced from a bushfire; and relying on the existence of practical knowledge to mitigate fire threats, despite not actually possessing that knowledge for themselves. The ontological security structures of URI residents in bushfire-prone areas may be challenged by perceptions of the 'threatening' nature of the bushland itself, by low expectations of other members of the community to perform the correct actions, or potentially by other chaotic events for which fewer control mechanisms can be asserted.

Examination of ontological security structures in disaster-management contexts remains an early and developing field. The research contributes toward the development of this school of thought by examining risk perspectives and ontological security structures of urban-rural interface residents in Designated Bushfire Prone Areas and can hopefully set the stage for future research into similar populations, who may face comparable threats.

### **8.6.1: Opportunities for further research**

As a result of this study, opportunities for further research are possible. URI residents remain an information-rich population of study. Their particular and growing vulnerabilities to bushfire risks coupled with their unique character provide an opportunity for further examination. How do URI perspectives on bushfire risk differ between locations? How do they cognitively map their environments? Do their perspectives vary based on age, gender, occupation, political leanings, heritage, length of residency and more? How do residents of URI populations connect with one another, and can these connections be further explored? Ample space remains for quantitative measurement and qualitative investigation of these populations, and through further research, additional insights may be gleaned towards building more resilient communities.

The research suggests that further work should be conducted on discovering the associations between people, their environments, and the potential risk indicators that exist within those environments. Few studies appear to have been conducted on such visual indicators of risk; how do people perceive the objects in their environments and draw conclusions about risk from them? Even within this study, different levels of knowledge surrounding bushfires contributed to different perspectives of fire risk; where one person might see a tree and think 'beautiful eucalyptus', another might think 'dry eucalyptus, highly combustible, contributes to fire risk'.

Further research might also be performed to continue the examination of ontological security structures. As this research demonstrates, ontological security structures intersect with risk perspectives in interesting ways. How could this study be replicated or re-imagined within a different natural hazard context, and what could we stand to learn about ontological security by doing so? How do the ways in which people interact with the structures of late-modernity influence their capacity to be prepare for and respond to natural hazards? It is my hope that

continued research attention and focus is drawn toward examining the ways in which people construct and protect the image of the self against forces which might challenge their biographical continuity, and how these constructions shape subsequent responses to those forces.

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# **Appendix A: Interview Guide**

## **Interview Guide**

1. Could you tell me a little bit about yourself? How old are you, what's your occupation, how many people are in your family? Any pets?
2. How long have you lived around these parts? Could you describe your property a bit? What it's like to live here? Do you like the area here?
3. What's 'normal life' like for you?
4. Why do you live here, as opposed to somewhere else? Would you ever consider moving? What reasons would you move for?
5. Are you friendly with your neighbours? Are you involved with your community?
6. Broadly speaking, how much would you say you know about bushfires? / Do you have any experiences with them? / What can you tell me about bushfires?
7. Do you feel like this is a risky area for a bushfire to happen? How likely do you think it would be to happen?
8. Do you take any preparations for bushfires? Is preparing for fire something you'd normally do? Why do you do it?
9. Do you know what you would do if there were a bushfire nearby?
10. How much responsibility do you think the government or experts have when it comes to protecting your home? Do you think the people in charge of such things do enough to keep you aware of risks?
11. Where do you get most of your information about bushfires?



12. How do you feel about these warnings?
13. Do you know where to access information about fire safety? If not, do you think you could find this out easily?
14. Do you have a fire plan or defences against bushfire (like water tanks, sprinklers etc). If you don't have these things, what would it take for you think about getting something like this?
15. Would you consider your area to be a fire-conscious place?
16. Are there ever times, mainly in summer, where you can't do things you might like to because of the risks of fire? Do bushfire warnings change your behaviours in any way?
17. Do you think there are greater risks than bushfires in this area?
18. How do you feel in regards to living so close to bushland? Is there a feeling of, I guess, dread or unease on hot days?
19. What sort of expectations do you have for your area, or even Victoria as a whole, during fire season?