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# **But What About the Men?**

Storying Rural Men's Experiences and Perspectives  
of the 2016 Kaikōura/Waiiau Earthquake,  
Aotearoa New Zealand

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of the requirements for the degree of

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*To my mam Diane, who always believed in me.  
Thank you for your eternal love and support.  
I miss you deeply.*

Aotearoa, New Zealand is prone to environmental hazard events, and has experienced numerous significant disasters. While science research has focused on seismic and climate related risks, further research is needed to explore how social constructions of gender shape responses to, and coping strategies in the aftermath of disasters in New Zealand. Gender analyses of disasters also facilitate understanding the ways in which individuals and communities are adversely affected by natural hazard events.

This thesis explores 19 rural men's perspectives and experiences of the 2016 Kaikōura/Waiiau earthquake, and critically examines their daily realities in the wake of the disaster. One research participant was Māori, and another was a British migrant, the other seventeen participants were Pākehā [European descent]. The qualitative research was underpinned by a feminist epistemology framed by social constructionism and an interpretivist approach to research. Feminist methodology informed data collection. Semi-structured interviewing was used to gather men's earthquake stories and identify the subtleties and gendered elements of men's experiences.

Thematic analysis was employed to ascertain key elements embedded within, and across men's earthquake narratives. Substantive themes identified included: sense of place, emotions, space-time and mobility. Sets of understandings about Antipodean, hegemonic masculinities, coupled with a bricolage of social theories, including the work of Moira Gatens, Pierre Bourdieu, Karen Davies and Doreen Massey provided the analytical framework for the thesis. Theoretical understandings of geographical space in the context of disaster are extended through incorporating Bourdieusian fields and metaphysical forms. An argument is advanced that metaphysical space(s), constituted through memories of, and feelings about the earthquake contribute to shaping participants' disaster responses and recovery trajectories. The research chapters presented in this thesis explore the ways men's ontological stories of the Kaikōura/Waiiau earthquake were constructed in relation to emotion, sense of place and embedded in multiple mobile temporalities and metaphysical spaces.

This doctoral research identifies that rural men's realities in the aftermath of the Kaikōura/Waiiau earthquake were fundamentally shaped by place, spaces and temporalities. Furthermore, place-specific hegemonic masculinity informed men's behaviours and practices in response and recovery. Participants drew on meanings of, and attachment to place to navigate and cope with adversity and distress. Emotions related to the earthquake were evident throughout the interviews, inferring continuing trauma and anxieties. Nevertheless, men attempted to sustain representations of Antipodean, hegemonic masculinity by actively silencing distress and challenges. The study demonstrates that the research participants' earthquake experiences were underpinned by multiple, intersecting metaphysical spaces and temporalities that in some cases, complicated and disrupted recovery. The research contributes to an understanding of complexities in relation to men's personal experiences of disasters. Suggestions are provided for the inclusion of how localised sets of understandings about masculinities shape response and recovery in national and international disaster policies and practices.

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# 1

## The 'Luxury'<sup>1</sup> Topic: An Introduction to Gender and Disaster

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*"Disaster marks the interface between an extreme physical phenomenon and a vulnerable human population. It is of paramount importance to recognise both of these elements. Without people there is no disaster"*

*Phil O'Keefe, Ken Westgate & Ben Wisner (1976, p. 566).*

Disasters are described as being intersections of natural/human-made hazards, underlying societal vulnerabilities and insufficient coping capacities (United Nations Office for Disaster Risk Reduction [UNDRR], 2020) of local populations, resources and services (Wisner, et al. 2004). It is also my personal perspective that the significance of understanding disasters lies within the individual and community impacts. As I write this thesis, in the midst of the COVID-19 pandemic, perhaps now more than ever, the importance of social disaster research has become more explicit.

My first memory of witnessing the devastating effects of natural hazards was in 2000, when the river Tees, situated within the North East of England, burst its banks and flooded Middlesbrough my hometown, and surrounding locales. I remember standing in my 'wellies<sup>2</sup>,' side by side with my sister in a flooded guesthouse that was owned by my mother's friend. We were fortunate that our home was protected from the rising waters. However, my mam took us to assist her friend with the clean-up. At five and eight years old, my sister and I struggled to comprehend how the river, which in our child minds was many miles away (it is actually approximately one mile from the guesthouse), could spill out into our town. Since then, I have been interested in the relationships between natural hazard phenomena such as river floods, volcanoes and extreme weather and people.

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1 The term 'luxury' within the context of disaster research is adopted from Fordham et al. (2006) who describe how the topic of gender and disaster has been regarded as an unnecessary contribution to the broader discipline of disaster scholarship. Supporting Fordham and colleagues viewpoint, that gender is an important analytical lens that enables rich understandings of the ways people are impacted by disaster, the term 'luxury' is used in Chapter One's title as a sarcastic play on words to oppose the inequities of the historical judgement of the topic.

2 'Wellies' is an abbreviation for wellington boots; waterproof rubber boots. In New Zealand however, wellington boots are named 'gumboots.'

Geography was the subject at school that most aligned with my interest in natural hazards, and my studies accentuated my curiosity regarding land formations and the natural environment. It was during my sixth form year at college and through the school Geography department, that I got to see for the first time the scale of destruction that can be generated by hazards. In 2008, my school, Stokesley School and Sixth Form College, partnered with St. Mary's College, a school situated within the town of Hambantota in the southern province of Sri Lanka. The partnership enabled an exchange of friendship between the schools, as well as opportunities for teachers and students to visit their partnered school. I was fortunate enough to be a part of the first trip to Hambantota in 2010. The objective of the first expedition was to form strong relationships between St Mary's College and Stokesley School.

Driving along the A2 road, that hugs the Sri Lankan coastline from Colombo to Hambantota, the sheer number of derelict properties along the coast was difficult to observe. The 2004 Indian Ocean Tsunami had left traces of calamity upon the built and natural environments. Hambantota was one of many towns that had significant loss of life, properties and livelihoods. Six years on from the tsunami, during my stay in Hambantota, stories of the tsunami filtered into conversations. Almost on a daily basis, children, parents and teachers spoke about their personal stories of escaping the water, losing loved ones and being told they could no longer live by the shoreline<sup>3</sup>. People would take me to significant places, such as the school field, where after the tsunami, the deceased were placed in rows to be identified. The field was then turned back into a playing field for cricket and football. Thus, the changing use of space, and people's shifting perceptions of place became apparent in people's accounts of the tsunami.

While I do not feel that disasters can be compared, it became evident to me that individuals, communities and towns recover differently, and within differing temporalities. Six years on from the River Tees flooding, there were no obvious signs that the flood ever occurred. Yet for Hambantota, the visual reminders were inescapable. It was these interests that formed during my first visit to Hambantota, that led me to re-visit Sri Lanka in 2012 in order to undertake research for my undergraduate dissertation in Human Geography at Northumbria University.

My bachelor's dissertation, titled *The Changes of Community Dynamics within Hambantota, Sri Lanka Following the 2004 Indian Ocean Tsunami* initially set out to examine how the community of Hambantota, in particular place(s), within the town, altered after the tsunami. Yet, while speaking with local communities and non-governmental organisations (NGO), women became a recurring theme within discussions of change. Women, men, local residents and international humanitarian workers commented on the strengths and capacities of local women in the aftermath of the tsunami. Women used their experiences of the tsunami as an opportunity to positively change their personal situations, which included going to college and learning practical skills such as swimming, using a computer and starting a business. Yet, reviewing the literatures on gender and disaster at the time, disaster policies inherently excluded women, and an assumption that women

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3 Following the 2004 Indian Ocean Tsunami, The Sri Lankan Government mandated a 'buffer zone,' where houses could no longer be built along the coastline (National Housing Development Authority & Ministry of Housing and Construction, 2005). In order to minimise the risk of damage to properties and loss of life in the event of another tsunami.

were vulnerable underpinned the scholarship. It was by having discussions with local people in the town of Hambantota that made me, as a researcher, understand some of the ways in which sets of understandings about socially constructed gender roles and assumptions underpin disaster response and recovery. Moreover, one of the key lessons I learnt as a white, British woman exploring the impacts of a disaster in Sri Lanka, was the significance of positionality and how differences and power dynamics underpin research. It is for that reason, and to facilitate reflexivity, that I acknowledge my privileged position within this research as the recipient and interpreter of participants' stories.

It was my undergraduate research that shaped the direction of my interests in gender and disasters, which led me to write my Master's thesis on *Reframing the Representation of Women in Disaster*. However, over time, it has become apparent that research scholarship on gender and disasters primarily references women's experiences of disasters, and that there is a gap in the literature in regard to men's personal stories of disasters. This knowledge gap within the gender and disaster literature was the impetus for my PhD research. Since embarking upon the doctoral research journey in 2017, an emerging body of insightful work has formed on men, masculinities and disasters (Dominelli, 2020; Labra et al., 2018; Parkinson & Duncan, 2018; Tyler & Fairbrother, 2018), and it is this developing field of scholarship that this thesis contributes to.

## **The Research**

Despite the developing body of international research examining men's well-being in disasters (Dominelli, 2020; Labra et al., 2018; Parkinson & Zara, 2016), further exploration of men's views, experiences and actions in regard to disasters is necessary to inform both New Zealand's disaster risk reduction policies and practices, as well as those of other nations. This thesis develops contextualised understanding of the ways rural New Zealand masculinity shapes rural men's experiences of disaster. Using the 2016 Kaikōura/Waiiau earthquake as the space of inquiry, the doctoral research sets out to examine men's realities, including their self-perceived strengths and challenges in the disaster's aftermath. The three research chapters (Chapters Four, Five and Six) presented in this thesis, demonstrate the value of including men's personal stories of disaster in discussions relative to gender and disaster, and more broadly, disaster risk reduction (DRR). Together, these chapters extend current knowledge of the ways in which social constructions of gender, and importantly, understanding of masculinities, shape personal meanings and experiences of disaster. This chapter introduces the thesis by stating the aims and objectives, followed by the justification and context for the doctoral research. Research contributions are outlined, as well as a summary of the research design. The chapter concludes by providing an overview of the structure of the thesis.

## **Aims and Objectives**

The premise for this research is to develop contextually relevant knowledge from an analysis of rural men's ontological stories and experiences of the 2016 Kaikōura/Waiiau earthquake, that could inform New Zealand disaster risk reduction policies and practices and contribute to international disaster management frameworks.

### **Research question:**

How can rural men's experiences of the Kaikōura/Waiiau earthquake contribute to disaster management, gender theory, policy and practice?

### **The research aims to:**

1. Explore and document rural men's experiences and perspectives of the Kaikōura/Waiiau earthquake.
2. Develop recommendations from rural men's 'talk' that may be usefully drawn on to inform disaster policy and practice.

Four key objectives have been developed to assist in answering the research question:

- a. *Document rural men's experiences of the Kaikōura/Waiiau earthquake.*
- b. *Explore and record the strengths rural men draw on to develop and implement coping, and recovery strategies.*
- c. *Examine and detail the challenges that rural men experience in relation to personal, social and financial recovery in disaster.*
- d. *Consider how rural men's experiences from the case study of the Kaikōura/Waiiau earthquake may be implemented into broader gender and disaster policy and practice in New Zealand, and elsewhere.*

## **Justification of Research**

Employing a gender lens when conducting disaster risk reduction research has yielded significant insights into the ways social constructions of gender can shape people's risk and vulnerabilities to disaster (Begum, 1993; Fordham, 1998, 2012; Houghton, 2009; Whittaker et al., 2016). Within the existing disaster literature, attention is given to normative understandings of gender, and the perception of socialised gender roles that can underpin accessibility to relevant disaster risk reduction information and necessary resources, such as evacuation warnings and financial capital (Bateman & Edwards, 2002; Fordham et al., 2006; Morrow & Enarson, 1996; Tyler & Fairbrother, 2018). Consideration is also extended to capturing the ways in which the socialisation of gender contributes to individual and community capabilities, including how people react, respond and recover from disaster events (Akerkar & Fordham, 2017; Eriksen, 2014; Parkinson & Zara,

2016). However, gender and disaster research is still relatively new when compared with the broader field of disaster scholarship and has been regarded as an unnecessary lens of analysis (Fordham & Meyreles, 2014; Myers, 1994). Furthermore, gender analysis of disasters has centred on women's experiences, and while this inquiry into women's stories of disasters has been necessary, gender and disaster often corresponds to the interests and concerns of women. The focus on women in gender and disaster scholarship suggests that more research is needed concerning men's personal experiences of disasters.

The emerging body of scholarship on men and disasters, highlights key themes associated with men's poor health outcomes in disaster. Men's well-being is broadly discussed within the research literature, where it is suggested that men adopt unhealthy ways of coping with distress, avoid seeking help and put themselves at risk (Parkinson & Zara, 2016; Tyler & Fairbrother, 2013). Such actions, through compromising men's well-being can also hinder disaster recovery. It is further argued that sets of understandings about hegemonic masculinities encourage men to minimise personal experiences, suppress signs of struggle (Zara et al., 2016), and engage in behaviours that effectively work to silence men's personal accounts of disaster.

Discourses about hegemonic masculinity underpin research on men and disaster. Masculinities are understood to be socially constructed, plural and contextually situated positions within the gender hierarchy (Connell, 2000, 2014; Gorman-Murray & Hopkins, 2014). It is contended that public understandings about masculinity shape the ways in which men behave, respond and ultimately, how they make sense of disasters (Akerkar & Fordham, 2017; Enarson, 2016; Pacholok, 2009; Pease, 2014; Tyler & Fairbrother, 2013, 2018). Therefore, in order to explore how sets of understandings about masculinities construct men's disaster realities, and influence their recovery trajectories, attention to the places and spaces in which men are situated, is required.

The justification for this project developed from a review of evidence-based literature on gender and disasters that highlighted the need for further research in regard to men's personal views and experiences of disaster events. This thesis contributes to this developing field of inquiry, by presenting a contextually relevant analysis of rural men's ontological stories of the Kaikōura/Waiiau earthquake. Situated along 'The Ring of Fire' and within the South Pacific Ocean, New Zealand is highly susceptible to seismic, geological and climate hazards. In recent times, Aotearoa New Zealand has experienced disasters caused by earthquakes, volcanic eruptions, landslides, and extreme weather phenomena, as sequential or cascading events. In response to the increasingly complex hazard landscapes, New Zealand has developed a culture of hazard awareness and disaster preparation (The Earthquake Commission [EQC], n.d; National Emergency Management Agency [NEMA], 2020). Yet, inquiry into the ways that social factors such as age, gender and sexuality, can shape disaster management and recovery, lags behind hazard management initiatives led



by the physical and technical sciences. In particular, there is a need for more research examining gender relations within the context of disasters in New Zealand. This doctoral thesis aims to expand current knowledge on how disasters are understood at the local level, by examining how rural men's place-based gender identities subtly influence the ways in which men respond and recover. Research findings will contribute to new knowledge regarding rural men's understandings of disasters as well as the broader international body of literature on men and disasters.

## **Contribution to the Literature**

This research contributes to the literature on gender and disasters by evidencing how rural men's personal realities of disasters are constructed in place, space and time. Contributions are also made to the broader understanding of disaster scholarship by offering theoretical perspectives on the gendered body politic (Gatens, 1996; Rushton et al., 2020), to illustrate how disaster discourses are shaped by forms of governmentality, which reflect heterosexual able bodied male voices. Research outcomes demonstrate the intrinsic interrelations between place and masculine identity in shaping men's personal meanings of the Kaikōura/Waiiau earthquake. Drawing on social theories offered by Bourdieu (1977, 1984, 1986, 1989, 1990a,b), such as field, capital, *habitus* and *doxa*, and literatures on masculinities (Connell, 2005; Keppel, 2014; Law et al., 1999; Phillips, 1987), this thesis informs knowledges on disasters at the micro level, by capturing the unseen intricacies of rural men's post-disaster life worlds embedded in place. Using field as a geographical metaphor for place enables an examination of the ways understandings of a form of rural hegemonic masculinity governed men's responses to, and effected their coping strategies in dealing with, their post-disaster environments. An extension of space and temporalities is also provided by drawing on ideas from Doreen Massey (1994, 2005) and Karen Davies (1990, 1994, 2001) to illustrate the ways disaster events disrupt life courses and problematise the day-to-day realities of those impacted, across multiple temporalities long after the immediate danger has passed. Advancing thinking on space and time proposes that personal narratives are spatially and temporally situated and shaped by physical, social and metaphysical spaces. Such spaces can problematise psychosocial spaces and in effect, recovery.

Detailed examination of the interview material suggests that storied accounts of disaster are discursively produced and situated spatially and temporally. The spatial elements of stories present opportunities to examine the multiple social, physical and metaphysical spaces, relevant to the natural hazard events, in which individuals are situated. In-depth analysis of the connection between space(s), temporalities

and place provides access to knowledge concerning disaster response and recovery experiences. The significance of recognising the multiplicity of space(s), place(s) and temporalities within personal stories of disaster, can facilitate further development of, and additional detail to, the subtleties and complexities of disaster recovery within national and international disaster policies and practices. These insights can also contribute to disrupting the gendered body politic (Gatens, 1996; Rushton et al., 2020) within disaster management and scholarship, that prioritises objective ways of knowing. The research design for this thesis was developed to guide an exploration of the intricate and unseen complexities of rural men's disaster realities.

## Research Design

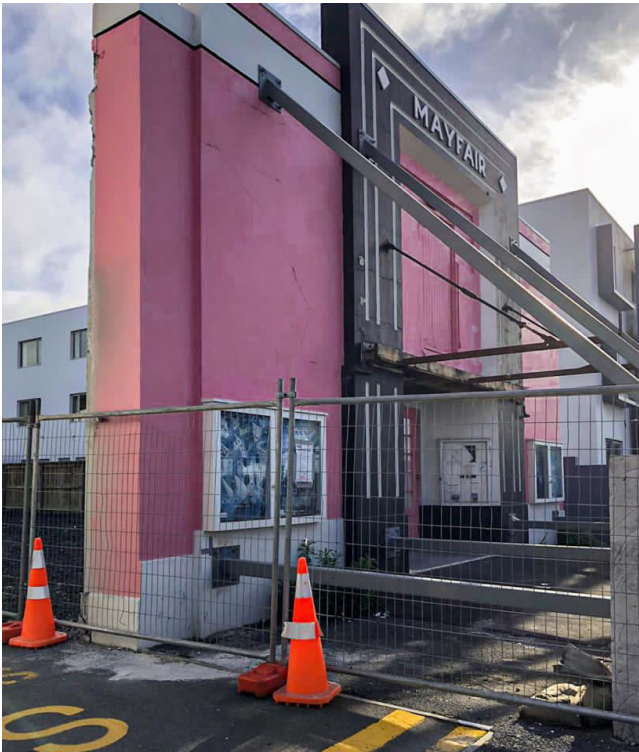
The qualitative research design presented in this thesis uses a feminist epistemology coupled with a feminist methodology. Feminist epistemological positionings and methodologies aim to showcase silenced voices, by exploring the role of gendered social structures and intersectional identities in shaping realities. An interpretivist ontology that recognises the social structuring of experience is used in conjunction with feminist research practices. Through advertising the study on social media, community notice boards, in local newspapers and newsletters and utilising personal networks, nineteen men across North Canterbury and Marlborough volunteered to share their experiences of the Kaikōura/Waiiau earthquake. Participants comprised of men aged from 35-75 years, who were pākehā<sup>4</sup>, Māori<sup>5</sup> and a migrant from the UK. The men were respectively, self-employed, employed by the crown, private sector or retired. Participants' paid work ranged from emergency management, civil service and emergency services positions to construction and vineyard work, so both 'white' and 'blue' collar workers took part in the research. Data gathering occurred during face-to-face meetings. Dialogical techniques were used during semi-structured interviews to facilitate the co-construction of knowledge and minimise power imbalances between the researcher and participant. Men's stories were analysed using thematic analysis and further interrogated using the theoretical perspectives of Pierre Bourdieu (1977, 1984, 1986, 1989, 1990a,b), Karen Davies (1990, 1994, 2001) and Doreen Massey (1994, 2005). Consideration of reflective practices, such as member checking (Cope, 2010; Hesse-Biber & Piatelli, 2012), the ways differences between participant and researcher co-produce knowledges (Valentine, 2002) and how the researcher is situated throughout the research process (Haraway, 1991; Katz, 1994; Marshall, 2002) are examined. The research design was developed to be contextually relevant and be conducive to identifying the gendered organisation of rural men's personal narratives of the 2016 Kaikōura/Waiiau earthquake.

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4 The term Pākehā can be understood to be a "New Zealander of European descent, originally applied to English-speaking Europeans living in Aotearoa/New Zealand" (Te Aka Online Māori Dictionary, n.d). It is this definition of the term Pākehā that is applied within the literature on New Zealand masculinities (Berg, 1994; Jackson et al., 2009; King, 1988; Phillips, 1987), which reflects the historic migration of many European people, beginning in the early 19th century, predominately Scottish, English, Welsh and Irish to New Zealand (Constantine, 2003; Gordon et al., 2004; King, 2003; Phillips, 1987; Phillips & Hearn, 2008). It is within this context that the term Pākehā is used within the thesis.

5 Māori are indigenous people of Aotearoa, New Zealand.

## Situating the Research: The Kaikōura/Waiiau Earthquake

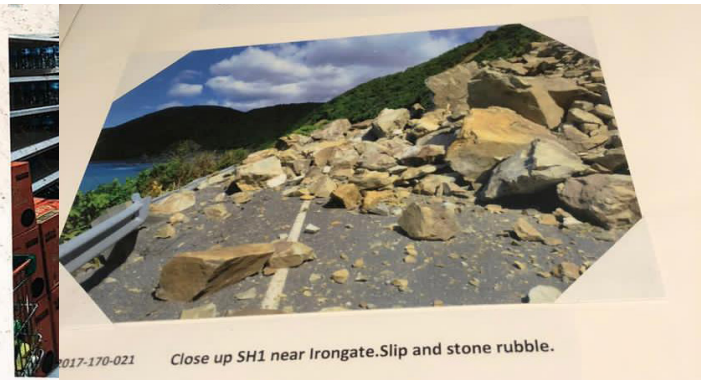


*Figure 1: Mayfair Theatre, Kaikōura.  
Image: A Rushton*

The research was conducted in the North Canterbury and Marlborough regions of the South Island of Aotearoa, New Zealand. Driving across the pastoral landscapes, it was evident that the natural and built environments had experienced huge stresses. At the time of data gathering, two years on from the earthquake, some properties were still boarded up and fenced. The art deco façade of the Mayfair Kaikōura Community Theatre for example, along Kaikōura’s esplanade (depicted in Figure 1), was being held up by a wooden frame, while the structure of the theatre building had been demolished. The theatre has only recently been rebuilt and reopened to the public (NZ Herald, 2020). State Highway One, leading into Kaikōura was still undergoing major repairs and strengthening, some shops remained derelict and photos of the damaged infrastructure and interiors were displayed along the high-street and within the Kaikōura museum (see Figures 2 and 3).



**Figure 2:** Photos of interior damage in stores, displayed along Kaikōura esplanade.  
**Image:** A Rushton



**Figure 3:** Photos showing the impacts of the earthquake on the built and natural environment, displayed in the Kaikōura museum.  
**Image:** A Rushton

Although the Kaikōura earthquake was the official name provided for the seismic sequence (Gledhill, 2017), during research interviews, some participants referred to the event as the Waiau earthquake. Some men commented that small rural towns in the region were forgotten about because everyone regarded the earthquake as only impacting Kaikōura and Wellington. It became clear that some members of the small rural communities disagreed with the official naming of the earthquake. In order to acknowledge the personal views of those participants residing in the small communities in North Canterbury and Marlborough, the seismic event is referred to as the Kaikōura/Waiiau earthquake in this thesis.

The Kaikōura/Waiiau earthquake struck in the early hours of 14th November 2016. The earthquake registered as a magnitude 7.8 and was felt throughout Aotearoa New Zealand. The epicentre was located 15km North-East of the small rural town of Culverden, and the initial earthquake created a sequence of over 20 fault ruptures across the South and North Islands (GeoNet, 2016). The earthquake sequence has been recognised as one of the most complex earthquakes ever recorded with modern technology (GeoNet, 2016; Gusman et al., 2018). The ferocity of the ground motion generated a six-metre high tsunami (Power et al., 2017), more than 80,000 landslips and significant damage to lifelines and infrastructure across North Canterbury, Marlborough and to a lesser extent, Wellington (Balfour, 2016; GeoNet, 2016; NEMA, 2016). Due to landslips and damaged roading, many rural communities, including the town of Kaikōura were completely cut off. The isolation of communities problematised response efforts, as supplies and resources needed to be transported by air, and in some instances, sea (Feek & Young, 2016; Phibbs et al., 2018). The seismic event was further compounded by frequent aftershocks (Cesca et al., 2017; GeoNet, 2016; Huffadine, 2018) and a series of extreme weather events (Marlborough District Council, 2016a,b,c). The overall insurance cost of the Kaikōura/Waiiau earthquake has been estimated to be over NZ\$2 billion (Insurance Council New Zealand [ICNZ], 2018; Reinsurance news, 2017). This figure includes residential insurance payments by the Earthquake Commission (EQC)<sup>6</sup> to 38,000 residents for property repairs (EQC, 2019). Moreover, South Island localities

<sup>6</sup> The Earthquake Commission (EQC) is a crown entity that provides earthquake insurance across New Zealand.

experienced significant losses in tourism, resulting in an overall decrease in tourist revenue and employment across the Hurunui, Canterbury and Marlborough regions (McDonald et al., 2017; Stevenson et al., 2017).

The disaster resulted in two fatalities and 580 reported injuries (Accident Compensation Corporation [ACC], 2017). Concerns were raised by health professionals and government officials about the psychosocial impacts of the earthquake (Gluckman, 2016). As contemporary health data indicates, the psychosocial effects of significant earthquakes have been possible contributors to increased incidences of suicide in New Zealand (Office of the Chief Coroner of New Zealand, 2018; Stylianou, 2012). While health services were in demand in the aftermath of the earthquake (Brown, 2018), which prompted the provision of some health services and resources to the affected locales (Curtis, 2016; Mental Health Foundation, 2020), there was still significant delays in deploying adequate psychosocial support to rural communities (Broughton, 2017; Meier, 2017; Phibbs et al., 2018). It is argued that the capital city of Wellington received more public attention, financial capital and resources in regard to managing the effects of the Kaikōura/Waiiau earthquake, leaving the significantly impacted communities in the South Island with insufficient recognition and support from the National Government, private sector and science community (Phibbs et al., 2018).

The overview of the earthquake sequence, and the cascading impacts, provides the context for the multiplicity of social and physical factors that could affect individuals in the interim, and over the course of an extended period. The backdrop of the Kaikōura/Waiiau earthquake informs the rationale for this doctoral research, to further understand the links between stressors, such as property damage and disrupted employment, and sets of understandings about rural New Zealand hegemonic masculinity, that underpin and contribute to rural men's stories of disasters.

## **Chapter Outlines**

An outline of thesis chapters is presented in this section, including a synopsis of how data analysis, and discussions in Chapters Four, Five and Six, contribute to answering the research question: How can rural men's experiences of the Kaikōura/Waiiau earthquake contribute to disaster management, gender theory, policy and practice? Research participants' narratives are drawn on to illustrate key themes that relate to the ways men construct and reflect upon their experiences of the Kaikōura/Waiiau earthquake. Research analysis and outcomes are presented in a sequence of journal articles, that are informed by the established geography, social theory, gender and disaster literature. Due to the nature of thesis by publication, there may be some repetition throughout the thesis. The first three articles, presented in Chapter Two, Four and Five have been published in peer-reviewed journals, and Chapter Six is currently undergoing peer-review.

## **Chapter Two; Paper One and Supplemental Literature Review**

Chapter Two presents a review of the current peer-reviewed literature on men and disasters in the form of a published literature review article and a supplementary literature review. The review chapter explores interdisciplinary literature and examines geography, climate change, gender and disasters publications as well as international and national disaster risk reduction frameworks and policies. An overview of contextually relevant research and knowledge is also offered concerning masculinities, New Zealand masculinities and men's health. Key themes are drawn from the review to support the rationale for further research into the ways in which gender relations shape disasters, as well as people's responses to, and experiences of natural hazard events. The published peer-review article situated in the first section of this chapter draws on theoretical ideas about the body politic (Gatens, 1996), to suggest disaster management and scholarship is underpinned by a masculine body politic that marginalises the voices of women, LGBTQIA+ and some men in disasters, while simultaneously silencing their personal knowledges and experiences.

## **Chapter Three; Methodology**

In Chapter Three, the practices and processes through which the research has been developed are presented. The chapter begins with a detailed discussion of the feminist epistemological, social constructionist and interpretivist positions that frame the thesis. A qualitative feminist methodology is described and the ways the researcher, the interview environment, gender relations and participant's insights contribute to constituting knowledge about the Kaikōura/Waiiau earthquake are outlined. The research methods are illustrated and the procedures for recruitment, conducting interviews, and transcription of interview material described. The ethical implications of conducting qualitative research on sensitive topics and potentially vulnerable participants is considered. Attention is also given to the methods adopted to protect the confidentiality of participants. An outline of the analytical process is provided, along with the rationale for choosing a thematic approach to analyse men's stories of the Kaikōura/Waiiau earthquake. The final section of the methodology chapter introduces the theoretical perspectives that underpin the analysis and interpretation of the interview material. Theoretical insights are informed by the works of Moira Gatens (1996), Pierre Bourdieu (1977, 1984, 1986, 1989, 1990a,b), Karen Davies (1990, 1994, 2001) and Doreen Massey (1994, 2005).

## **Chapter Four; Paper Two**

Chapter Four includes a research article that has recently been published in *Social and Cultural Geography*. This paper draws attention to how masculinities and masculine identities are constructed in relation to place, which underpinned rural men's response to, and recovery from the Kaikōura/Waiiau earthquake. Consideration is given to the ways the *Southern Man*, a male stereotype associated with New Zealand's South Island, constitutes a form of rural hegemonic masculinity, that has shaped local meanings associated with the earthquakes and its aftermath. Bourdieu's theoretical concepts of field, *habitus*, capital and doxa inform discussions about valued and strategic masculine behaviours, skills and practices that men adopted in the aftermath of the earthquake. Moreover, the paper presented in Chapter Four contributes to the disaster literature by advancing an understanding of field (Bourdieu, 1984, 1990b) as a metaphor for place. Through bringing together sociological and geographical ideas, the metaphor provides an opportunity to facilitate understanding about the relationship between economic, cultural, political and social processes in shaping experience and human interaction. The research analysis in this chapter is framed by four themes relating to *sense of place*. *Sense of community* is the first theme explored and encompasses men's attachment to place and community. The second theme is *us vs them*, which critically examines the ways in which conflict arose between differing masculine groupings post-earthquake. *Identities in place*, the third theme, relates to how participants adopted valued forms of New Zealand rural hegemonic masculinity, that encompassed using forms of capital to respond to, and facilitate recovery from the Kaikōura/Waiiau earthquake. The final theme, *the place of landscape* draws attention to research participants' sense of place in relation to the natural environment. Stories are presented that illustrate how changes in the landscape can hinder recovery or facilitate a sense of place in spaces impacted by disaster.

## **Chapter Five; Paper Three**

Chapter Five contains a research article that has been published in *Gender, Place and Culture*. The chapter draws on geographies of emotion to explore the ways men's emotions, and the expression of them, are embedded in place. *Silences*, *emotional work* and *temporality* were identified within the interview transcripts as key themes in participants' talk of the Kaikōura/Waiiau earthquake. Rural men's narratives of emotional work highlight how additional labour was required for men to successfully manage and adapt to changed environments. Silences relate to the ways in which research participants actively conceal their emotional distress and trauma, as well as stifle public disclosure of personal challenges posed by the earthquake, in order to maintain and/or align their identities with forms of hegemonic masculinity. A commentary on the temporalities of emotion is presented that illustrates how emotions and trauma can continually manifest in rural men's lives which can affect their day-to-day realities.

Sets of understandings of rural New Zealand hegemonic masculinity and gendered ideas about displaying emotions are outlined and drawn on to inform analysis of men's emotions in disaster narratives. Geographies of emotion (Anderson & Smith, 2001; Davidson & Milligan, 2004), and Bourdieu's (1977, 1990a) theories of *habitus* and bodily hexis frame the examination of how men express and navigate their

emotions in regard to the Kaikōura/Waiiau earthquake. An argument is presented that while men may work hard to minimise the expression of emotion, subtle emotional cues embedded in research participants' earthquake stories suggest that they are still contending with emotions resulting from trauma generated by the 2016 Kaikōura/Waiiau earthquake.

### **Chapter Six; Paper Four**

The final research article offered in Chapter Six, uses a bricolage of mobilities, temporalities and spaces to frame an analysis of men's stories of the Kaikōura/Waiiau earthquake. The chapter extends geographic perspectives of space and temporality through illustrating how rural men's realities post-earthquake continue to be governed by unseen processes and activities related to the disaster event. A review of current understandings of space and temporality is presented, coupled with an introduction to, and interpretation of mobile metaphysical space(s) and process time. An examination of men's talk has been enhanced by using the concept of space-time in metaphysical and mobile forms to inform analysis. The ways in which research participants' stories of the Kaikōura/Waiiau earthquake are constituted through multiple overlapping metaphysical, social and physical spaces are highlighted in this chapter. An argument is advanced that geography and disaster scholarship should adopt understandings of metaphysical space and process time in order to advance analysis of the unseen complexities of individual disaster realities. The chapter concludes with attention drawn to how examining metaphysical spaces in disasters can inform disaster response and recovery planning, policies and actions. This research article has been submitted to *Transactions of the Institute of British Geographers* for peer-review.

### **Chapter Seven; Conclusion**

The concluding chapter of the thesis summarises chapter discussions, the use of a feminist methodology and the application of theories from Gatens (1996), Bourdieu (1977, 1984, 1986, 1989, 1990a,b), Davies (1990,1994, 2001) and Massey (1994, 2005) that enabled a critical examination of participants' talk. A synthesis of research findings follows, which includes discussions of mobile spaces and temporalities, place and rural hegemonic masculinity and men's emotions in disaster. The research question and objectives are revisited, and the importance of capturing the ways in which sets of understandings about rural New Zealand hegemonic masculinity inform men's post-disaster realities are highlighted.

The research illustrates the importance of understanding the role of place(s) in disasters, and traces how multiple spaces and temporalities inform levels of vulnerability, capacity and recovery. The principal argument interwoven through the thesis is that these spaces are mobile and are continually temporally re-shaped. Fundamentally, the spaces that individuals operate and move within and across, are influenced by the *habitus* in place(s). Through drawing on a contextually relevant masculinity, the research demonstrates that understanding the role of gender in constructing places, spaces, mobilities and temporalities as well as personal responses to, and recovery from disasters, requires further research attention. The thesis contributes to the disaster literature by extending the theoretical lens of the body politic (Gatens, 1996),



fields, *habitus*, bodily hexis, capitals and doxa (Bourdieu, 1977, 1984, 1986, 1989, 1990a,b), as well as the literatures concerning emotional geographies (Anderson & Smith, 2001; Bondi, 2005a; Convery et al., 2008; Sharp, 2009; Smith et al., 2009), sense of place (Block et al., 2019; Chamlee-Wright & Storr, 2009; Cretney & Bond, 2017), space (Massey, 1994, 2005) and time (Davies, 1990, 1994, 2001; Hägerstrand, 1970, 1985), by capturing the ways sets of understandings about masculinities shaped rural men's realities of the 2016, 7.8 magnitude Kaikōura/Waiiau earthquake. The chapter concludes with an overview of the implications of research outcomes for disaster risk reduction policy and practice, followed by an outline of the research limitations and directions for further study.

In summary, this doctoral thesis aims to present an analysis of rural men's accounts of the 7.8 magnitude Kaikōura/Waiiau earthquake, in order to highlight insights into the personal and gendered impacts of disasters on men. The research may usefully inform New Zealand's development of national disaster management policies and practices through drawing attention to the need for gender sensitive disaster risk reduction strategies and indicators. Understandings about men's needs and challenges in disasters, may also be relevant for other nations and global non-governmental organisations to consider when developing disaster risk reduction frameworks in other cultural contexts. Finally, the thesis adds to the developing body of disaster literature on gender, men and masculinities. This literature is critically reviewed in the next section of the thesis, Chapter Two.

# 2

## **Men, Masculinities and Disaster: Emerging Knowledges**

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*“Fundamental to an understanding of disasters, and thus of how DRR should be maximised, is the fact that women and men experience disasters differently”  
Maureen Fordham (2012, p 424).*

The doctoral research presented in this thesis is interdisciplinary, spanning the fields of Human Geography, disasters and gender studies. This chapter offers an examination of the relevant bodies of literature that have informed the development of this thesis. The chapter is split into two components to adhere to the requirements of a thesis by publication<sup>7</sup>. In the first section of the chapter, a published literature review article of defined scope is presented, while a detailed examination of literature that is relevant to the final thesis arguments comprises the second section of the chapter. The published literature review traces the development of gender and disaster scholarship, and presents an argument pertaining to the ways in which disaster policy and practice is underpinned by a gendered body politic that represents an abled bodied, heterosexual man. A discussion of ways in which the gendered body politic operates within disaster management and scholarship justifies the initial focus on women in gender and disaster research and sets up the rationale for investigating men and disaster. Understandings about the gendered body politic are also extended into the supplementary literature review in order to interrogate the ways that the voices of some men are silenced in disaster research, policy and practice. The supplementary literature review follows on from the published literature article presented in the first part of this chapter and covers scholarship that sits outside of the scope of the published article. These writings that supplement the published literature review article concern scholarship on geography, masculinities and the wider discussions on men and disaster, including men’s health, the impacts of climate change on men and research focusing on emergency responders.

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<sup>7</sup> Some literature described within Articles One, Two, Three and Four of this thesis, is also presented within this chapter, therefore there is some repetition of literature throughout the thesis.

The article presented in this chapter was an invited publication, published in the *International Journal for Disaster Risk Reduction* within a special issue on Gender and Resilience. The paper was submitted on 26<sup>th</sup> November 2019 and after revisions, was accepted on 4<sup>th</sup> May 2020. The article is published as:

Rushton, A., Phibbs, S., Kenney, C., & Anderson, C. (2020). The gendered body politic in disaster policy and practice. *International Journal of Disaster Risk Reduction*, 47, 101648.  
<https://doi.org/10.1016/j.ijdr.2020.101648>

## **The Gendered Body Politic in Disaster Policy and Practice**

### **Abstract**

The field of gender and disasters emerged from the notion that a disaster is a physically and socially constructed event. Recognition that women's position in society and the home increases vulnerabilities to disasters has led to the development and application of gender in disaster policy and practice over the last three decades. Gender research has been important to ensure women's needs are recognised and assistance provided in an appropriate manner within disaster contexts. However, gender and disaster has become synonymous with the interests and concerns of women due to enduring structural inequalities that extend into disaster management. Drawing on sets of understandings about the body politic within social and political theory, which considers how the male body underpins sets of understandings about the 'neutral,' idealised gender, this paper reviews how an inclusive understanding of gender and disasters may be developed through considering the strengths of, and challenges for, men. There has been limited analyses of the broader perceptions and personal experiences of men impacted by disasters. Therefore, expanding this scholarship through an analysis of masculinity will provide a foundation for understanding men's stories and experiences of disaster.

**Keywords:** Gender, disaster, DRR, women, men, masculinity

### **Introduction**

Attention to gender within the context of disaster resulted from challenges to essentialist discourses and practices that tended to naturalise gender in sets of understandings of biology. Drawing on key ideas in feminist scholarship (Butler, 1990; Haraway, 2001), Fordham (1998) and Enarson (1998) amongst others identified socially and culturally specific gender conventions were placing women in the global North and South at risk. Subsequent studies of women's disaster experiences highlighted areas of discrimination, exploitation and hardship resulting in change in DRR practices, including the introduction of initiatives to support women in preparing, responding and recovering from disasters. However, focused attention on women has created a gap in the literature pertaining to men's roles, perceptions and personal experiences. Whilst disasters have historically been narrated from the perspective of men, they have become "invisible as gendered actors in most disaster studies" (Enarson & Pease, 2016, p. 9). Consequently, there has been little research examining how men are personally affected by disaster. This article reviews the development of gender in disasters scholarship and considers drivers under-pinning the need for a contemporary focus on the gendered experiences of men. This paper focuses on the gender binary of women and men; however, it is important to acknowledge crucial research on transgender and genderqueer individuals which trouble dualistic understandings of gender (see Balgos et al., 2012; Gaillard, 2011; Gorman-Murray et al., 2018).

## **The Body Politic in Disaster Policy and Practice**

Disaster research has identified that social conditions, rather than the physical elements of disaster, create vulnerabilities to natural hazard events (Blaikie et al., 1994; O'Keefe et al., 1976). Development scholars, whose work focuses on ideas associated with alleviating inequality and poverty, noted that although socioeconomic progress and disasters coincide, there has been minimal research exploring the economic impacts and implications of disasters for women (Bradshaw, 2013; Morrow & Enarson, 1996). Thus, feminist scholars (Begum, 1993; Fisher, 2010; Fothergill, 2004; Krishnaraj, 1997) documented women's experiences and identified that women are less likely to have access to resources and more likely to rely on state or Non-Government Organisation assistance post-disaster. A lack of attention to women's needs in disaster contexts may also be traced back to biases embedded within the social and political fields governing disaster preparedness and response. The marginalisation of women's disaster needs and exclusion of women's voices in public spheres pertaining to disasters reflect the influences of the body politic.

Moira Gatens (1996) explores the way the body politic within social and political theory is constituted through institutionalised exclusions that are at work in the theoretical and political field. Gatens suggests that the 'neutral' body of social and political theory is implicitly coded as male, heterosexual and able bodied, thereby excluding women (Gatens, 1996) and some men (Connell, 1995) from the body politic. A lack of attention to issues of power (Fothergill, 1998) including sexual violence (Enarson et al., 2007), women's difficulties in accessing resources (Enarson et al., 2007), assumptions about the constitution of the family (Morrow & Enarson, 1996) such as the expectation that the head of the household is male (Thurnheer, 2009) as well as a lack of attention to maternal and reproductive health (Cutter, 1995) illustrate how the body politic within policies governing DRR are constituted through a series of exclusions that work to disadvantage women. This under-representation of women in disaster research and policymaking becomes important when initiatives are developed in the area of service provision and acceptability. Previous research documenting how women are 'othered' in policies and practices governing disaster response are explored in greater detail in the following section. Since the 1990s feminist scholars (Fordham, 1998; Enarson, 1998; Begum, 1993; Krishnaraj, 1997) emphasised the importance of examining women's experiences of disasters. Enarson et al. (2007) identified that women are excluded from various levels of DRR, preparedness and response planning, yet in disaster contexts can have greater needs and receive the least assistance. Women, particularly in low-income countries are more likely to be undernourished, have little access to resources (Blaikie et al., 2004), less likely to be educated, to have land, bargaining (Bankoff et al., 2004) or decision-making power (Fothergill, 1998) are more likely to rent, need medical services, and be at risk of abuse (Houghton, 2009). Women's unpaid and informal work has often been neglected and their contributions to disaster responses, undervalued (Fordham, 1998; Fothergill, 1998).

There was a significant gender disparity in mortality following the 2004 Indian Ocean Tsunami. Telford et al. (2006) reported that women died at a higher rate of between 1.2-2.1 times more than men. This tsunami highlighted the risks and restrictions of women in low-income countries prior to and following

the tsunami. Explanations were advanced that naturalised the high death toll of women (Neumayer & Plümper, 2007) however, feminist scholars argued against this biological essentialism (Ruwanpura, 2008). Ignoring the gendered social constructions that increase women's risk in disaster, effectively accepts the heightened risk women face by overlooking possibilities for change. One way in which that demonstrates how women are excluded, thereby increasing their risk post-disaster is how they struggled to gain compensation and cash transfers from state agencies in Sri Lanka as these disbursements were paid to the eldest man of a household (Thurnheer, 2009). Excluding women from accessing resources has also been documented in the developed world as Morrow and Enarson (Morrow & Enarson, 1996) identified that following Hurricane Andrew in Florida, some programs based on patriarchal family ideology ensured female-headed households could not access housing or financial assistance. Maternal and reproductive health is another concern for women in disasters, especially for women living in poverty (Begum, 1993; Cutter, 1995). Begum (1993), for example, documented her experience regarding the lack of culturally appropriate care in Bangladesh. Analysing violence following disaster also became a priority subsequent to researchers' identifying that sexual and domestic abuse against women significantly increases (Houghton, 2009). A potential explanation for the exclusion of concerns impacting women, such as maternal health and domestic violence, lies in the fact that the 'neutral' body politic, which informs disaster preparedness and response policy, is still implicitly male.

### **Women as Active Agents**

Recent research has recognised that women are active agents in DRR; they are often the first responders (Scanlon, 1998), community leaders and communicators post-disaster (Fordham, 2004). Kenney (2015) provides an example of five local Māori women, who following the 2010–2011 Christchurch earthquakes collaborated to aid elderly residents who required assistance. Similarly, Women of the Storm, were a group of 130 women who persuaded US Congress to visit New Orleans following Hurricane Katrina, influencing "federal policy, including the passage of an emergency-spending bill that brought billions ... in aid to the Gulf Coast" (David, 2010, p. 257). A further exemplar is the New Zealand National Council for Women's project: Women's Voices, documenting women's response and recovery efforts following the Christchurch earthquakes (Du Plessis et al., 2015). The project demonstrated the importance of informal networks amongst women and how women used contacts to aid themselves and others in post-quake Christchurch.

The Gender and Disaster Network (GDN) has driven research on women's disaster experiences. The network is an online platform designed to share and build gender and disaster research to address gender concerns in disaster policy and practice (Bradshaw, 2013). The 2004 International Gender Equality and disaster risk reduction (DRR) Workshop in Honolulu also strategised for the inclusion of gender in DRR planning; advocating for a gender analysis in disaster research and policy as well as the inclusion of gender in the Hyogo Framework for Action in 2005 (Anderson, 2009). The subsequent Sendai Framework for DRR (UNDRR, 2015b), which sets out the global targets and priorities for action until 2030, has a strengthened emphasis on gender, with women-focused points for consideration embedded throughout the framework.

The formation of UN Women has brought together the UN development fund for women (UNIFEM) and gender focal points from the UN Development Programme (UNDP), UN Environment Programme (UNEP), and other UN organisations, to advocate for gender equality by working with governments, agencies, services and programs to ensure that women and girls are supported and represented. UNDRR (formerly UNISDR) (UNDRR, 2015c) published a report acknowledging women as key actors in DRR; including examples of building disaster resilience led by women from various countries and using a range of approaches. These include a grassroots agriculture initiative in Honduras (Bengochea et al., 2015); reforestation and rainwater harvesting by fisherwomen in Guatemala (Rodriguez Blandón & Araujo, 2015); and the formation of the Japan Women's Network for Disaster Risk Reduction (Domoto, 2015). The common theme throughout the 86-page report is the need to shift from representing women as dependants to recognising women as key actors in DRR.

### **Uncertain Progress**

Although there has been momentum publicising women's experiences, capabilities and vulnerabilities in disasters, recognition of gender and the incorporation of gender-specific objectives in policy and practice has been slow (Anderson, 2009). Agencies and governments continue to ignore women's vulnerabilities and capacities, particularly women in low-income countries, (Clifton & Gell, 2001; Fordham, 2012). Disaster research that does not provide a gender analysis enforces gender inequality and the subordination of women (Enarson & Fordham, 2001; Fisher, 2010). A recent humanitarian crisis which illustrates this ambivalence, is the Ebola epidemic in Sierra Leone, where women had access to food but not fuel or water, forcing them to leave quarantined areas to fetch resources. As this policy contributed to the spread of the disease, adjustments had to be made to ensure women had access to essential resources (UN Women, 2016). This case demonstrates that gender differences may be accommodated in crises through changes to local policies and practices that enable women to access resources. However, further changes to DRR policies are required to ensure ongoing recognition of women's roles/work in family and the community. While policymakers may claim that recovery projects are targeted to bring empowerment to women, they continue to exclude wider equality objectives (Bradshaw & Fordham, 2015). Relevant to gender and disasters is how culturally specific stereotypes of women are embedded in policies and practices that work to enhance male privilege and perpetuate patriarchal systems (Bradshaw, 2013). Although most gender and disaster research is written in the context of low-income countries, Akerkar and Fordham's (2017) study of two flood events in the UK provide an example of the government of a high-income country omitting gender data in relation to disaster response and risk reduction decision-making. Although this study primarily focuses upon the different experiences between women and men, study results challenge the existing assumption that different gendered experiences of disasters only happen outside of high-income countries. Akerkar and Fordham's study provides an illustration of how a 'neutral' or gender-blind body politic implicitly reflects the assumptions, experiences and concerns of men. The women in disasters literature developed through the recognition that women were not only poorer, less educated and had less

bargaining power particularly in low-income countries, but that their experiences of, and voices in disaster contexts were under-represented. Women were not included in the disaster cycle; thus, disaster policy did not reflect the diverse realities of individuals, families and communities. The work of gender scholars has been instrumental in providing a gender inclusive analysis of disaster research. However limited research into the experiences of gender minorities (Gaillard et al., 2017a,b; Gorman-Murray et al., 2016) and men in disasters has been conducted, thus a gap has formed in understandings of gender and disaster.

### **Towards an Understanding of Men in Disaster**

Since research on gender and disasters began, the majority of research on men's roles and experiences has been conducted in the context of emergency responders (Mishra, 2009; Pacholok, 2013), with a few studies on civilian men in disaster affected communities emerging recently (Dominelli, 2020; Enarson & Pease, 2016). Ideas from the literature on gender and masculinities are being formulated to try and understand men's behaviours, actions and experiences in crises. Like women, men are subject to socially constructed notions of gender (Connell, 1995; Mishra, 2009). Although the majority of men are situated in more socially advantaged positions than women (Fordham, 2012), they are also at risk from the dangerous consequences of disaster events (Parkinson & Zara, 2016). Despite limited qualitative research, an emergent theme is the expectations that men place upon themselves in disaster contexts (Mishra, 2009). An argument could also be made that some men are excluded from the able-bodied, heterosexual and hyper-masculine body politic that underpins disaster preparedness and response policy and practice. When considering men's experiences of disaster, it is important to examine and understand the concept of masculinities (Pease, 2014). Masculinities are the practices and processes of gender relations that require further understanding than the simplistic notion in which masculinity is equated with men (Pease, 2014). Masculinity studies developed from feminist and queer studies which contested sex role theory in which people's gender and identities were seen as biologically static and universal (Law et al., 1999). Connell (2000, 2005) enhanced understandings of masculinity by developing a theoretical framework that recognises not only interconnections between genders, but also how hegemonic masculinity and patriarchy is supported through social constructions of gender (Lorber & Farrell, 1991). While ideas of masculinity are historically, contextually, socially and culturally specific, Connell (2005) contends that men are encouraged to aspire to ideas of hegemonic masculinity through positioning themselves in relation to contemporary sets of understandings about what it means to be a man. Practices of hegemonic masculinity enable a small minority of men to maintain dominance over women, gender minorities and other men (Connell, 2005).

This section reviews the current literature available on men and disasters and presents an argument to widen attention to gender and disaster in DRR policy and practice. Akerkar and Fordham (2017) explored how masculinity contributes to understandings of home and community as well as individual coping strategies. Men's coping and recovery strategies are based on a sense of community, the degree of belief in oneself and social cohesion. The degree of belief in self for men, Akerkar and Fordham (2017) suggest is associated with a sense of control aligning with the 'strong bloke' stereotype (Connell, 2014). The 'strong



bloke' identity contributed to less men (55%) than women (72%) asking for help during the Gloucestershire Tewkesbury floods in 2007. New Zealand data following the Canterbury earthquakes identified that while women and men presented equally for medical treatment in the immediate aftermath of the earthquakes, in the weeks and months following, two thirds of those seeking help were women which suggests an under-representation of men seeking access to medical care (Johnston et al., 2014). These exemplars of men's under-representation in health seeking behaviours align with frontline responders' perspectives and actions, outlined in the responder literature, such as the importance of confidence in their own abilities, not appearing weak and therefore not seeking help. In times of emergency and uncertainty, 'normal' social behaviours are disrupted which puts masculinity "on the line' and its performance requires extra effort" (Pacholok, 2013, p. 29). A failure in work or in family responsibilities creates distinctive feelings of shame and embarrassment due to an "inability to live up to social expectations and fulfil obligations" (Klinenberg, 2002, p. 76). Orui et al. (2015) identified that the high male suicide rate following the 2011 Japanese earthquake and tsunami was due to loss of employment, resulting in a loss of control and feelings of failure as a provider. There are accounts from Hurricane Mitch (Bradshaw, 2013), the Grand Forks floods (Fothergill, 2004), Hurricane Katrina (Bradshaw, 2013) and the Black Saturday fires in Australia (Zara et al., 2016) of men refusing to evacuate and engaging in risk taking behaviours either to protect their homes or their sources of income. Not explicitly discussed in detail in the disaster literature, Connell (1995) and Kimmel (2010) argue there are strong relationships between masculine identity, self-esteem, employment and the expectations of men as providers. The role as protectors, closely aligned with the personal qualities of bravery and courage, is also evident within both the masculinity and disaster literature. Dangerous roles such as search and rescue are primarily undertaken by men (Fordham, 2012). There are accounts of men assuming the role of protector in disaster contexts; during Hurricane Andrew, Alway et al. (1998) identified that men physically shielded loved ones and stayed awake at night to watch for looters. Men worked long hours, in addition to their paid employment, clearing debris and repairing and rebuilding following the Grand Forks floods (2004). The 2009 Black Saturday bushfires in Victoria, Australia demonstrates the personal and societal expectation placed on men to be an emotionless, brave and decisive protector (Parkinson & Zara, 2016; Tyler & Fairbrother, 2013a). An explicit example of the ways the masculine body politic is embedded within social and political theory is the version of hegemonic masculinity incorporated into the Australian Government's "prepare, stay and defend" bushfire policy (Parkinson & Zara, 2016). Although receiving criticism (Tyler & Fairbrother, 2013a), this policy endorsed decisions to stay but also implicitly encouraged men to decide against evacuation in order to defend their homes and communities. The bushfire case study also highlighted that men who did not evacuate, suffered from long-term psychological and emotional turmoil (Pacholok, 2013). They took the losses personally and felt that they had failed to do their duty as a protector (Haynes et al., 2010; Parkinson & Zara, 2016).

Gender hierarchy depends upon public displays of courage and control that is heightened in emergency contexts (Parkinson & Zara, 2016). A female fire lieutenant following the 9/11 terrorist attack on New York city recalls male firefighters crying in her office yet not doing so in any of the male lieutenant's offices (Hagen & Carouba, 2002). Similarly, after Australia's Black Saturday bushfires people stated men should just 'get over it' and those who could not were labelled 'sensitive blokes,' implying they were not 'real men' (Parkinson & Zara, 2016). Furthermore, Alston (2017) identified following the fires, men wanted to quickly rebuild to publicly demonstrate that the fire had not won. The ideology of 'being a man' was not only evident in public life, but it also crossed over into the workspace. Parkinson and Zara (2016) note that there was a limit on how long men were 'allowed' to show/feel the effects of the fires. Employers did not always offer support or assistance and men working within emergency service roles were penalised if they struggled to cope. This emphasises that there are 'accepted' behaviours for men in post-disaster circumstances. These examples are among few studies that identify how gender hierarchy and hegemonic masculinity ideals, related to maintaining a controlled stoic, masculine image, can negatively influence men's experience of disasters. Hegemonic masculinity also helps to explain why men feel that it is important to not show signs of weakness or emotions that are associated with femininity in view of other men (Segal, 2007).

Hiding signs of weakness and presenting a stoic image may have contributed to the assumption that men cope well in disaster events, reflecting the lack of attention in research on men's mental and physical health following disaster. What has been written, although limited, has identified a delay in men presenting with health issues. Deferred access to treatment was seen following the 1990 North Wales floods (Fordham, 2012), the 1972 Wyoming Valley floods (Melick, 1978), the 2010–2011 Canterbury earthquakes (Johnston et al., 2014) and may have contributed to an increase in suicides in men following the 2011 Japanese earthquake and tsunami (Ouri et al., 2015). Men's health in disasters is poorly documented, often unseen and given low priority in disaster contexts, reinforced by a strong assumption that men's health is not adversely affected (Fordham, 2012), thereby reflecting the masculine body politic. Key themes in health and disasters, such as crying, drinking and social isolation, are evident in both the responder and non-responder literature (de Alwis, 2016; Pacholok, 2013; Parkinson & Zara, 2016). These themes are in contrast to hegemonic masculinity which privilege ideals of strength, detachment and control. Scholars have called this the 'price of privilege' given there are advantages and entitlements for men, yet showing emotion or weakness is not accepted (Dowd, 2010; Parkinson & Zara, 2016). There is a misconception of gendered risks post-disaster. Identifying and responding to the risks women face has taken precedence in the DRR literature due to women's subordinate position in the social hierarchy (Fordham, 2012); however, ideas about hegemonic masculinity have also contributed to the assumption that men are not at risk, a belief that is embedded in policy and practice. Men, for example, unlike women in post-tsunami Sri Lanka did not receive psychosocial support, which compounded an increase in alcohol and drug use amongst Sri Lankan men (de Alwis, 2016; Fordham et al., 2006). Humanitarian agencies focused mental health support for women, children and the elderly (Médecins Sans Frontières [MSF], 2012); however, large numbers of men became widowers and struggled

to cope as family caregivers with little or no support (Nikapota, 2006). Research identifying poor mental health among men in the years following disaster suggests that they should have access to psychosocial support as often men feel isolated and present delayed health effects through attempting to cope on their own (Fordham, 2012).

The global research on health highlights a literature gap regarding men's physical and mental health post-disaster. Disaster policy also has not addressed these issues. Moreover, the Sendai Framework for Disaster Risk Reduction (2015–2030) (UNDRR, 2015b) recognises how socially constructed sets of understandings about gender affect people pre- and post-disaster, however, gender is discussed only in relation to women. This silence around men is an example of how assumptions about the universal male body are embedded in disaster policy; in other words, women's concerns are specified precisely because they are excluded from the body politic. There is also no acknowledgement of men and gender and sexual minorities in the Sendai Framework. It is now recognised that gender identity can affect readiness, risk, recovery and resilience in disaster contexts (Akerkar & Fordham, 2017; Bradshaw & Fordham, 2015; Fothergill, 2004; Fordham, 2012; Pease, 2014), therefore it is evident that incorporating a comprehensive gender perspective into policy and practice is necessary. Neumayer and Plümper (2007) collated the first gendered disaster mortality statistics. Their findings demonstrated that women are more at risk of dying in a disaster with clear links identified between mortality and socioeconomic status. Some studies have approached disaster mortality differently: looking at specific natural hazard events has identified that men are more likely to die in flood (Salvati et al., 2018), landslide (Fitzgerald et al., 2010), Australian bushfire (Haynes et al., 2010; Pease, 2014) and heatwave (Enarson & Meyreles, 2004) events, potentially due to enacting riskier behaviours (Fitzgerald et al., 2010; Salvati et al., 2018). Literature on the 1995 Chicago (Klinenberg, 2002) and Los Angeles heatwaves between 1978 - 1998 (Enarson & Meyreles, 2004) indicate that single, older, African American men were most at risk during these hot weather events. Klinenberg attributes one of the reasons for excess mortality in men, to conventional models of masculinity that encourage independence, obligation and controlled emotions that negatively impact social networks and therefore support in old age. Heatwave mortality may also be relevant to the intersections of identity, such as being poor, African American and elderly (Klinenberg, 2002), which situate individuals in marginalised and therefore more vulnerable positions within the social hierarchy (Phibbs et al., 2018). While women and girls still have significantly higher mortality rates across all disasters than men and boys (Fordham & Meyreles, 2014), it is evident that fatalities in disaster events are strongly associated with social constructions of gender. Studies highlight significant gender differences in fatalities within and between disasters, therefore, there is cause to further examine reasons for this variance in mortality. What has also not been adequately investigated or presented in the disaster literature is an analysis of the different structural positions of the men who have died. Through attention to the intersections of identity such as men who were heterosexual, homosexual, black and able bodied for example, an analysis of gender could be conducted which provides a comprehensive understanding of how intersectional identities and socially constructed norms influence people's level of disaster risk.

## **Excluded from the Body Politic**

Socially constructed gender roles and the intersections of identity can be strongly associated with how hierarchical power structures and the body politic govern the ways people are positioned in society (Hesse-Biber, 2012). In emergency contexts, power structures which enforce inequality and marginalisation can be exacerbated (Dunn, 2016; Phibbs et al., 2018; Sherry, 2016). People with disabilities, for example, can face financial, social and physical constraints (Phibbs et al., 2015a; Sherry, 2016; Stough et al., 2017) and in disasters, are often excluded from emergency management plans (Kelman & Stough, 2015; Phibbs, 2015). Disabled men may also feel pressure to fulfil responsibilities associated with their masculine gender role, which becomes increasingly challenging with poor health (Dunn, 2016). Important to hegemonic masculinity is being able bodied, mentally and physically, therefore men with disabilities are positioned lower within the masculinity hierarchy in which men are situated in relation to each other. Men's cultural knowledge of hazards is often ignored, as Western European scientific knowledge is privileged (Bankoff, 2001). Western European elite men often have stronger connections with governments, organisations and stakeholders, which enables them to make decisions and control resources (Kelman & Stough, 2015). This was seen following the Christchurch and Kaikōura earthquakes, as Government and civil defence actors did not effectively communicate or liaise with Māori, who not only held local knowledge of effective disaster responses, but also had access to human and physical resources (Kenney & Phibbs, 2015). The national Māori response and actions taken by the Māori Earthquake Recovery Network following the Canterbury earthquakes was also overlooked by the media (Carter & Kenney, 2018). Ignoring indigenous knowledges, resources and response capabilities that are valuable in disaster contexts, demonstrates the subordination of indigeneity, and by extension indigenous masculinity, within a gender hierarchy that is headed by sets of understandings about hegemonic masculinity (in this case, elite, western, able bodied men) as the dominant power holders. The privileging of Western knowledge in structures of power associated with DRR, response and recovery supports Gatens' (1996) argument that both women and minority groups are 'other' to the 'neutral' body politic that governs policy and practice.

The subordination of some men within the gender hierarchy also extends to men who are gay or transgender who face increased discrimination and exclusion in disasters (Dunn, 2016; Gorman-Murray et al., 2016). Gay men may still have access to patriarchal privilege whilst being subordinately positioned in relation to hegemonic masculinity, thus men's experiences of disaster can depend upon interactions between other masculinities (Gorman-Murray et al., 2016). For instance, in a study conducted by Gorman-Murray et al. (2016) on the 2011 Brisbane floods, a gay couple felt apprehensive when volunteers helped clear their flooded home. The invasion of their private space exposed their sexuality to strangers. The Gorman-Murray et al. (2016) study also highlighted how gay men may feel vulnerable and/or threatened by heterosexual masculinity. Hurricane Katrina demonstrated how heteronormative assumptions played out as gay couples were not recognised as being in a relationship, and were resettled separately (Dominey-Howes et al., 2014). Stigma towards sexual and gender minorities has also led to food and shelter being

denied to gender and sexual minorities individuals (Gorman-Murray et al., 2014). Coping mechanisms enacted in response to stigmatism include accounts of gay men 'enacting' hegemonic masculinity to protect themselves from discrimination (Dominey-Howes et al., 2014). Hierarchical systems are enforced when black and ethnic minority gay and transgender men are further marginalised than white gay or transgender men (Dominey-Howes et al., 2014) which illustrates how ethnicity-based power structures can further marginalise people. In addition, gender and sexual minorities have been blamed for 'causing' a disaster, as they 'sin,' therefore a disaster is construed as God's punishment (Gorman-Murray et al., 2014). These views have led to violent attacks on gender and sexual minorities following disasters which increases vulnerability and isolation. There may also be pre-existing disaster risks for gay and transgender men, for example, discrimination forced gay men in Jamaica to become homeless, leading them to live on gully banks exposed to storm water flooding with no shelter from hurricanes (Dunn, 2016). Although the research on sexuality and gender minorities is limited in DRR scholarship, research that has been conducted highlights stigmatism, exclusion and neglect (Gaillard et al., 2017b). What the different areas presented in the disaster literature pertaining to gender have in common is the ways in which some men are 'othered' by sets of understandings about hegemonic masculinity and how different masculine identities are under-represented or absent from the literature. The body politic within disasters thereby works to exclude particular groups of people who do not 'fit' with the 'neutral' male body (Gatens, 1996).

## **Conclusion (of the Article)**

A review of the literature traces progress in incorporating a gender lens to disaster risk reduction scholarship. From the late 1980s, there was a deliberate focus on women as it was recognised that following disasters, women, especially those in low-income countries were the most marginalised and disadvantaged. Research and advocacy have been instrumental in changing policy and practice throughout the different stages of the disaster cycle. However, following the woman:man binary and presenting the view that women are generally more at risk in disaster contexts than men, has created a skewed understanding of people's experiences of disaster. Within the literature that is available, most of which is written in the context of men in high income countries, identifies that men post-disaster appear to struggle with socially constructed gender roles that associate characteristics of masculinity with human action. What Fordham and Meyreles (2014) call a paradox, masculinity which contributes to the structure of power that privileges men, can also put men at risk. The literature demonstrates that there is a disjunction between the assumptions and/or lack of understanding of the reality of men's lived disaster experiences. Challenging the hegemony of the status quo involves bringing other gender identities into the discussions, including alternative ways of perceiving masculinity. Given the obvious gap in DRR, further research on men's personal accounts of disaster is recommended in order to create a comprehensive understanding of people's gendered experiences of disaster. Furthermore, intersectional research should be advocated for in order to gain an all-inclusive approach and understanding of disaster stories that foreground difference. However, progress will continue to be slow while the body politic that underpins international and local disaster policy remains unexamined.

## Supplemental Literature Review

The supplementary review begins by providing an overview of the geography literature in which the thesis sits, followed by a review of critical men's studies, paying particular attention to New Zealand hegemonic masculinities. Because Chapters Four, Five and Six draw on geographical perspectives to examine the space(s) and place(s), the geography and disaster literature is scrutinised to provide an insight into the significance of examining the spaces in which stories of disaster are understood. A review of the geography and disaster literature is followed by a synthesis of writings on men, masculinities and disasters, that includes discussions of emergency responders, violence, climate change, men's health and a consideration of men's privileged positions in disaster. The review reflects on the place of men and masculinities in international and New Zealand disaster policies and guidelines and by drawing on the aforementioned literature, offers a critical reflection on the importance of including a framework for masculinities in disaster preparedness, response and recovery policies. Concluding this section of the chapter, established themes are described, and a summary of the literature on men and disaster is presented.

## Understandings of Space and Place

This doctoral research draws on geographical thought to enable an understanding of the social and physical environments in which men's daily realities in post-disaster spaces are situated. A core perspective of Human Geography is the development of knowledges that recognise the interconnection between space, time and multiplicity of personal experience (Buttimer, 1980a,b; Massey, 1994, 2005; McDowell, 1997; Rose, 1993). Under modernism, space<sup>8</sup> was regarded as a static backdrop on which social practices and activities were performed (Hägerstrand, 1970, 1985). It was with this modernist view of space, that time within geography scholarship, became quantified and measured in accordance with positivist modes of measurement (Massey, 1999; Rose, 1995). Such modernistic views, and positivist methods of enquiry, limited the scope in which human experiences in space(s) could be understood (Bondi, 1990; Harvey, 1993; Massey, 1994; Rose, 1995; Soja, 1989). While geographers such as Harvey (1989, 1994) and Soja (1989) recognised aspects of the social embedded in space(s), it has been said scholars like Harvey and Soja are situated within modernist geography yet apply postmodern styles to analysis of space in their work (Berg, 1993). Consequently, some theorists of space have criticised scholars for not fully engaging with the intersections of social subjectivities such as gender, age and race in writings on space (Bondi, 2005b; McDowell, 1992). Although there have been debates between the application of modernist and postmodernist thinking in Geography (Berg, 1993; Dear, 1988; Pile & Rose, 1992), there has been a development in geographic exploration into the ways in which space is continually constructed by a multiplicity of social practices and behaviours (Bondi, 1990; Friberg et al., 2009; Massey, 1994; Morgan, 2020; Rose, 1995; Russell, 2017; Yang et al., 2018). Through a geography lens, it is understood that the socially constructed world is profoundly

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8 A more detailed overview of the conceptualisation of space, and its use within the thesis is offered in Chapters Three and Six.

spatial and formed by intangible connections between spatial scales, from the global, such as the reach of information technology, through to the local, such as workplace social dynamics (Massey, 1994). Relevant to the thesis on men, masculinities and disaster, studies investigating the socialisation of gender in the construction of space(s) have emerged, particularly through feminist geographical inquiry (Appleford, 2016; Carr, 2017; Friberg et al., 2009; Heim LaFrombois, 2019; Yang et al., 2018). It is within this post-modern perspective of space, that emphasises the subjectivities and social relations, including constructions of gender that characterise spatiality, in which this thesis sits.

An understanding of space that captures the subjectivities, and socialisation of space(s), informs knowledges about the production of place(s) (Massey, 1994; McDowell, 1999; McDowell & Sharp, 1997). Place has been conceptualised as an articulation of social relations embedded in space(s) (Dyck, 2005; Massey, 1994). Simply put, place is understood as spaces in which personal and individual meanings are made (Cresswell, 2004; Dyck, 2005; Massey, 1994; Relph, 1977; Tuan, 1977). Importantly, Massey (1994) argues that place must be understood in the broader context of the spatial interactions across scales, including temporalities such as place's relationship with history. Effectively, place is intricately constructed by multiple networks tied to unfixed and contested physical and social spaces. In particular, meanings of place<sup>9</sup> can be complicated by the different ways in which social factors, such as gender, age and sexuality interact within place. As feminist scholars argue, there are likely to be dissimilarities between how women and men perceive and make meanings in particular spaces (Dyck, 2005; Massey, 1984, 1994; McDowell, 1999; Scholten et al., 2012; Yang et al., 2018). Massey (1991) provides an exemplar of how "a woman's sense of place in a mining village – the spaces through which she normally moves, the meeting places, the connections outside – are different from a man's. Their senses of place will be different" (p. 28). Recognising the role of gender socialisation in the production of place, draws attention to the ways in which place is integral to shaping gender identities, including sets of understandings about masculinities.

### **Understandings about Masculinities**

It is important to examine and understand the concept of masculinity, when considering men's experiences of disaster (Pease, 2014), due to the performative nature of masculinities, in particular, hegemonic masculinity that underpins men's behaviours, practices and actions (Coles, 2008; Connell, 2000, 2020; Dowd, 2010; O'Brien et al., 2005). Connell (2014) argues that masculinities can be understood as being practices and processes of gender, which offer a more complex interpretation of men's socialisation, than a simple alignment with the male sex. Men are encouraged to aspire to ideas of hegemonic masculinity, which is historically, socially, culturally, and geographically specific (Connell & Messerschmidt, 2005; Gorman-Murray & Hopkins, 2014), through positioning themselves in relation to sets of understandings about what it means to be a man. Masculinities are understood to be positioned hierarchically, whereby hegemonic masculinity sits at the pinnacle position, and other forms of masculinity such as subordinate, complicit

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9 A fuller discussion on the ideas of place, and the conceptualisation of sense of place is provided within Chapters Three and Four.

and marginalised masculinities are situated in relation to the dominate form of masculinity (Connell, 2005). Within their respective positions, multiple other relational social categories such as sexuality, age and class can influence where a man is situated within the masculine gender hierarchy (Gorman-Murray & Hopkins, 2014).

Masculinity is often considered invisible due to men's perspectives, actions and experiences being considered 'normal' and/or 'neutral,' which overlooks the manifestation of the socialisation of gender (Connell, 2020; Dowd, 2010; Gatens, 1996; Law et al., 1999). Yet, not all men benefit from male hegemony, as masculinities create unhealthy, unrealistic ideas about what it means to be a man (Connell, 2020; Dowd, 2010), which is evidenced in the increase in male steroid use to achieve muscularity (Murray et al., 2016; Parent & Moradi, 2011). Additionally, in order to comply with hegemonic masculinity norms, men hide signs of 'weakness' such as poor health, mental distress, financial problems and crying (Vogel et al., 2011). Suppressing signs of vulnerability has become normative behaviour for men, which showcases masculinity as performative; expressed through bodily movements, dressing and sculpting the body in ways that conform to historically specific ideals of masculinity (Young, 1990). Performativity centres around how a man is represented and presents himself as any sign of 'weakness' will impact on an individual's credentials as a man (Connell, 1995; Segal, 2007).

The increased interest in masculinities and men in Human Geography in the 1990s generated opportunities to analyse the construction of masculinities within the context of men's physical, social and cultural environments (Berg & Longhurst, 2003; Jackson, 1991; Law et al., 1999; Longhurst, 2000; McDowell, 2005). Given the (re)producing nature of masculinities, geographers stressed the importance of time and space in situating men and masculinities (Berg & Longhurst, 2003; Gorman-Murray & Hopkins, 2014; van Hoven & Hörchelmann, 2005). Perceiving masculinities in time and space provides further insights into the unstable and contestable spaces within the gender hierarchy. As men move between different cultural and/or contextual spaces/places, their positioning in relation to hegemonic masculinity may fluctuate. This varying positioning highlights the spatiality, temporality and mobility of masculinities. For the purposes of this thesis, hegemonic masculinity is understood as: the highly contestable space that legitimises men's dominant position in society (Berg & Longhurst, 2003; Connell, 1995), and refers to authority, control and hierarchies of power in the production of gender relations within the gender hierarchy (Segal, 2007). It is the most honoured "position of centrality in a structure of gender relations, and social subordination of women" and other men (Connell, 2014, p. 8).



A consideration of hegemonic masculinity is particularly relevant to the study of men and disaster, as Pease (2016) states that “for men to be vulnerable to external forces is to challenge their masculinity and their sense of self as a man, as being in control and taking risks are two of the key dimensions of hegemonic masculinity” (p.24). Masculinity frameworks can therefore support this research on men’s experiences of the M7.8 Kaikōura/Waiiau earthquake in New Zealand, by providing a context to understand men’s specific challenges and strengths following the disaster. As the thesis sits within social science framings of masculinities in the context of disaster, an overview of the New Zealand specific masculinities literature is presented in the following section.

### **Placing New Zealand Masculinities**



**Figure 4:** *Statue of The Southern Man, Dunedin Airport.*  
**Image:** *A Rushton*

The New Zealand literature on masculinity discusses the influence of colonisation in shaping the particular attributes and behaviours of men in New Zealand (Gee & Jackson, 2010; King, 1988; Law et al., 1999; Phillips, 1987). The majority of early immigrants to New Zealand were rural English, Scottish and Irish men who brought particular British ideas of male behaviour, including drinking and concealing signs of weakness or fear to New Zealand, which served to normalise the idea of men suffering in isolation (Phillips, 1987). The Kiwi Bloke is a product of New Zealand’s colonial past that celebrates working class pākehā men as being independent, hardworking and tough (Berg, 1994; Keppel, 2014; Phillips, 1987).

Brewing company Speights<sup>10</sup> developed a series of advertising campaigns in 1980s and 1990s that was shaped by, and in turn, constructed a form of pākehā heterosexual masculinity that distinguishes rural men in the South Island from ordinary kiwi blokes, by constituting a distinctive embodied image of rurality, strength and hard physical work on the land (Campbell et al., 1999; Cloke, 2005; Gee & Jackson, 2012; Law, 1997). The trope of the Southern Man encompasses what it means to be an authentic South Island man (Jackson et al., 2009), as he has the experience, knowledge, and grit to navigate the harsh terrains of the high country of New Zealand's South Island (Campbell et al., 1999; Gee & Jackson, 2012; Law, 1997). The portrayal of The Southern Man was created to represent a particular constructed masculinity within a specific place and time that echoes historic, colonial, social and cultural behaviours and attitudes. Spaces within rural New Zealand are associated with a *habitus* in which "hard man performances" (Keppel, 2014 p. 374) are valued. The campaign supported the notion of rugged, rural masculine performances through presenting images of men within the South Island landscape; a challenging environment to live and work (Law, 1997). Although "The Southern Man campaign [was] a product of a particular time and place" (Law, 1997, p. 26), it drew on shared notions of rural masculinity in New Zealand through the use of satire (Cloke, 2005; Liepins, 2000). Nevertheless, it is understood that The Southern Man, like The Kiwi Bloke, values behaviours and practices that embody and constitute strength, control and independence. The Southern Man stereotype of New Zealand rural masculinity is presented in Articles Two and Three as a way to critically examine men's responses to and recovery from the Kaikōura/Waiiau earthquake in the South Island.

### **Geography and Disaster Literature: An Overview**

Human Geography has made important contributions to disaster scholarship. The work of geographers centre meanings and relationships between space, place and hazards in the making of disasters by drawing attention to the ways disasters unfold within social and environmental spaces (Adams-Hutcheson, 2017a; Akerkar & Fordham, 2017; Block et al., 2019; Cretney, 2017; Dickinson, 2019; Eriksen & Simon, 2017; McKinnon et al., 2016). Cox and Holmes' (2000), research on bushfires for example, emphasised how recovery is inherently shaped by people's sense of place within the natural environment and their social communities. The authors identified that affected communities wished to close the doors to the outside world, enabling recovery and healing collectively and privately within the scorched environment. Sightings of nature's healing such as greenery, facilitated a sense of strength for some affected by the fires. Their research highlights the mediating role of sense of place for disaster recovery.

Cox and Perry (2011) also comment on the salience of place in disaster recovery; they argue that examining place within disaster contexts promotes the importance of recognising the role of disorientation and grief in recovery. Often little attention is given to how people *feel* returning to significantly changed

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10 New Zealand brewery company. Depicted in figure 4, located at Dunedin airport, is the gifted statue, from Speights, of the Southern Man and his horse, to the city of Dunedin in 2000. The sculpture is understood to be a tribute to the stoic attitude of the south (Dunedin Airport, 2017; Scoop, 2000).

and in some cases destroyed places, and how this disrupts recovery (Cox & Perry, 2011). Giving focus to the pragmatic aspects of disaster recovery, fails to recognise the multiple ways in which disaster affected communities may renegotiate and establish familiarity or sense of place in altered spaces. As an exemplar, in Cox and Perry's study of the impacts of the 2003 McLure fire in British Columbia, participants spoke about re-establishing a recognisable environment through symbolic acts, such as planting flora and nurturing the unscorched vegetation. These actions acted as a means to quickly initiate a sense of place, that also facilitated recovery.

Additional work on place, space and disaster emphasises how loss of a sense of place can influence post-disaster decisions (Chamlee-Wright & Storr, 2009; Morrice, 2013), create elevated levels of trauma and distress (McKinnon et al., 2016) and produce social and physical boundaries between those impacted by the disaster event, and those who were not (Tapsell & Tunstall, 2008). Cutter et al. (2016) studied urban-rural differences in disaster resilience and provided an overview of how different manifestations of disasters in urban and rural spaces produce varying levels of social, economic and environmental vulnerabilities. Utilising emotional geographies, Adams-Hutcheson (2017b) offers insightful discussions on the association of earthquake trauma and space. She argues that earthquake experiences and trauma are embodied and can be recreated when moved into spaces that provoke earthquake fears and memories. It is inferred that experiences and memories of place and space are complicit in (re)producing disaster trauma.

The geography and disaster literature is useful in extending knowledge and addressing gaps in the broader disaster literature, through informing sets of understandings about the roles of social and physical environments in disaster recovery. This body of literature informs analysis within this thesis relating to the ways in which sets of understandings about gender identities, embedded in social and physical environments influence men's response to, and coping strategies following the Kaikōura/Waiiau earthquake.

### **Men, Masculinities and Disaster**

Understandings of men in disasters is a developing area of scholarship that offers a critical gender perspective into the social nature of disaster events. Pease (2012) argues that for many men, loss of control in a disaster situation is exhibited in feelings of helplessness and failures in complying with valued hegemonic practices and behaviours. Concerns for men's well-being have arisen in response to some men's inability to express emotion, which has limited their capacity to seek help during a crisis (Fordham & Ketteridge, 1998; Pease, 2012). This issue has prompted gender and disaster scholars to utilise critical men's studies as a means to investigate the ways constructions of masculinities can inform risk, vulnerability and in some cases, the capacity of men in disaster.

Australian researchers have made significant contributions to the literature in regard to the gendered nature of men's disaster experiences. Using Australia's familiarity and experience with drought and bushfire, researchers have examined the role of Australian masculinities in constructing men's risk and vulnerabilities (Alston & Kent, 2008; Eriksen, 2014; Pease, 2012; Parkinson & Zara, 2016; Tyler & Fairbrother, 2013a,b). Critiques of Australia's 'prepare, stay and defend or leave early' bushfire policy also generated

an increase in research articles that examines the gendered dimensions of the bushfire policy. This policy, commissioned by The Australasian Fire and Emergency Service Authorities Council (AFAC), placed emphasis on residents taking action in protecting lives and properties (Haynes, et al., 2010). Civilians were encouraged to make plans early regarding their decisions to evacuate or stay and defend their homes. The policy generated criticism, which inferred that the policy was not suitable for severe fires (Teague et al., 2010), as it fuelled unsafe behaviours, notably by men who lacked fire management training (Haynes, et al., 2010). The high number of male deaths throughout bushfire seasons have been attributed to the enhanced risks created by the policy (Haynes, et al., 2010; Teague et al., 2010). Understandings of the gendered body politic in disaster policy and practice can be drawn on to illustrate the ways in which concerns for the health and well-being were minimised by providing an option within bushfire policy for people to remain within active bushfire environments. A suggestion may also be extended that the 'prepare, stay and defend or leave early' policy was framed from a place of privilege, that assumes people will have the resources, ability and knowledge to defend properties and deal with the aftermath of the fires. The body politic in this regard, constitutes a form of hyper-masculinity that values and encourages valiant actions and fails to recognise people who are excluded from this privileged position.

Decisions behind evacuating or staying are ascribed to gendered practices, particularly an Australian hegemonic masculinity that honours bravery, strength, stamina and risk taking (Eriksen et al., 2010; Tyler & Fairbrother, 2013a; Whittaker et al., 2016). In Tyler and Fairbrother's (2013a) qualitative study examining attitudes towards bushfire preparedness, gender was a recurring theme in the discussions. This research established that women wanted to prepare early and evacuate, and men preferred to delay preparations to leave and stay to protect their home. Further research on preparedness and evacuation, which included interviews with 54 women and 62 men across New South Wales, Western Australia and Victoria also identified men's reluctance to evacuate (Tyler & Fairbrother, 2018). Tyler and Fairbrother (2018) propose that it was men's sense of duty that influenced their decisions to stay. During some interviews, it was also discussed that sons would help their fathers make assessments of the house while mothers and daughters evacuated (Tyler & Fairbrother, 2018). Whittaker et al., (2016) noted the same gendered responses to evacuation in their research on the 2009 Black Saturday bushfires. Women were more likely to evacuate with children and elderly family members, while men waited until the fire arrived and then would make a decision about evacuation. Within Tyler and Fairbrother's (2018) analysis, there were no accounts of households in which women stayed and men evacuated. As scholars argue, staying to defend is masculinised and has become part of constructing a form of hegemonic Australian masculinity (Tyler & Fairbrother, 2018; Whittaker et al., 2016).

Men accounted for 58% of the Australian Black Saturday bushfires deaths in 2009 (Whittaker et al., 2016). During the period of 1900-2008, out of the 552 people who died in Australian bushfires, 67% were men (Haynes et al., 2010). While there has been a decrease in male mortality caused by bushfires, which has been linked to changing work patterns from outdoor to indoor work and increased access to vehicles,

there are still higher incidents of male mortality in bushfires than females (Haynes et al., 2010; Whittaker et al., 2016). Eriksen (2014) states that women are more likely to die whilst trying to evacuate whereas men predominately die attempting to protect property. The gendered responses to bushfires can also be seen in the differences between how women and men prepare for a bushfire. Whittaker et al. (2016) names the different approaches 'soft' and 'hard' preparations. Women focus on preparing the household and putting plans in place for children and other family members, while men attend to the disposing of fuel and installing sprinkler systems. When the time came to make a decision on whether to stay or leave, researchers identified that in some cases households became divided, resulting in conflict between women wanting to evacuate and men wanting to stay (Alston, 2017; Tyler & Fairbrother, 2018; Whittaker et al., 2016). Additional research indicates that women are more likely to consult and plan with neighbours in determining when and how to evacuate (Bateman & Edwards, 2002; Enarson & Morrow, 1997), inferring men choose to make decisions within their households. Findings suggest that men's evacuation decisions are informed by notions of self-reliance and independence which link to sets of understandings of hegemonic masculinity.

Zara et al. (2016) investigated men's feelings on how they responded and coped with the 2009 Black Saturday bushfire. Interviewing 32 men across Victoria, the researchers identified that some men were overly casual regarding the threat of the large fires. Hyper masculine behaviours prevailed in these instances as men actively moved into dangerous spaces (Zara et al., 2016). Although the men put their health and lives at risk, the media branded such actions as heroism. This celebrated form of Australian masculine heroism was rewarded in the media and in official ceremonies that distributed medals of bravery (Parkinson & Duncan, 2018; Zara et al., 2016). The honouring of male courage is tied to ideas pertaining to the gendered body politic, whereby men who were awarded in the aftermath of the bushfires were considered 'neutral' bodies, which overlooked the hyper-masculinity that underpinned the heroic actions. However, as Zara et al. (2016) and Parkinson and Zara (2016) argue, this valued form of Australian masculinity that encouraged men to 'fight the fires,' came at a cost to the men. Men began to struggle with their day to day lives post-bushfire, particularly when they experienced nightmares, flashbacks, depression and anxiety, and in some cases, men turned to drugs, alcohol, dangerous driving, and extreme sports to cope with the trauma. Many viewed the fires as a defeat as if the fires had 'won' and in some cases men felt survivors' guilt from not being able to save lives (Alston, 2017).

In the subsequent days and weeks following the Black Saturday bushfires, the army, emergency services and local men began the clean-up in fire affected communities, which provided local men who were not professional responders, with a sense of purpose (Alston, 2017). However outside contractors were soon given the task of the clean-up, which left local men feeling pushed out of their communities (Alston, 2017). Alston's (2017) research findings demonstrate how men could regain a sense of place by being enabled to support their communities after a disaster. However, when 'outside' men took over the clean-up, the opportunity for local men to recreate a sense of place post-bushfire was obstructed.

In disaster spaces, some men were judged and penalised for not coping with the trauma of the bushfires (Parkinson & Zara, 2016; Zara et al., 2016). Men would attempt (and sometimes fail) to suppress

emotion and hide signs of struggle to ensure that they presented an accepted form of masculinity. Those in firefighting roles were concerned that their firefighting careers could end if anyone suspected they had not coped with the 2009 Black Saturday Bushfires (Parkinson & Zara, 2016; Zara et al., 2016). A dominant theme within work by Parkinson and Zara (2016) and Zara et al's (2016) research was how stigma surrounded men seeking psychosocial support. Requesting professional help is not an accepted practice for men to undertake in relation to hegemonic masculinity (O'Brien et al., 2005; Zara et al., 2016), so most men had to resort to managing emotional distress alone. However, Zara et al. (2016) argue, this form of hegemonic masculinity that encourages independence, risk-taking and stoicism can profoundly impact the mental and physical well-being of men, their families and communities. Overall, the literatures on men and disaster in Australia demonstrate that the gendered body politic operates with bushfire policies and practices that works to uphold and encourage a form of hyper-masculinity. For those that do not comply, such as women and elderly people, or some men who are judged as unsuccessful, become excluded from the body politic, which is evidenced in the lack of psychosocial support for men in the aftermath of the 2009 Black Saturday bushfire. While the gendered body politic works by marginalising individuals and groups of people who do not align to a narrow depiction of what should constitute as a body in authority, individuals will actively work to portray a version of themselves that embodies this position of power and respect.

Prevalent across the gender and disaster literature is how men work to avoid displaying emotion and expressing concern (Dominey-Howes, 2015; Eriksen, 2014; Genade, 2016; Parkinson & Zara, 2016; Ritchie, 2012), in order to present an embodied representation of strength and control in times of crisis (Bryant & Garnham, 2015; Lucas, 1969; Zara et al., 2016). In research on gendered behaviours during and after Hurricane Andrew, Alway et al. (1998) discuss how men in their study felt fearful yet tried to conceal emotions in the presence of family in order to create an illusion that they were strong and in control. Like households in Australia during the 2009 bushfires, preparations for Hurricane Andrew fell along gender lines. Men more often would undertake the dangerous tasks of boarding up windows and women would conduct emotional support for the family. Alway et al. (1998) documented accounts of women's fears increasing when their husbands expressed concerns. Women's elevated worries provoked by male family members reflects their understanding that men do not 'get' emotional, thus when they do, it infers an increase in the severity of a situation. As one participant stated: "when I realised how scared he was, that's when I knew that it was worse than worse" (p. 184).

Similar to men's experiences following the 2009 Black Saturday Bushfires (Parkinson & Zara, 2016), men in the aftermath of Hurricane Andrew also saw themselves as failures when, as husbands and fathers, they were unable to provide safe shelter for their families (Alway et al., 1998). Employment was a factor in men's perceptions of their masculinity post-disaster, which was evidenced in men undertaking preparation measures for their paid employment and returning to work the first chance they could after the hurricane (Alway et al., 1998). In some instances, men felt pressured into going back to work out of concerns for losing their job. In their interviews, male participants spoke about being torn between working and attending to

needs of the home and family, which increased levels of stress. Alway et al. (1998) suggest that inflexibility in men's work may be due to men being less likely to ask for support from their employer, or working for employers that are insensitive, thus men received little consideration or assistance.

Disruptions to men's work were also noted following the 2004 Indian Ocean Tsunami that devastated coastal communities across Asia and Africa including Indonesia, Thailand, Sri Lanka and Kenya. Fishing equipment and boats were destroyed by the tsunami, leaving many fishing communities without the ability to work. Fishing is a traditional source of employment for Sri Lankan men and contributes to a form of Sri Lankan masculinity. Thus, losing access to fishing, halted men's ability to undertake traditional economic activities. Men are considered to be the main financial providers within their family, therefore following the tsunami and loss of income, they experienced elevated levels of stress and feelings of failure (Dominelli, 2020). Dominelli (2020) identified a lack of specific support for men's livelihoods following the tsunami, which created a series of cascading impacts on families and communities, including struggles with poverty and alcoholism. Additional research conducted in Sri Lanka on the tsunami's aftermath, has indicated that men's feelings of anger and grief fuelled a rise in alcohol use amongst men, which became an underlying factor for an increase in intimate partner violence (de Alwis, 2016; Dominelli, 2020; Doppler, 2009). Effectively, men's loss of traditional employment, debilitated their sense of traditional masculinity (Dominelli, 2020). This research on the emotional toll paid by Sri Lankan men, reflects similar insights presented by Ritchie (2012), who drew attention to how, as a result of the Exxon Valdez Oil Spill, fishermen in Alaska experienced a loss of employment and financial stability which created emotional stress and a loss of physical and mental health. This literature indicates a correlation between men's employment and psychosocial well-being in post-disaster spaces. Given that employment can be disrupted in a disaster, and men's work is significant in structuring masculinities and male identity, it can be argued that attention should be paid to how disturbances to or loss of employment can affect men's sense of self.

Men's prevailing concerns about employment were also evidenced in Japan after the 2011 earthquake, tsunami and subsequent Fukushima Daiichi Nuclear Power Plant explosion. Employment concerns, governed men's attitudes and responses to the Fukushima explosion and radioactive damage (Morioka, 2014, 2016). Women were more likely to want to evacuate, nevertheless the decision was often made by husbands. Conversely, men prioritised work over fears of radioactive repercussions on health and often would decide to remain within radioactive locales. Morioka (2014, 2016) further highlighted how men trusted official guidelines and advice regarding radiation more than women. She attributed men's trust in the Japanese government to men's lower perceptions of risk, governed to some degree by male work colleagues who had also chosen not to evacuate. Their perception of harm stemmed from the immediate risk of losing employment, rather than medium to long term impacts on health. Men's attitudes in this case were fundamentally shaped by sets of understandings about Japanese hegemonic masculinity, which profoundly honours economic activities over physical and mental health. The significance of place-based masculinities in permeating men's disaster response and behaviours illustrates the relevance of

investigating dissimilar masculinities across multiple countries, including exploring disparities between urban and rural masculinities. Examining a diverse range of men's disaster accounts through the lens of masculinity may provide comprehensive knowledge on the complexities of masculinities which inform male behaviours that produce risk, vulnerability and shape recovery.

Men's health seeking behaviours is an identifiable theme within the academic literature on gender and disasters. Labra et al. (2018) undertook research examining men's help seeking attitudes in the rural community of Penuhue, Chile following the 8.8 magnitude Chilean earthquake in 2010. Interviewing 45 men, across various employment sectors and age groups, the authors established a correlation between men with higher levels of education, income and those who were in a relationship with an increased likelihood of accessing health services and seeking professional help. However, when presented with a specific question relating to accessing psychosocial services, 81.8% of all respondents stated that they would be worried about appearing weak if they sought psychosocial support. Labra et al. (2018) further identified that men aged 55+ years were concerned about harming their pride, thus were more likely to manage stressors and solve problems alone. While the authors do not critically review *why* social markers such as elevated levels of education and higher incomes correlated with an increased likelihood of men seeking help, a suggestion can be advanced that these men embodied multiple hegemonic masculine qualities such as high income, education, youth and having a partner. Thus, older men or men with lower economic or/and education status perhaps could gain a higher position within the gender hierarchy through enacting the valued practice of self-reliance. The authors go on to highlight that men in the age bracket 50 years+ emphasised the importance of confidentiality in seeking professional support. A concern for public disclosure of private and personal information could be attributed to the performance of hegemonic masculinities, whereby leaked health details could disrupt a man's integrity (Labra et al., 2018). It may be argued, that a gradual generational shift is occurring around the perception of men requesting support and that younger men are potentially adopting a 'softer' idealised masculinity that accepts help seeking behaviours. The literatures reviewed in this section draw attention to the significance of examining the role of gender socialisation through which men's well-being in disaster may be understood. Literature focusing on men's health, which provides the context for research concerning men's health and disaster in New Zealand and internationally is considered in the following section.

### **Men, Disaster and Health**

Men's help seeking behaviours are profoundly shaped by masculinity. Men are likely to be concerned about being successful, appearing tough and hiding emotion and distress (Courtenay, 2000; Judd et al., 2008; Keppel, 2014; The Mental Health Foundation of New Zealand, 2013). There is a common perception that asking for support is a sign of weakness and vulnerability (The Mental Health Foundation of New Zealand, 2013), thus seeking help is not a customary action for men to take. The role of a masculinity that encourages stoicism and independence and silencing of men's expressions of distress is reflected in the high prevalence of male suicides (McKenzie et al., 2018; Office of the Chief Coroner of New Zealand,



2020). Masculine stoicism is also a contributing factor to late health diagnoses (Yousaf et al., 2015), which result in poorer health outcomes for men when compared with health outcomes for women (Courtenay, 2000; George & Fleming, 2004). It is argued that men adopt unhealthy coping strategies, such as alcohol and drug abuse, as forms of accepted gender performances and masculine ways of dealing with stressful life events (Clearly, 2012; Dominelli, 2020; Enarson & Phillips, 2008; Fugitt & Ham, 2018).

The preceding overview detailing attributes imbued within the body of literature concerning men's well-being reflect the writings on New Zealand men's health. In New Zealand, for instance, there has been an increase in targeted campaigning to shift men's attitudes towards talking about concerns and seeking support. *Men's sheds* are local community-based organisations that facilitate well-being and support for men through 'masculine' activities such as carpentry (Menz Shed New Zealand, 2020; Wilson & Cordier, 2012). *Headfirst* is another initiative in New Zealand that seeks to change the tough persona associated with New Zealand rugby players by encouraging players and fans to look after both their mental and physical health (Headfirst, 2020; NZ Rugby, 2020). Further illustrations of well-being strategies focused on men in New Zealand include: *mates in construction*, a suicide prevention programme formed out of the high prevalence of male suicide in the construction industry; *get the tools*, a programme that provides support for men dealing with physical and mental health challenges; and *movember*, an annual moustache growing event during the month of November, to promote an awareness around men's mental health (Movember, 2020). More recently, *movember* has teamed up with *Speights* to help spread information regarding the importance of men's mental health. This shift in *Speights*' attitude from glorifying 'hard man performances' to promoting spaces for men to become aware of concerning masculine behaviours (such as suppressing emotion and not talking about individual struggles) reflects a changing perspective towards masculinities in New Zealand. Relevant to this study investigating rural men's experiences of the Kaikōura/Waiiau earthquake, *Farm strong* is an initiative in New Zealand that provides resources and support to rural communities in New Zealand, in order to improve well-being. Founded by the Mental Health Foundation, *Farm Strong* recognises the unique challenges rural communities face, with farmers working in unpredictable environments and how these challenges may manifest into psychosocial issues such as depression or stress relating to financial debt (Farm Strong, 2018). While this endeavour to help rural communities in dealing with stress does not explicitly state that it seeks to support men, an argument can be made that the issues *Farm Strong* discusses, such as burn out, not asking for help and neglecting physical and mental health complaints (Farm Strong, 2018) reflect sets of understandings about rural hegemonic masculinity and traits associated with men (Alston & Kent, 2008; Bryant & Garnham, 2015; Longhurst & Wilson, 1999), which reflect ideas that are associated with *The Southern Man* (Keppel, 2014; Law, 1997). Together, these grassroots initiatives highlight the growing concern for New Zealand men's mental and physical well-being, which has historically been shaped by ideas of stoicism, self-reliance and hard man performances (Keppel, 2014; Law et al., 1999). These attributes, pertaining to particular masculine behaviours discussed in the literature on New Zealand men's health and health-seeking manners distinctly correspond to the broader literatures on men's health in disaster.

Alston and Kent's (2008) work on the impacts of droughts on male farmers in Australia, identified that the farmers sought to remain stoic, thereby refusing support and neglecting health needs in order to present a form of rural Australian hegemonic masculinity. While droughts brought increased stressors for Australian farmers, inducing suicidal thoughts and depression, men were reluctant to seek professional support due to cultural discourses tying help with notions of shame and failure (Alston & Kent, 2008; Bryant & Garnham, 2015). A consensus in the literature points towards an understanding that seeking help can undermine men's masculine identity. Similar to the New Zealand literature on rural masculinities, Australian agricultural discourses reflect ideas that require rural men to be strong, independent and rugged (Liepins, 2000). These masculine traits have been further identified as shaping Australia's stay and defend bushfire policy as previously discussed.

Risk-taking, as reviewed in the preceding section of this chapter, is attributed to sets of understandings about masculine behaviours in a disaster. Behaviours commonly include delaying or declining to evacuate (Bateman & Edwards, 2002; Tyler & Fairbrother, 2013a,b, 2018), undertaking dangerous activities such as search and rescue (Bradshaw, 2004; Delaney & Shrader, 2000; Fordham & Meyreles, 2014), and driving in dangerous environments (Pereira et al., 2017). Taking risks and underestimating the potential for harm has been correlated to men's over representation in injuries and deaths in road traffic accidents (Driscoll et al., 2005), flood events (Jonkman & Kelman, 2005; Paul et al., 2018; Pereira et al., 2017), landslides (Salvati et al., 2018), hurricanes (Jonkman et al., 2018) and bushfires (Handmer et al., 2010; Haynes et al., 2010) in developed countries. Recent preliminary evidence alludes to a higher prevalence of men dying from Covid-19 (Jin et al., 2020; The World Health Organisation [WHO], 2020a). While the causes of significant gender disparities in Covid-19 deaths are not confirmed, the WHO (2020a) infer that reduced help-seeking behaviours associated with hegemonic masculinities may be contributing factors.

Caution is warranted in determining gendered mortality in disasters. While men may be overrepresented in some natural hazard events, there remains evidence that women are outnumbered in disaster fatalities globally (Cutter, 2017; Fordham & Meyreles, 2014; Neumayer, & Plümper, 2007) and, more notably in developing countries (Chowdhury et al., 1993; Rahman, 2013). Furthermore, Borden and Cutter (2008) argue that statistical data on disaster mortality lacks in accuracy and reporting. There is also limited disaggregated data on reported deaths related to natural hazards, further reducing the trustworthiness of the data in relation to gender, age, ethnicity, health status and sexuality (Akerkar & Fordham, 2017; Cutter, 2017; Fordham et al., 2006; WHO, 2020a). While statistical data is not a focus of this doctoral thesis, an accurate representation of health and mortality figures can support qualitative data in providing evidence of the risks and impacts of disasters.

The literature on men's physical and mental well-being is particularly relevant for this doctoral research because it offers insights into potential areas of concerns for men in New Zealand, that may be exacerbated in a disaster. While the scholarship interrogated within this section concerned specific disaster events, an argument can be made that an overarching and progressive risk of climate change is particularly

relevant to inquiries into men's health and disaster. The research on bushfires (Haynes et al., 2010; Tyler & Fairbrother, 2013a,b; Zara et al., 2016) as an exemplar, provided insight into the ferocity of climate related hazards and the impacts of such repeating events on human populations. Climate change can present an accumulation of hazards, that cause indirect and direct impacts sequentially, as evidenced in an increase of extreme weather events across New Zealand (NZ Herald, 2019a,b; Piper, 2020; Radio New Zealand [RNZ], 2020; Salinger et al., 2018). As New Zealand is exposed to increasing risks from climate change as well as geological hazard events, such as volcanic eruptions and earthquakes, it is necessary to include brief examinations of the ways in which sets of understandings of masculinities may inform climate risk in discussions on gender and disasters.

### **Men, Masculinities and Climate Change**

Climate change and disasters are intrinsically connected (Banwell et al., 2018; O'Brien et al., 2006). As the climate changes, creating warmer oceans, hotter summers and cooler winters, the risks and frequency of extreme weather increase (Schipper & Pelling, 2006). The literature on men and disasters highlights the conjunction between masculinities and personal disaster experiences, thus it is pertinent to examine the current literature and research on the ways that climate change is impacting men and sets of understandings about masculinities globally.

When considering men, masculinities, and climate change, it is important to understand men's views on environmental changes and how likely they are to foster mitigation strategies and different avenues of employment. Milnes and Haney (2017) used the 2013 Alberta floods to investigate men's attitudes to climate change in the economically oil dependent town of Calgary following the floods. Through surveys and interviewing, the authors identified that Calgary men were heavily dependent on oil production employment in Alberta and consequently would not consider changing their line of work in light of flood risks. The research further substantiated that men were more likely to reject evidence suggesting fossil fuels are drivers of climate change, arguing instead that climate changes and flood events are natural processes, independent of human influence. The authors theorised that men's prioritisation of employment over environmental concerns is profoundly linked to a form of hegemonic masculinity in Alberta that values men's commitment to, and hard work in oil production (Milnes & Haney, 2017). This tie between men and work in discussions on climate change, support the conclusions drawn in the disaster literature that suggest an association between sets of understanding of place-based masculinity and perceptions of risk (Alston & Kent, 2008; Eriksen 2014; Morioka, 2014; Tyler & Fairbrother, 2013a,b). As the international literature across both disciplines alludes to a shared concern with men's prioritisation of work, a case may be put forward that, the ways in which employment shapes men's perceptions of climate and disaster risk needs to be further interrogated.

Men's resistance to changing views and practices on mitigating climate change impacts are affiliated with values embedded in masculine identity and traditional gendered divisions of labour. Aligning with Nicaragua's climate change adaptation strategy, an NGO in El Pijibay led a climate change adaptation project

encouraging men to shift from cattle ranching to coco production, which conversely challenged traditional masculine identities. While men adopted coco production, some only did so with minimum effort in an attempt to maintain and preserve their place within a hierarchy of local rural hegemonic masculinities (Gonda, 2017). Gonda (2017) coined the term *resistant masculinities* to convey men's reluctance to embrace climate adaptation strategies that may compromise their position within the gender hierarchy in El Pijibay. Economic capital accrued from cattle ranching was not a driver for men to maintain this activity, but rather, cattle ranching was a way of life that upheld men's sense of self (Gonda, 2017). Men commented on how they would use earnings from coco production to buy more cattle as within El Pijibay, the number of cattle a man owns translates into the level of social status he holds within the community. Holding onto, and in some cases, increasing cattle stock, highlights the importance of understanding Nicaraguan rural masculinity and the complexity and role of masculinities within climate change adaptation. As argued by Gonda (2017), ignoring or underestimating gender relations, in the context of men's traditional roles masculinities in adaptation strategies, can lead to failed projects.

Instances of compromised masculinity are also evident in cases where Indigenous men's traditional gender roles are threatened by adaptation policies, rising ocean temperatures and sea level rise (Jones et al., 2014; Norgaard et al., 2018; Vinyeta et al., 2016). Sea warming, as an exemplar, is prompting fish migration that is disrupting traditional food sources for Indigenous people and compromising some Indigenous men's roles as providers for their families and communities (Norgaard et al., 2018). Ice sheets in Alaska are thinning in response to warmer temperatures, creating significant food security and safety risks for Native American tribal men who regularly fish from these locales. Men who lose access to traditional practices such as hunting and fishing are forced to adapt and seek alternative economic activities. Consequently, gender roles and masculinities may not be enacted in traditional ways with Indigenous knowledges pertaining to hunting and fishing no longer passed on to the next generation (Vinyeta et al., 2016). The importance of maintaining Indigenous practices is witnessed in the increased incidences of psychosocial disorders, alcohol abuse and suicide experienced by Indigenous men, which are attributed to a loss of masculinity, culture and sense of self (Kukarenko, 2011). Indigenous research is highlighting the secondary effects of climate change on Indigenous men and masculinities (Jones et al., 2014). Māori are particularly vulnerable to the effects of climate change in New Zealand (Jones et al., 2014), and are marginalised in disasters (Carter & Kenney, 2018; Phibbs et al., 2015b). Therefore, it is important to consider how systemic exclusions and bias, including the body politic that underpins discourses on the impacts of climate change and disasters, disproportionately affect Indigenous men.

The body of literature on men, masculinities and climate change, underlines some of the patriarchal and economic processes that contribute to the economic, social and physical vulnerabilities that shape disaster and climate risk. The importance of assessing climate change in conjunction with understandings of masculinities is emphasised within this review, which also includes the relevance of considering climate and disasters collectively to develop insight into men's health and well-being in disasters.

## Male Emergency Responders

The current body of literature concerning men and disaster is dominated by a focus on emergency responders (Morren et al., 2007; Pietrantonio & Prati, 2008; Shepherd et al., 2017), including specific attention to police (Arble et al., 2018), ambulance (Bennett et al., 2004; Shakespeare-Finch et al., 2003; Wiitavaara et al., 2007), fire service (Boxer & Wild, 1993; Ericson & Mellström, 2016; Pacholok, 2009, 2013), military (Bian et al., 2011; Chappelle et al., 2016) and urban search and rescue (van der Velden et al., 2012). Reviewing literature on emergency responders provides an opportunity to examine the construction and role of masculinities in highly masculine spaces and occupations. These spaces are particularly sensitive traditional patriarchal gender regimes (Pacholok, 2009), and therefore provide a detailed insight into the ways in which sets of understandings of masculinities shape men's behaviours and well-being in adverse spaces.

There are few occupations that celebrate masculine achievement, hyper-masculinity and heroism to the high degree that emergency services do, notably the fire service (Ericson & Mellström, 2016). As Ericson and Mellström (2016) point out, "the heavily loaded symbolism of such gendered representational practices is what gives the occupation its prominent aura and elevated status, and is also what points to the inertia of change" (p. 167). Firefighting has been, and still is, an occupation or vocation that symbolises models of bravery and courage that forms ideas of manhood through images of fearless and selfless acts of heroism (Pacholok, 2013; Pease, 2014; Thurnell-Read & Parker, 2008). The symbolic weight of such male heroism provides evidence for a critical review of structures within firefighting and more broadly emergency services. However, it is suggested that the prevailing public discourses of bravery, determination and strength disguise the mental and physical costs of the heroic actions of emergency responders (Agbayani et al., 2018; Henderson et al., 2016; Pacholok, 2013).

Pacholok's (2009, 2013) research on the experiences of male firefighters during the Okanagan Valley, British Columbia wildfires in 2003 has been an influential contribution to the field of men and disaster scholarship through highlighting the mediating role of masculinity in shaping experiences and behaviours of men in formal response roles. Pacholok conceptualises how firefighters represent fearlessness through describing the process of measuring firefighting efficiency by showing aggression, controlling emotions, being calm during a crisis and putting out fires. The Okanagan Valley fires were ferocious and uncontrollable, yet firefighters interviewed within Pacholok's study felt a sense of guilt and failed duty as protectors. In some instances, men would try and pass blame between the different 'types' of firefighters (structural and wildland) in an attempt to defend their identities as men and as firefighters. Language, such as "embarrassed," "felt sick," and "let people down" (2013, p. 52) was used by the firefighters to describe their feelings about the wildfire. What is apparent in Pacholok's research on the Okanagan Valley firefighters is the sense of failure, not only as firefighters, but as men. In the weeks and months following the fire, several firefighters were on stress leave, three had retired, some were on medication for stress, two senior firefighters had been diagnosed with post-traumatic stress disorder and some had relationship problems. These challenges and issues are strongly connected to themes identified in the masculinity literature relating to mental health issues associated with an inability to live up to the ideals of hegemonic masculinity and the societal expectations imposed on men (Connell, 2014; Phillips, 1987).

Comparable studies have identified that young males are more likely to be exposed to disaster related trauma and that they have distinctive negative coping strategies such as lack of acceptance and use of black humour (Shepherd et al., 2017). The accumulative pressures on emergency responses fosters an increased proclivity to develop depression, post-traumatic stress disorder, suicide, anxiety as well as alcohol and drug addiction (Bergen-Cico et al., 2015). As examples, following the Canterbury earthquakes 32% of male emergency responders showed symptoms of PTSD (McBride et al., 2018) and 29% of male firefighters surveyed in Houston had unhealthy alcohol drinking habits due to the nature of their job (Boxer & Wild, 1993). Regardless of the risks to physical and mental well-being, the hyper-masculine culture of emergency response instilled with negative attitudes towards help seeking, serves as a barrier to accessing professional treatment for psychosocial stressors (Agbayani et al., 2018). As Arble et al. (2018) identified with their study on the coping behaviours of police officers, there was a prevalence of avoidant coping strategies, such as excessive alcohol consumption, in male police officers.

Sets of understandings about masculinities pervades the discourses on men (Connell, 2005, 2014; Hopkins & Nobel, 2009; Keppel, 2014; Parkinson & Zara, 2016; Pini, 2005) as well as disaster and emergency responders (Pacholok, 2009; Tyler & Fairbrother, 2013b, 2018). While differences may emerge between the masculine occupational culture of emergency response and place specific masculine identities of non-responders, prevailing similarities are shared. Dominating both research areas is the prevalence of valued forms of masculinity, notably place-based hegemonic masculinity, distinguished by respected practices and behaviours, such as displaying strength, courage and hiding signs of 'weakness' including emotion, and mental or physical illness. Therefore, the literature suggests that controlling emotion, reduces the risks of challenges to professional responders' identities as men, which is the central objective driving these prominent masculine characteristics.

## **Men and Violence**

An examination of the gender and disaster literature identifies early discussions on men and disaster; however, these discourses are written through the lens of women's experiences resulting from men's behaviours and actions (Alston et al., 2019; Enarson, 1997, 1999; Houghton, 2009; Nguyen, 2019; Parkinson, 2019). Gender-based violence in disasters has been established as being a significant concern for women. Given that disruption to hegemonic masculinity has been identified as a causative factor for the increase in violence against women during disasters (Austin, 2016; Rees & Wells, 2020), it is surprising that it is only recently that there has been a shift towards examining men and the role of masculinities in producing violence following disasters. For instance, hegemonic masculinity relies upon ordinary day-to-day societal structures and valued activities that men can take advantage of. A breakdown of such structures during a disaster may threaten a man's ability to perform hegemonic masculinity and can provoke some to seek alternative forms of dominance (Austin, 2016). As Austin (2016) writes, "men's violence serves to express and reinforce the gendered hierarchy while controlling and maintaining men's power, privilege and dominance" (p. 45-46). The aftermath of Hurricane Katrina (2005) constitutes an exemplar; in many

instances men lost control of their families, homes and livelihoods, which resulted in the disruption of valued forms of masculinity. As a result, there were significantly elevated incidence of violence against women (Austin, 2016), perpetrated by both male victims of the Hurricane and non-local voluntary response personnel (Luft, 2008).

In her research on relief work after Hurricane Katrina, Luft (2008) heard stories of sexual abuse by white non-local men working for a humanitarian organisation. She identified that the relief group fostered an environment that supported men to enact hyper masculine behaviours which manifested into sexual violence against fellow volunteers. Luft (2008) terms this hypermasculinity following disaster, *disaster masculinity*. Austin (2016) proposes that *disaster masculinity* can also be helpful to understand and explain violence against women perpetuated by disaster victims, as it draws attention to how and why some men reassert their positions within the gender hierarchy. Fordham (2012) asserts that policies and programmes must address and challenge dominant forms of masculinity that perpetuate violent behaviours. Nevertheless, attention to violence within some disaster management plans, including the Sendai Framework for Disaster Risk Reduction (UNDRR, 2015b) is absent. This neglect to incorporate gender-based violence within seminal initiatives, can be regarded as institutional exclusions embedded in the gendered body politic within the field of disaster management (Rushton et al., 2020). Therefore, it is important that research is carried out to identify the ways in which forms of hegemonic masculinity manifest in disaster spaces. Within the PhD research, male-on-male violence was identified within the interview transcripts, which is discussed in Chapter Four of the thesis, however male-on-female violence is not an avenue explored within this doctoral thesis; yet, is a serious topic within the gender and disasters literature in which masculinities play a central role. Further research in the field of men and disasters could provide greater insight into the ways in which individual stressors that men experience in disaster could lead to violence. Therefore, the benefits and power afforded to men in crisis is a critical space that warrants further examination.

### **Men's Advantaged Position in Disasters**

As the preceding review of the literature highlights, the emerging scholarship on men and disaster concerns the vulnerabilities and risks relating to men in disasters. In spite of a vulnerability focus on men, Fordham and Meyreles (2014) point out that socialised gender positions can increase men's privilege in comparison to women during disaster. Men have heightened ability to network within professional circles, have more technical knowledge and do not have the same household demands that women have (Fordham & Meyreles, 2014). Men are more likely to gain decision making roles, determining response and recovery in the wider community (Fordham & Meyreles, 2014; Parkinson & Duncan, 2018) and have better access to economic capital post-disaster (Morrow & Enarson, 1996). As Bradshaw (2013) argues, men are more mobile than women, having increased ability to move to areas with work or higher incomes after disasters. Fundamentally, underscoring the gender and disaster literature, notably the writings of feminist scholars,

is the view that gender differences in disasters are socially constructed and mediated by patriarchal understandings of the social world (Bradshaw, 2016; Fordham & Meyreles, 2014; Pease, 2014; Rushton et al., 2020). This foundation supports the perspective that notions of essentialism and biological determinism should be utterly rejected (Bradshaw, 2013; Enarson & Meyreles, 2004; Enarson & Pease, 2016; Fordham, 1998; Ruwanpura, 2008). Nevertheless, it can be argued that understanding the advantages and strengths that men possess can provide insight into the socialisation of gender and inherently, the role of hegemonic masculinity in disasters.

Men's advantaged position within disaster affected locales, and within the field of emergency management and disaster scholarship reflects the gendered body politic that underpins discussions on disaster risk reduction. The body politic within the field of disasters, is explicitly tied to sets of understandings about hegemonic masculinity. A lack of attention to men's needs in disaster for example, demonstrates the ways in which the body politic governs ideas pertaining to the representation of men in disaster. In other words, it could be said that the gendered body politic has an investment in rendering men as unaffected in crisis, as this virtuous portrayal of men works to make explicit comparisons between women and men. Therefore, these 'natural' comparisons can be utilised to marginalise women, by considering them to have limited capacity to cope in disaster.

Through reviewing the available literatures on men and disaster, an argument can be advanced that, for men, sculpting the body and following sets of understandings about hegemonic masculinity may present opportunities for some men to embody the gendered body politic within a particular political field. Nevertheless, the body politic that represents a small fraction of the population, typically heterosexual, able bodied men who have narrow views on the impacts of disaster, remains a restricted space. As the writings on men and disaster highlights, men can be significantly impacted by disaster; yet, their well-being needs remain largely unexamined. Men's experiences are shaped by ideas relating to a particular form of hegemonic masculinity in place. Such understandings of hegemonic masculinity can lead to harmful behaviours, including a neglect of wellness. Therefore, it is imperative to include how sets of understandings about masculinities shape men's specific needs within international and national disaster policies and practices.

### **The Implementation of Gender-Sensitive Initiatives in Disaster Policy and Practice**

This section introduces international and national frameworks for reducing disaster risk. It begins with an overview of critical insights into the globally accepted guidelines for disaster management, the Sendai Framework for Disaster Risk Reduction (UNDRR, 2015b) and The Health Emergency and Disaster Risk Management Framework (WHO, 2019). In the following section an examination of the impact of New Zealand and International disaster policies on gender is presented. Such policies have mediating roles in the ways in which governments and practitioners tailor and implement disaster risk reduction strategies for their intended populations and are relevant to this research.



## **International Disaster Management Policies and Practices**

The Sendai Framework for Disaster Risk Reduction (2015-2030) is the presiding international document, created by the United Nations that sets guidelines to inform and support disaster risk reduction and resilience (UNDRR, 2015b). This global strategy aims to reduce risks of natural hazards impacting the economy, health, livelihoods, infrastructure and ecosystems (Wahlström, 2015). The Framework was developed through intergovernmental negotiations that addressed risk-related priorities that were identified from the perspectives of Annex one and two countries (industrialised countries) (United Nations Framework Convention on Climate Change [UNFCCC], 2021). The Framework was also informed by the outcomes of previous guidelines including the Yokohama Strategy and Plan of Action for a Safer World: guidelines for natural disaster prevention, preparedness and mitigation (1994) and the Hyogo Framework for Action (2005-2015) (UNDRR, 2005). Through disseminating the guidelines, the United Nations Office for Disaster Risk Reduction has sought to raise awareness of disaster risk and invite governments to make a commitment to address the impacts of the growing number of human and natural hazards. The Sendai Framework for Disaster Risk Reduction was adopted by 187 UN member states in 2015, including New Zealand (UNDRR, 2015a).

The Framework lays out four priorities for action: (1) understanding risk, (2) strengthen disaster risk governance, (3) invest in disaster risk reduction strategies to build resilience and (4) enhance preparedness (UNDRR, 2015b). The four priorities for action are supported by seven targets which include the substantial reduction in: (a) disaster mortality, (b) number of people affected, (c) economic losses, (d) damage to critical infrastructure, as well as commitments to (e) raise the number of countries with disaster risk reduction strategies, (f) enhance international collaboration and (g) increase access to and availability of early warning systems (UNDRR, 2015b). Compared to previous UN DRR strategies, a shift is seen in the Sendai Framework to recognise the societal structures that underpin disaster risk (Wahlström, 2015). Social constructions of gender have been acknowledged as one of the contributing factors that shape disaster risk (UNDRR, 2015b). While the inclusion of gender in the document was a substantial shift to recognise gender inequality, marginalisation and exclusion as factors that underpin vulnerabilities, it nevertheless received criticism. Gender within the Sendai Framework reflects the common misreading that gender corresponds to women (Enarson & Pease, 2016; Fordham, 2012; Rushton et al., 2020). In consequence, the Sendai Framework fails to consider the vulnerabilities and needs of men in disasters.

It can be argued that there has been a move from human-focused approaches (in the Hyogo Framework) to technology centred approaches (in the Sendai Framework), evidenced in how traditional, indigenous and local knowledges are situated within the framework as “complement[s] [to] scientific knowledge” (UNDRR, 2015b, p. 15). Emphasis has been placed on the use of technology in reducing risk, which suggests a strong masculinist approach to disaster risk reduction (Adams-Hutcheson, 2018; Enarson & Morrow, 1998). This emphasis positions social and technological knowledge within a hierarchical structure in which technology is prioritised over social understandings of risk. Bondesson (2019) is not convinced by the framework’s incorporation of gender into disaster risk reduction (DRR) discussions and contends that

“gendered vulnerabilities remain empty promises” (p. 51) due to a lack of direction and detail on addressing gender inequality. The absence of indicators for reducing gendered vulnerabilities when compared to other identified areas of concern that are followed by specific measures (Bondesson, 2019), suggests a lack of commitment to incorporate gender as a significant contributor of risk. The disinterest in taking gender analysis seriously in DRR is emphasised by scholars who find that gender is often regarded as an “unwanted luxury” in disasters (Fordham & Meyreles, 2014, p. 26). Yet, the field of disaster management cannot disregard gender relations and their differing constructions as they are the foundations of any given society and impact how people are affected and recover from disaster (Fordham & Meyreles, 2014). The implementation of gender within the framework constitutes a simple direction that DRR policies are more gender-sensitive, rather than providing an understanding of the underlying inequalities and social constructs, which shape vulnerability, capacities and risk. The framework for example does not provide a definition for or have direction to achieve “a gender equitable and universally accessible response” to ensure “recovery, rehabilitation and reconstruction” (UNDRR, 2015b, p. 21). The lack of clarity around the meaning of ‘gender equity’ could produce distorted and misguided gender mainstreaming in DRR policies and practices. In summary, the Sendai Framework for Disaster Risk Reduction (2015-2030) does promote the importance of including women in considerations of DRR, however the Framework is limited in addressing the underlying social inequalities and sets of understandings about gender identities in the construction of disaster risk (Bondesson, 2019). Although research points towards negative outcomes for men in disasters, such as suicide, delays in seeking help and unhealthy ways of coping, there is an absence of guidelines within the Sendai Framework to support men’s needs in disaster.

As examined in preceding discussions within the literature review chapter, there is emerging awareness of men’s specific health needs, which are intrinsically tied to sets of understandings of masculinities (Alston & Kent, 2008; Bryant & Garnham, 2015; Clearly, 2012; Courtney, 2000; de Alwis, 2016; Dominelli, 2020; Labra et al., 2018; Melick, 1978; Parkinson & Zara, 2016). The World Health Organisation (WHO), situated within the United Nations, is an agency that works to promote international health by coordinating and funding health programs, including working to increase access to health care, providing training for healthcare workers and improving the delivery of medications (WHO, 2020b). The WHO also works to support health needs in the preparation for, and response to, disasters. The Health Emergency and Disaster Risk Management Framework (WHO, 2019), developed by the WHO, published recently, makes clear the imperative to increase informed plans and procedures, specifically targeted to minimise exposures to hazards, and reduce health risks in disaster. In the development of the Health Emergency and Disaster Risk Management Framework, established guidelines and frameworks such as the sustainable development goals, and the Sendai Framework for DRR were drawn on in order to create uniformity and consistency across the international initiatives concerning disasters and climate change (WHO, 2019).

Similarities can be drawn between the Sendai Framework for DRR and the Health Emergency and Disaster Risk Management Framework in regard to the integration of gender with the initiatives. Unlike the Sendai Framework, the Health Emergency and Disaster Management document only briefly references

gender and women and provides one reference to men in considering levels of vulnerability in the context of local communities. Despite this inclusion of men in the context of vulnerability, the reason why the framework made reference to men nevertheless remains vague. There is an absence within the document concerning the significance of men's health needs, and the prevalence of masculinity in shaping men's health outcomes. Together, both the Sendai Framework for DRR and the Health Emergency and Disaster Risk Management Framework, as influential international documents, fail to consolidate knowledges that pertain to men's health more broadly, and specifically in the context of disasters. Furthermore, an argument can be made that non-acknowledgment of men's particular disaster vulnerabilities, needs and health requirements in international guidelines, could facilitate decisions, by disaster practitioners and policy makers on national and regional levels, that effectively marginalise opportunities for men to gain support. As an exemplar, a lack of leadership in relation to gender, including an absence of indicators for reducing gender vulnerability, at the international level is reflected in disaster management policies and strategies in New Zealand.

### **New Zealand Disaster Management Policies and Practices**

New Zealand has several national and multiple regional disaster management policies that guide response and recovery efforts in the event of exposure to hazards, such as earthquakes, volcanoes and infectious disease outbreak. The New Zealand National Disaster Resilience Strategy is one of the principal frameworks that provides objectives and goals for the National Emergency Management Agency (NEMA) as well as local authority and regional emergency managers to work towards building a disaster prepared New Zealand (NEMA, 2019). The Strategy sets out clear directions for managing natural hazard risks, ensuring effective responses to disasters and minimising social and economic vulnerability. Within the 49-page document, gender is mentioned once, relating to the context of social vulnerability. Like the Sendai Framework, the National Disaster Resilience Strategy does not address how gender shapes disaster vulnerability and risk.

The National Civil Defence Emergency Management Plan, which is currently being adapted to reflect the role of NEMA<sup>11</sup> and other new initiatives, is another framework used in New Zealand's emergency management sector that offers guiding principles and strategies for the national agency to follow in the event of emergency. The strategy incorporates multiple key areas that require specific direction and support, for instance some of the chapters cover: planning, logistics, response, recovery, risk monitoring and evaluation. It can be said that the area of recovery within the document is most relevant to the research on men and the Kaikōura/Waiiau earthquake because this research aims to document local men's experiences of, and perspectives on disaster. The guidelines state:

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<sup>11</sup> Until 2019, The National Emergency Management Agency was named the Ministry of Civil Defence and Emergency Management. The role of NEMA is to provide leadership and support for disaster preparedness, response and recovery in Aotearoa New Zealand.

Recovery consists of co-ordinated efforts and processes to affect the immediate, medium-term, and long-term holistic regeneration and enhancement of a community following an emergency and requires that agencies and CDEM Groups work together in establishing shared goals, priorities, strategies and information needs (NEMA, 2015, p. 2).

NEMA (2015) further contends that “recovery involves the community and activities across the following four environments: (a) social: (b) economic: (c) natural: (d) built” (p. 94-95). It can be argued that gender would sit within the social environment, as gender research has demonstrated that social constructions of gender profoundly shape disaster recovery on the individual and community level (Akerkar & Fordham, 2017; Bradshaw & Fordham, 2015; Enarson, 2012; Enarson & Pease, 2016; Fordham, 2012; Fothergill, 2004; Pease, 2014). Nevertheless, the role of gender in recovery is not written into the National Civil Defence Emergency Management Plan. Similarly, the New Zealand National Health Emergency Plan (New Zealand Ministry of Health, 2015), that provides guidance for the health sector in emergencies, does not address gender relations in health and recovery. However, unlike the National Civil Defence Emergency Management Plan and the National Disaster Resilience Strategy, the New Zealand National Health Emergency Plan does make reference to women, but only within the context of women who are breastfeeding.

Further analysis of regional emergency management plans and guidelines highlights an absence of gender sensitive disaster policies within New Zealand (Auckland Civil Defence Emergency Management Group, 2016, 2018; Canterbury Civil Defence Emergency Management Group, 2018; Marlborough District Council, 2018; Wellington Regional Emergency Management Office, 2019). The scarcity of gender in New Zealand’s national and regional emergency plans exemplifies an insufficient attempt to address any of the Sendai Framework for Disaster Risk Reduction guidelines requiring the incorporation of gender into disaster policies and practices. It may also be inferred that New Zealand is reluctant to adopt the Sendai Framework’s recommendations on gender in disasters, as to date, progress in this area has been slow. An argument can also be presented that, international national and regional disaster risk reduction and management policies and plans to date, collectively work to silence New Zealand men’s vulnerabilities and needs in disasters.

### **Conclusions from Supplemental Literature**

This review has examined available international research literature on men, masculinities and disasters and identified key themes that pertain to sets of understandings about how masculinities construct men’s realities in disaster contexts. Place-based masculinities shape men’s behaviours and decisions around disaster risk. Men are also more likely than women to choose risky options in preparing for, and responding to a natural hazard event, and the prevalence of male mortality in some disasters has been attributed to risk taking behaviours shaped by hegemonic masculinity. In contrast, some men while not enacting risk taking behaviours demonstrate a reluctance to seek support that would assist them to cope with disaster trauma. These behaviours, equally influenced by hegemonic masculinity norms, are associated with enacting stoicism and maintaining independence. The need to align with or sustain

performances of hegemonic masculinity, for example engaging in emotional suppression and attempting to embody mental and physical strength, dominate the literature on men and disasters. Men's sense of self is threatened when traditional roles, such as being the breadwinner are lost. The themes of risk taking, reluctance to seek assistance with health issues, and loss of employment have been linked with a hegemonic masculinity throughout disaster and climate change literature and associated with poor health outcomes for men who experience disasters.

The literature has drawn on research from the global south and north. However, conceptualisations of hyper-masculinity in disaster contexts remain consistent. There is also consensus in regard to a concern for men's physical and mental well-being in disasters related to the enactment of hyper-masculine behaviours, that is evident across the research literature on disasters, climate change and emergency management. Yet, there appears to be limited gender-sensitive support for men in post-disaster contexts, and limited recognition in official guidelines and policies of such concerns. A poignant quote reproduced from Alston et al. (2019) offers a summary of the gender and disaster literature: "it is the ideal of male bravery and stoicism that dominates the imagery of disasters while women are often portrayed as passive and helpless and their work is largely unheralded" (p. 188).

Alston et al's (2019) quote speaks to ideas presented within the literature review chapter. The theoretical perspective of the body politic was threaded through the literature review as a means of interrogating the literatures on men and disaster to highlight ways in which misleading 'neutral' ideas relating to the body underpin disaster discourses, including policies and practices. An argument was put forward within this chapter, that while men may be positioned higher within the gender hierarchy than women, they too may experience exclusions facilitated by the body politic and enforced by ideas pertaining to hegemonic masculinity. The following chapter discusses the contextually relevant methodology and methods that enabled an exploration of rural men's experiences of the Kaikōura/Waiiau earthquake within the thesis.

# 3

## Applying a Contextually Relevant Research Methodology

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*“Ontological narrativity, like the self, is neither a priori nor fixed. Ontological narratives make identity and the self something that one becomes. Thus narrative embeds identities in time and spatial relationships”*

*Margaret Somers & Gloria Gibson (1994, p. 30).*

This chapter introduces the research epistemology, methodology, and theoretical basis that has shaped this doctoral study of rural men’s experiences of the Kaikōura/Waiarau earthquake. The research epistemology, which centres on feminist understandings about the constitution of knowledge is presented, with attention to social constructionism provided. A process for ensuring reflexivity on the part of the researcher has been written into the qualitative research design, enabling consideration of how the researcher is situated within the study, and their influence over interviewing, data gathering and analysis. In line with feminist ideas about the influences of gender in social spaces, an overview of potential implications and benefits of gendered differences in interview practices is presented and the significance of the research process in the co-creation of knowledge, examined. A summary of the research methods is also offered followed by a discussion of the analytical process. The ethical implications of the research and research practices are described, as well as the potential risks and sensitivities associated with interviewing disaster affected participants. The chapter explains the theoretical ideas of Moira Gatens (1996), Pierre Bourdieu (1977, 1984, 1986, 1989, 1990a,b), Doreen Massey (1994, 2005) and Karen Davies (1990, 1994, 2001) and explores how they have been used to guide analysis of participants’ stories.

### **Epistemological Position**

Epistemology is concerned with how researchers create, acquire and communicate knowledge (McDowell & Sharp, 1997; Moss; 2005; Scotland, 2012). The feminist epistemological position adopted for this research captures the gendered organisation of reality through asking questions about how sexual

differences and social hierarchies construct and shape human interaction, and in doing so, constitute and legitimise knowledge (Bondi, 1990; Cope, 2002; Creswell & Poth, 2018; Longhurst, 2001b). Feminist research is underpinned by a motivation to capture the ontological stories of those that are silenced in research and ultimately excluded from contributing to ways of knowing, with feminist geographers making substantial contributions to facilitating a wider understanding of feminist criticisms of the epistemological foundations of science (Bondi, 2002; Longhurst, 2001b; Massey, 1994; McDowell, 1999; Rose, 1993). Notably, feminist researchers have argued that women's voices are excluded across multiple disciplines (Fordham & Meyreles, 2014; Hesse-Biber, 2012; Moss, 1995) and within Geography, this historical silencing and subordination of women has been a product of privileging masculine ways of knowing within research and the academy (Bondi, 2002; Rose, 1995).

Masculine positionings within research can distort ways of acquiring knowledge. The discipline of Geography for example, adopted "masculinist interpretations of space" (Rose, 1993, p. 118), which ignored the multiple, dynamic social structures that are important aspects in understandings of space and place (Gorman-Murray & Hopkins, 2014; Massey, 1994; McDowell, 1999; Rose, 1993). Feminist geography branches from the broader discipline of Human Geography because of the ways in which it approaches the exploration of how gendered social relations, structures and differences are situated. Drawing on the understanding that social relations and structures including gender, are facets in interpretations of space, place and conversely the constitution of knowledge (McDowell, 1996), the epistemological position for this thesis sought to consider the spatial and temporal contexts in which such relations are situated.

Foregrounding the thesis in a feminist epistemological project facilitated an examination of the social differences and spaces which constructed and continue to shape men's experiences of the Kaikōura/Waiiau earthquake. In Articles Two, Three and Four of this thesis, situated within Chapters Four, Five and Six, the subtleties, complexities and gendered organisations of rural men's day to day realities in a post-disaster environment were explored. As discussed within the literature review in Chapter Two, men's personal accounts of disaster can be marginalised by assumptions pertaining to hegemonic masculinity. New Zealand masculine tropes such as the Kiwi Bloke and The Southern Man that uphold stoicism and ideas of hard man performances may also work to silence men's accounts of a traumatic event. While gender was the focus of this study, other social factors that intersect with sexual difference such as age, culture and history were also examined and are discussed in Articles Two, Three and Four. Critically reviewing the gendered organisation of participant's earthquake stories gives emphasis to the taken for granted behaviours and manners that govern rural men's response, recovery and coping strategies in a disaster. As a researcher interested in feminist geography and disaster management, I sought to encapsulate the intricacies and multiple spaces/places which inform how people are affected, and to an extent, how lives are profoundly changed by traumatic natural hazard events. In order to facilitate a critical inquiry into the gendered structures and role of masculinity in rural men's accounts of the Kaikōura/Waiiau earthquake, an ontological position that aligns with a feminist epistemology and a theoretical framework that is conducive

to the lens in which the research sits, is required. For the purpose of this research, interpretivism and social constructionism were selected to facilitate an analysis of the ways in which stories are shaped by mobile spatial and temporal spaces.

## **Ontological Position**

Ontology is concerned with sets of understandings about social reality and how the researcher believes the world is constructed. There are multiple realities and perspectives through which research is conducted (Creswell & Poth, 2018) and ontology is the starting point for research, setting the path that the researcher will follow (Grix, 2002). The ontological position adopted for this research was interpretivism which acknowledges socially constructed forms of reality.

An interpretivist perspective perceives meanings to be socially made and recognises social bias in defining what knowledge is and how it can be acquired (Bryman, 2016). Interpretivism rejects generalisations and instead seeks to explore the unique context and the social and built environments in which the study is situated. Through an interpretivist viewpoint, the study also recognises that meanings are only a partial representation of the participant's perspectives in and across space and time. In this sense, an interpretivist standpoint, coupled with social constructionism is a suitable complement to a feminist epistemology and more broadly, a thesis investigating gender. These philosophical paradigms centre the thesis in shared understandings of the ways in which realities are relative to social actors and their environments. As Young and Collin (2004) contend, "knowledge is sustained by social processes and that knowledge and social action go together" (p. 376) to construct meaning. Social constructionism seeks to understand the world in which individuals are born as a pre-existing system in which people inhabit, produce and interact within (Bryman, 2016; Crotty, 1998), therefore, "meanings [have] already been made" (Scotland, 2012, p. 13). This thesis offers an interpretive perspective of the Kaikōura/Waiiau earthquake within and across place, space and time. Adopting social constructionism and feminist epistemology, as well as an interpretivist understanding of social reality, enables an illustration of how rural men's ontological stories of disaster are shaped by manifestations of gender performances, social positioning, expectations as well as historical and cultural notions of masculinity in Aotearoa, New Zealand.

## **Methodology**

Methodology combines the chosen ontology and epistemology into a framework that creates the practices and principles that guide the research (Creswell & Poth, 2018; Tuli, 2010). Once the ontological and epistemological positions are known, the methodology and methods will logically follow (Gray, 2018; Grix, 2002). This research employed a qualitative feminist research methodology.

Qualitative research seeks to "empower individuals to share their stories, hear their voices and minimise the power relationships that often exist between a researcher and the participants" (Creswell



& Poth, 2018, p. 45). Qualitative research provides detailed understandings of knowledge (Castleberry & Nolen, 2018) through studying complex and detailed issues (Creswell & Poth, 2018; Hesse-Biber, 2014), and seeking to unpack how people construct meaning (Patton, 2015). The value of a qualitative methodology is the “openness of inquiry,” attention to context and the ability to conduct research “in a way that is open to whatever turns up” (Patton, 2015, p. 11).

A qualitative methodology was adopted in conjunction with a feminist epistemology, forming a feminist methodology, as qualitative approaches to research are conducive to identifying the subtleties and gendered subjectivities of people’s everyday realities (Moss, 2005; Rose, 1993). Qualitative methodologies coupled with feminist epistemologies shape feminist research approaches which have historically favoured qualitative techniques and critiqued objective quantitative methods (Moss, 2005; Kwan, 2002; Sharp, 2005). More recently, there has been a growing area of feminist research within Geography, that challenges masculinist approaches to quantitative methods and notions of objectivity in research, through using geospatial technology to explore how gender relations shape women’s lives (Kwan, 2007). Within social science, men and their realities are commonly unexamined, with little attention being given to men as gendered beings, or how masculine identity politics influence the field of research (Pini & Pease, 2013; Popoviciu et al., 2006). Such concerns are expressed by Pini and Pease (2013) who articulate the importance of theorising masculinities and gender relations within methodological practices in research concerning men. They argue that attention needs to be paid to the ways in which gender is performed within the interview, interview material, and field of study, as well as between interviewer and interviewee, in order to develop a thorough account of how knowledge is produced within qualitative methodologies (Popoviciu et al., 2006). One way to achieve this, is by using a feminist analytical approach to capture the complex influences of gendered structures that underpin research fields, practices and procedures (Hopkins & Noble, 2009; Moss, 2002; Pini & Pease, 2013).

Feminist methodologies are committed to the personal, everyday lives of individuals, with a focus upon voices and topics that have been silenced and marginalised (Liamputtong, 2007; Longhurst, 2001a,b; Moss, 2005). In order to capture the multiple day-to-day realities of rural men in the context of a disaster, a feminist methodology was adopted for this doctoral research. While professional men’s voices dominate disaster discourses (Rushton et al., 2020), their personal accounts of dealings with disaster events can be silenced by sets of understandings about hegemonic masculinity (Enarson & Pease, 2016; Pease, 2014) and a belief in stoicism that suggests men are invulnerable to disaster (Zara et al., 2016). Therefore, employing a feminist methodology enables the complexities of men’s personal and every day experiences following a disaster to be understood.

The value of qualitative approaches to research, including the incorporation of the voices of those affected (Adams-Hutcheson, 2018) is becoming increasingly recognised by disaster researchers (Phillips, 2014; Stallings, 2002). Disaster events disrupt lives and communities in unexpected ways, often resulting in devastating consequences, and researchers should be considerate and responsive to participants’

needs when conducting research following disaster events (Phillips, 2002). Using a qualitative approach for researching sensitive issues provides those who may be marginalised, othered or excluded with an opportunity to express in their own words, their stories and experiences (Liamputtong, 2007). Qualitative research is also useful when little is known about the topic as this approach considers context (Patton, 2015), enabling flexibility and the capture of unfolding events (Liamputtong, 2007).

Critiques of qualitative approaches to disaster research also need to be considered. Disaster research is often conducted post-event and is time sensitive, therefore research can be unpredictable with little control over aspects of the research, such as the geographic location of the disaster and the magnitude of damage (Killian, 2002; Phillips, 2014). To begin with, there may be little information regarding who has been affected, which may influence the avenue of research and approaches taken (Killian, 2002). Urgency was not a concern for this research as it was not dependent upon rapid response data gathering in order to assess unmet needs. However, individual disaster stories are time sensitive as potential participants may begin to forget fine detail or eventually want to move on from discussing the experience. Due to the nature of interviewing and the sensitivity and risk of trauma in the aftermath of a disaster event, extended time between the initial event and interviewing may also be beneficial for both the research process and participants. In the case of this study, interviewing began two years post-earthquake, so while the event was still recent, there was also a greater chance that participants were recovering. Secondly, conducting research two years post-disaster may induce further detail, insight and perspective regarding the broader implications and experiences of the earthquake (Phillips, 2014). The negative effects associated with researching disaster spaces within a small period of time from the event have been noted by scholars, who suggest that rushing into disaster spaces can often uphold exploitative research practices driven by publication goals (Gaillard & Gomez, 2015). Such concerns were not factors within this research, as I considered that by entering earthquake affected communities two years after the initial event that I had minimised the potential for post-disaster exploitation of participants. I further adopted research approaches throughout data gathering, that would also reduce exploitative research practices.

## **Interviewing**

Semi-structured interviewing was selected as the method of data collection because it is an organised, yet flexible method of inquiry (Longhurst, 2010; Patton, 2015; Tolich & Davidson, 1999) that enables data to be gathered from people's own experiences and perspectives (Hesse-Biber, 2014; Patton, 2015). This form of interviewing has grown in popularity in Human Geography as scholars seek to understand the social processes embedded in spaces (Longhurst, 2010). Interviewing is also a commonly adopted method within feminist inquiry as it calls for sensitivity to the understanding of context and complex issues that may be subtle, hidden or neglected in research (McDowell, 1992; Moss, 2002).

The principal question that feminist geographers ask relates to which method is appropriate for that type of research within that specific context (Moss, 2002). In this regard, interviewing has also been considered a fitting method of inquiry for exploring the complexities of hierarchy, patriarchy, gender roles and divisions

of power. This form of data gathering is a valued method within feminist scholarship because it enables insight into and understanding of research participants' lived realities (Hesse-Biber, 2014). Interviewing is one approach employed in academia that resists hierarchical positionings between researchers and researched as well as the subordination and marginalisation of participants through imposing top-down research practices. Resistance to hierarchical research practices involves disrupting power differentials within the interview setting, by co-creating knowledge between the interviewer and interviewee (Hesse-Biber, 2014).

Dialogical interviewing was used to gather participants' views, and mirrors story telling (Frank, 2005). This approach provides flexibility and spontaneity in questioning; and ensures that participants can direct their interviews through speaking about their own views and meanings they assign to the topic/area being discussed (Frank, 2002, Knapik, 2006; Longhurst 2010; Tolich & Davidson, 1999). Dialogical interviewing is a method in which the participant echoes, through dialogue, their reality and experience of a particular event or moment in their lives (Knapik, 2006; Shor & Freire, 1987). Whilst this approach to interviewing has received criticisms pertaining to subjective bias (Kvale, 2006), a feminist and social constructionist perspective would argue that subjectivity underpins the ontological stories of participants and therefore contributes to the co-creation of knowledge (Haraway, 1991). Participants' experiences reflect social constructions of reality (Bakhtin, 1981), therefore dialogical interviewing is favoured by feminist researchers as it examines relations of power and draws out social reality through attention to discourses that are embedded within political, cultural, economic, (amongst other) fields (Farias et al., 2018). Power imbalances between the interviewer and interviewee can be reduced through using conversational interviewing, whilst capturing the dynamics of the social worlds in which communities and individuals are embedded as "any person's story is the site of struggles permeated by multiple voices" (Frank, 2005, p. 972).

Interviewing was deemed a suitable data collection method for this study as it seeks to gain insight into the complex and multiple experiences of rural men and how they contended with and navigated their post-disaster realities. Semi-structured interviewing is compatible with this study due to the sensitive nature of the research and because this method facilitates an interview space in which participants can exercise agency and governance over their narrative. In doing so, semi-structured interviewing fosters a co-creation of knowledge, which further works to disrupt power differentials between the participant and researcher (Liamputtong, 2009). The subjective and detailed nature of semi-structured interviewing enables a small number of interviews to be conducted, as it would be unethical to interview more participants and to gather more data than is needed for a doctoral project. Furthermore, in selecting interviewing as the method of inquiry, I acknowledge that my subjectivities and unconscious biases may shape the data gathering, analysis and interpretation of the PhD research.

## **Reflexivity**

Using a feminist epistemology, which encourages reflection throughout the research process, facilitates consideration of one's own biases and interpretations of the data and how these may shape the research (Falconer Al-Hindi & Kawabata, 2002; Moss, 2005; Sharp, 2005; Vallianatos, 2015). Drawing on the

works of Donna Haraway (1988, 1991) and Sandra Harding (1991), feminist geographers began examining the influence and position of the researcher within the research process. Haraway (1988, 1991) coined the term 'situated knowledges' to reflect the roles and perspectives of those acquiring knowledge. Situated knowledge is underpinned by the rejection of the idea that 'truth' and 'knowledge' are objective and bias-free. Substantial shifts within Geography have occurred to include what McDowell (1992) calls, "reflexive notion[s] of knowledge" (p. 399). She suggests one of the reasons for the development of reflexivity in Geography "lies in the coincidence of interests, among feminist, post-modern and post-structuralist theorists in the social construction of knowledges and discourses as well as the relations of power embedded within them" (McDowell, 1992, p. 399-400). Subsequently, there are methods fashioned and adopted by feminists that assist scholars in becoming more self-reflexive in their work, one method being the practice of reflexivity.

Reflexivity begins with the researcher examining their values, beliefs, and positions of privilege through a critical lens of self-reflection (Bourdieu & Wacquant, 1992; Hesse-Biber, 2014). The researcher's position and realities are socially constructed and therefore shaped by their background, experiences and beliefs (Bourdieu, 1988; Haraway, 1991; Hesse-Biber, 2014; Valentine, 2002). At the heart of reflexivity is the concept of difference, and how difference between the researcher and participant may shape the constitution of knowledge. Feminist scholars reflect on possible situational and embodied dynamics within the research procedures, and in the interview process (Hesse-Biber, 2014; Valentine 2002). They acknowledge that an interview is a dynamic fluid undertaking where the researcher and participant may share similarities where rapport can be built, whilst constituting difference. Valentine (2002) and Hesse-Biber (2014) both discuss the concept of 'insider' and 'outsider' and how acquiring more information and further insights into the participants experiences can depend on whether the participant and researcher have shared backgrounds, experiences and/or beliefs. Valentine talks about her experience interviewing a participant who was a lesbian. Despite a commonality being their sexuality as gay women, the research participant drew attention to differences of class, and proceeded to make comments around how Valentine, who was conversely positioned as a young middle-class lesbian, would not understand the challenges faced by older working class gay women like herself (Valentine, 2002). Differences and similarities are (re) negotiated throughout the interview and "in turn, the ways in which both participants and researchers read each other's identities, influences what each feels it is safe to disclose" (Valentine, 2002, p. 122). Marshall (2002) talks about being an 'outsider' in spatial practice, in which she moves in and out of the physical spaces of the 'field.' She highlights the importance of recognising differences in the field as well as in the interview. Within the field the researcher is ordinarily an outsider. For this reason, attention to differences associated with intersectionality during the interview process, including awareness of gender, class, ethnicity, sexuality and age, is important when considering factors that can shape the constitution of knowledge (Hearn, 2013; Hesse-Biber, 2014). Reflexivity however is not without its problems. Lefkowich (2019) considers how scholars who write reflexivity into their work may further marginalise their research practices and positions in academia due to breaking from conventional methods of research. Offering

personal information regarding identity, world views and background could undermine their credibility and positions as researchers. Moreover, reflexivity can be an opportunity for some scholars to create a 'smokescreen,' by only focusing on positionality and worldviews, and failing to acknowledge the privileges and benefits afforded to researchers, that may have been generated by social inequalities (Lefkowich, 2019).

Lefkowich (2019) shares similar concerns with Bourdieu (1988) who interrogated the taken-for-granted assumptions within a discipline's position, theoretical influences and established research practices in constituting information and constructing knowledge. In *Vive la Crise*, Bourdieu foregrounds reflexivity to explain the ways in which disciplinary background and training shapes how researchers understand, interpret and approach investigations. As Bourdieu (1988) contends, it is the subjectivities and objectivities (methodologies, networks, universities, theories) within fields of study that can "construct the instruments of construction of reality" (p. 778). It can be said that Bourdieu's perception of constructing reality aligns with key arguments advanced by feminist scholars in Geography; that is, the discipline of Geography has historically rejected many aspects of human experience (Buttimer, 1976; Rose, 1993). Subsequently, quantitative methodologies have dominated geographic thought, which has resulted in masculine ways of knowing (Rose, 1993). Bourdieu (1988) and Rose (1993) make important points in considering the role of an academic subject's history within the interrogation of knowledge. In the following sub-section, I reflect on how my identities, training within geographical thought and practice and background may have contributed to shaping the interviews and the research process.

### **Situating the Researcher: Praxis of Reflexivity**

The research field as a composite of socially constructed spaces requires attention to be given to the situated knowledges and practices of the researcher. As Katz (1994) affirms, "I [the researcher] am always, everywhere in the field" (p. 72). Therefore, the researcher must consider their own position and background in the field in order to attend to how knowledge is situated and produced. As a researcher using feminist research practices, I believed in ensuring reflexivity throughout the study process.

Geographical thought and practices are not neutral; there are only a handful of authorised ways within a myriad of possibilities that research can be conducted, analysed and interpreted. As such, my reality and understandings of the ways in which experience and knowledge is constituted is through mediating interactions between the social, natural and physical landscapes. It is within this backdrop that I, the researcher, and the thesis are situated.

Situating the researcher within the study requires acknowledgement of identity and background. I am a 28-year-old white, cisgender woman with a working-class background from the North East of England. Although working class, I could perhaps be positioned as middle-class due to my privilege and cultural capital as a researcher with a high level of education. My social class draws attention to the complex negotiation of class within the research process. While class dynamics may not be as prevalent in New Zealand as the UK, there may be differences between researcher and participants, in this instance rural men in the South Island of New Zealand, due to education status.

Specifically moving to New Zealand to undertake the PhD project, with no prior connections or history to New Zealand automatically positioned me, the researcher, as an 'outsider' in 'the field.' This was an intrinsic part of my position. The Kaikōura/Waiiau earthquake occurred in November 2016, ten months prior to my arrival to New Zealand. The fact that I had not experienced the earthquake, which provided the context for the study, also located me on the periphery of participants' experiences. What was interesting and perhaps unexpected was how several participants took an interest in my Northern English accent and wanted to know where in the UK I was from. As Valentine (2002, 2005) contends, common ground and sameness can be made by drawing on similarities which can facilitate rapport, a shared understanding and empathy. In this instance, some participants commented on their family connections to the UK and stated what generation 'POME'<sup>12</sup> they were in New Zealand. Conversations included discussing shared understandings of a British way of life and locations in the UK where their ancestors had been born. Alfred, a participant in this research, insisted on making me a pot of tea instead of a cup because he understood British people to "love tea." During this interview I felt a shared sense of familiarity and understanding, which on reflection may have facilitated rapport and trust between myself and Alfred.

Attending to shared meanings between the interviewer and interviewee in Gary's interview is also reflected upon. Gary experienced the loss of his partner Jo in the earthquake, he also disclosed at the beginning of his interview that he is currently dealing with illness. The researcher shared with Gary her experiences of the loss of her mother from a similar illness in 2015. While this was a casual conversation and not a deliberate attempt to draw on sameness with Gary (Hopkins, 2009; Valentine, 2002), upon reflection there was a sense that Gary had become more relaxed and comfortable in the interview space. Mitchell-Eaton (2019) contends that grief experienced by the researcher can generate greater empathy and understanding of their research subjects. Although there was a gender and a 38-year age difference between Gary and myself, there were mutual interpretations of loss and grief as well as shared sense of the challenges and emotions of illness. Researcher empathy is something that has been written about in detail (Bondi 2003; Evans, 2012; Kvale 2006; Mitchell-Eaton, 2019), and criticised (Hoggett, 2006) for being simplistic, inferring that a researcher cannot simply 'step into the shoes' of their participants. However, as Bondi (2014) argues, feelings of empathy for participants does not have to colonise their experiences, but rather it is an unconscious process that acknowledges the experience of another and is sensitive to their emotions (Mitchell-Eaton 2019). During the interview process, as in the case of talking to Alfred and Gary, I was reminded that I was often operating in spaces of 'in-betweenness' (Marshall, 2002; Nast, 1994; Valentine, 2002).

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12 The colloquial term and acronym 'POME' refers to Prisoners of Mother England who were transferred from the UK to Australia from 1787 (Anderson & Maxwell-Stewart, 2014; Casella, 2005). At the turn of the 18th century, British settlers in Australia were allowed to migrate to New Zealand, and it is understood that many of the early European settlers in New Zealand had travelled from Australia (Carmichael, 1993).

Several moments during interviewing conflicted with my worldviews and position as a feminist. Scott for instance, referred to men being attacked in the 1990s<sup>13</sup> by feminists and how it is only now that men are finally being listened to. Another participant discussed his support for Donald Trump<sup>14</sup>. On both occasions, a deliberate choice was made not to disclose my position as a feminist and my disagreements with some opinions expressed by participants. This conscious decision was made on the grounds of maintaining rapport and trust with the participants. Arendell (1997) talks about the conflicting position of feminist scholars interviewing men. She consciously minimised her position as a feminist from her participants, unless they directly asked if she was a feminist. She justified her silence by explaining how feminist research offers insights into “sensitising concepts” (Arendell, 1997, p. 349). Similarly, I chose not to disclose that the research was situated as a feminist political project. Central to this decision was to avoid misinterpretations of the research. My position as a feminist researcher was not to ‘attack’ men (as Scott stated), but rather like Arendell (1997), I wanted to use feminism as a means to examine the social and gendered structures that are embedded in the participant’s earthquake stories. I was never under any illusion that I was free of bias, values and political views. Although an impromptu decision was made to not disclose feminist views or my position as a feminist unless asked. These considerations on differing viewpoints and political positionings within research interviews, generate further questions pertaining to the role of other social differences and dynamics in the co-creation of knowledge.

### **Gendering Fieldwork: Who Buys the Coffee?**

Five of the interviews were conducted in cafes at participants’ requests. As the research participants were volunteering their time and stories for the purposes of the research, it is usual practice for the researcher to buy the participant a drink. Nevertheless, all five participants asked what I would like to drink before they sat down. I insisted that I would buy the coffee in light of them giving their time for the interview. After several attempts insisting that I would pay, three participants proceeded to ask, “only if you’re sure?” The other two participants insisted they bought their own drink. One of these participants stated he’d buy his own coffee as I was a student. This participant had positioned me differently from the other male respondents I interviewed in cafes, by referring to my status as a student. These informal discussions prior to starting the interview draw attention to possible gender and cultural practices and dynamics between the interviewer and interviewee. Arendell (1997) discusses similar instances in her research with male divorcees, where paying for the bill brought up particular challenges around who should pay. She considers if stereotypical gender relations underpinned these situations, whereby an expectation lies on men to pay for expenses.

The instance where one participant made reference to my student status and financial position suggests that the participant considered that purchasing coffee would be a considerable cost to me, but this cost for

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13 The participant was referring to the feminist movements in the 1990s that campaigned for political and social changes.

14 I did not share the same views as the participant on Donald Trump, the former President of the United States of America, on the grounds of Donald Trump’s position against women, gender and sexual minority and migrant rights.

him (a white-collar worker) would be insignificant. However, he then proceeded to talk about how he knows what it is like being 'a poor student.' While on the one hand the financial and social status differences between myself and the participant became obvious, similarities of student life was shared. Drawing attention to my student status and commenting on his former experiences as a student, suggests that the participant was also engaging in a practice of sourcing common ground to build rapport and bridge other notable differences between us. Such differences in this instance relate to age, employment status and gender. Given the centring of gender within this research thesis, and aligning with feminist methodologies, examining the role of gender within the research process and interview settings necessitates further interrogation.

### **Women Interviewing Men**

Gendered perspectives play a critical part in how data is interpreted and situated in the wider context of the production of knowledge (Cope, 2002; Horn, 1997). Underscoring qualitative research is the negotiation of power, and how hierarchical oppositions and power imbalances may manifest within the research process. Such imbalances can relate to the ways in which the researcher constitutes a position as the knower, while the respondent is situated as those who are to be studied (Hesse-Biber & Piatelli, 2012; Liamputtong 2007; Moss, 2002). The researcher has control over how the interview material is interpreted and presented (England, 1994; Kvale, 2006; Liamputtong, 2009). Hierarchical oppositions between the knower and known are given particular attention in qualitative methodologies in order to minimise the risk of exploiting those who participate in research studies (England, 1994; Kvale, 2006; Liamputtong, 2009).

From the beginning of this project, it was my intention to conduct research and adopt practices that would minimise power inequalities. One way of doing so was to foster reflexive practices that promote understandings about how positions of power can be used to shape and exploit research (England, 1994; Kvale, 2006). In order to minimise power imbalances, I maintained practices that sought to reduce my position as the 'powerful researcher.' During interviews, for example, I listened intently without interrupting. This ensured participants had a sense of control over their stories and how they told them (Riessman, 1987). Secondly, I provided transparency regarding the research focus and answered any questions with honesty. Furthermore, I undertook member checking, to ensure participants had copies of their interview transcripts and to affirm correct interpretation and representation of the interviews (Cope 2010; Hesse-Biber & Piatelli, 2012; Falconer Al-Hindi & Kawabata 2002; Vallianatos, 2015).

As a female researcher interviewing men, an imbalance of power throughout the research process was a concern. As Pini (2005), Horn (1997), and Lee (1997) contend, it is not only the interviewee that can lack control over the interview. Interviews conducted between differing genders have the potential to enforce typical hierarchical gender structures (Holmgren, 2013), as male participants may use the interview as an opportunity to exercise power over the female interviewer (Pini, 2005). Furthermore, female scholars researching men and masculinities have faced questions pertaining to their credibility and possible gender biases (Lefkowich, 2019). Female researchers can also experience inappropriate and unwelcomed comments and behaviours from male participants (Arendell, 1997; Lee, 1997; Mac an Ghail et al., 2013;



Pini, 2005). As experienced by Pini (2005) in her research on male leaders in an Australian agriculture organisation, comments were made relating to her looks, and how the men best 'behave themselves' with her. It was apparent that Pini felt uncomfortable in the interview settings with the participants in her study, which highlights power dynamics at play between women and men in interviews. Horn (1997) for example, had to continually (re)negotiate her position as a woman and researcher, while interviewing male police officers who saw her as naïve. As these scholars suggest, some men seek to uphold masculinity in maintaining hegemony and control in potentially 'problematic' spaces such as interviews.

Before entering 'the field,' I was familiar with the aforementioned texts on challenges female researchers can face when interviewing men. I expected to encounter some problematic power dynamics. There were a couple of instances where the participants maintained a firm control over the interview and what was discussed, which is further explored in the following section on the interview environment. However, I did not experience any problematic instances where a participant was inappropriate or made me feel uncomfortable.

There are possible benefits of women interviewing men that have been noted by Horn (1996), Gurney (1985), and Lefkowich (2019). These include women researchers being perceived to be 'invisible,' non-threatening and potentially incompetent, thus opening up spaces that may be closed to male researchers (Horn, 1996; Lefkowich, 2019). This draws attention to the role of masculinity and how patriarchal thinking underpins gender relations. Men have an investment in maintaining a particular masculine self, which includes undertaking 'masculine' performances especially in front of other men (Connell, 1995, 2000). These masculine performances indicate a potential reason behind why women have success in getting men to 'open up' and disclose personal experiences (Horn, 1997; Lefkowich; 2019). Interestingly, in their research on speed dating, Mac an Ghail et al. (2013) saw a rapid increase in men responding to their research calls after they had changed to a female interviewer. However, as Gurney (1985) states, women researchers need to work hard to find a balance between being viewed as non-threatening while being regarded as credible and competent researchers. She proceeds to critically review how youthfulness and a patriarchal positioning of women can shape feelings of comfort and trustworthiness. Reflecting on all of the interviews I conducted as part of this research, I believe that my gender and perhaps my age (26-27 years old at the time of interviewing) facilitated a non-threatening space. The role of my positionings as researcher was substantiated when two men cried during their interviews, suggesting they felt comfortable displaying emotion in my presence. Furthermore, during these moments, I also did not sense an attempt to stop/control their crying which may have occurred during an interview with a male researcher.

As a woman interviewing men, an argument can also be presented regarding how women interviewers may be sensitive to identifying male experiences and particular masculine relations that could otherwise go unexamined by a male interviewer who may share similar experiences (Hearn, 2013; Pini & Pease, 2013). Being an 'outsider' to masculinity dynamics may therefore provide insight into social constructions of what it means to be a man as well as rural men's realities in disaster.

## **The Interview Environment**

Establishing trust and rapport is regarded as an essential facet for a successful interview (King & Horrocks, 2010). An aim for the researcher is to facilitate a comfortable environment for participants to feel relaxed and secure during the interview (Liamputtong, 2007). Bondi (2014) argues that success in establishing rapport and trust is evident in how participants 'open up' within the interview. One indication is the participant's willingness to share personal experiences with the interviewer (Bondi, 2014). Non-verbal communications by the interviewer such as nods and smiles that imply intently listening, can also relax the participant within the research environment (Bondi, 2014). While it is not always possible to know exactly what factors build rapport and trust between the researcher and participant in an interview (Bondi, 2014), it is argued that the role and skills of the researcher play a part in constructing an environment in which trust and rapport can manifest (King & Horrocks, 2010). In relation to the interviews discussed in this thesis, it was apparent that 15 of the participants felt comfortable and relaxed during interviews. Dialogue flowed easily, as they shared personal information and experiences, and their relaxed body language suggested they were at ease in the interview environment. The only time when body language drastically changed was when participants got emotional while talking about distressing moments in the aftermath of the earthquake. This is explored in more detail in Chapter Five. Given that most men during their interviews displayed some level of emotion, it may be inferred that a degree of trust and rapport was established with the interviewer.

Within one interview, it was clear that the participant was 'closed down' for the entire interview. He sat with his arms crossed, presenting an embodied defensive response to me and the questions I asked. His responses to the questions were short and overall, the interview lasted only 20 minutes. Bondi (2014) talks about even as an experienced interviewer, she too can fail to build rapport with participants and often it is not always possible to achieve a relaxed and constructive interview. In the case of this short interview, I tried to make the participant feel more relaxed by talking casually and asking general questions not related to the earthquake. However, I was unable to ease his discomfort. Interestingly, at the end of the interview when his wife sat with us and proceeded to talk about how they had been affected as a family, the participant started to 'open up' and share more of his story. Within three other interviews, particularly at the beginning of the conversations, the interviews felt formal, almost as if it was a work meeting. These interviews were conducted at the men's places of work at their request, two men were in suits while the third was in his emergency services uniform. On reflection, his emergency services uniform, coupled with the interview being conducted at an emergency service station, may have contributed to shaping an unequal power imbalance within the interview. I noted that on several occasions for example, that this participant would ask 'what's the next question?' Deliberately wanting to move onto the next question indicates that he did not wish to continue answering the current question, thus exercising control over what he wanted to discuss and how much detail he wanted to provide. Interestingly, all three men maintained a 'professional' position where they spoke mostly about the physical aspects of the earthquake, how work was affected

and the additional work they undertook in its aftermath. It felt to me that there were barriers to get these men to talk about more personal experiences of the earthquake. One participant, after being asked about the condition of his house spoke briefly how it was damaged yet did not discuss how this made him feel or how he was coping living in a damaged and potentially unsafe house. I came to the conclusion that these participants wanted to maintain control of the interview, as they did not want to disclose any intimate or emotional aspects of their earthquake realities.

The interview environment can influence the interview process (Valentine, 2005), for example, interviewing people within their own homes can facilitate a more relaxed environment for the participant (Valentine, 2005). Interviewing in formal spaces such as a university campus can heighten vulnerability and/or enforce racialised, historical and patriarchal experiences of feeling 'out of place' (Lefkovich, 2019). For these reasons, participants were invited to choose the location of their interviews in order for participants to have a greater sense of control and safety over the interview environment. On reflection, the interviews conducted in participant's homes did produce more personal, informative and emotional accounts of the earthquake than those conducted in formal workplace settings.

### **Participants as Active Subjects in Constituting Knowledge**

Several participants shared that the interview was the first time they had told their earthquake story. Dale stated in our email correspondence that he wanted to take part in the research in order to help those who are impacted by future earthquakes. A theme that was apparent throughout interviewing, and which is discussed in further detail in Article Three presented in Chapter Five, is silence(s). Dale for example, by not talking about the personal effects of the earthquake with anyone prior to the interview, had deliberately silenced his experience. Therefore, volunteering and sharing his story for the purposes of this research can position Dale as an active agent in the research process, and in the constitution of knowledge about rural New Zealand men's experiences of disaster. Conversely, on first contacting Gary, he explained that he wanted to participate in the research in order for his story to be heard. As discussed in more detail in articles presented in Chapters Five and Six, incorrect information on the death of Gary's partner Jo following the earthquake led to greater emotional pain, which further complicated his post-disaster social environment and recovery. As a result, Gary wanted to 'set the record straight' on Jo's death. Understandably, Gary asked who would read the research, his story and how would the information be disseminated. My response was that the work would be published in journal articles, predominately read by academics, I would also present the research at conferences. I got the sense that Gary was happy with the proposed methods for sharing his story. It became evident, especially in Gary's talk, that the interviews enabled an opportunity and space for participants to contribute to shaping the broader narratives of the Kaikōura/Waiiau earthquake. A degree of governance over what is told and how experiences are shared is a poignant facet of feminist research methodologies. One of the reasons for selecting interviewing as a method of enquiry was to support the varying viewpoints and reasons that participants may have had for partaking in the study. The following section outlines the methods used in the study.

## **Methods**

This section presents an overview of participant recruitment methods as well as the qualitative data gathering, and analysis methods employed to investigate rural men's accounts of the Kaikōura/Waiau earthquake and tsunami. A summary of the rationales for selecting the theoretical works of Gatens (1996), Bourdieu (1977, 1984, 1986, 1989, 1990a,b), Massey (1994, 2005) and Davies (1990, 1994, 2001) that inform the analyses in the four articles of this doctoral thesis is also provided.

### **Recruitment**

Participant recruitment began in November 2018 and continued until July 2019. Prior to engaging with recruitment methods, conversations were held with supervisors regarding possible challenges to accessing male research participants for the study. As Mac an Ghail et al. (2013) infer, a willingness to partake in research can signal a failed masculinity which may deter some men from volunteering. Furthermore, men may be reluctant to discuss distressing events and to reveal vulnerabilities (Lefkovich, 2019). Given the research context was a significant earthquake which occurred only two years prior to the interview period, it was expected that many who had experienced the earthquake may have experienced some levels of trauma and therefore might wish to avoid sharing their story for research purposes. While reluctance to participate and ongoing trauma were possible concerns that could hinder recruitment, nineteen men did volunteer to share their stories for the purposes of this doctoral study.

Recruitment methods yielded eight participants through advertising in community newsletters and newspapers, five men volunteered as a result of postings on community group pages on social media, three research participants were recruited through personal networks, a further two men volunteered for the study as a result of posters (see Appendix F) displayed in libraries and community halls throughout Marlborough and North Canterbury. In some instances, women contacted me on behalf of their husbands seeking more information. My supervisors also utilised their social and professional networks for recruitment purposes. This led to one man volunteering to be interviewed for the study. The recruitment process was slow and only one or two men got in contact as a result of each advertisement.

### **The Research Interviews**

Interviews were conducted with nineteen men across Marlborough and North Canterbury and audio-recorded digitally. An information sheet was sent via email to each participant prior to the interview (see appendix C). This document provided details about the research study, research criteria, interview topics, data storage and participant's rights. Contact details for the research supervisors and Massey University Human ethics staff were also provided should participants wish to discuss any concerns about the research.

At the beginning of each interview, I talked through the information sheet and ensured that the participants were fully informed about the research process. A consent form<sup>15</sup> (see appendix D) was provided to each participant, which was signed before the interview began. Obtaining informed consent is central to ethical practices in research as it ensures the participant knows and understands the process of research, the potential risks and importantly that their participation is voluntary, including understanding their rights to decline or withdraw from the research (Liamputtong, 2009; Patton, 2015). While the significance of informed consent pertains to the process of participants understanding their rights, giving consent, and providing an opportunity for questions, the interview only began after the participant had signed their consent form. Field notes were also taken during and after the interview to collect 'unheard' data (Hutcheson, 2013) that was not captured on the voice recorder. The notes complemented the interview transcripts as they provided information on embodied emotion, body language, and facial expressions.

The ages of participants ranged from 35 years to 75 years. Occupations included emergency service personnel (2), civil servant (2), emergency manager (4), builder (1), self-employed (6) military personnel (1), vineyard worker (1) and retiree (2). One participant was Māori, one was British, and 17 men were pākehā. An interview schedule was developed to act as a conversational guide which was approved by the Massey University Human Ethics Committee. It included questions and areas of discussion that could be explored during interviews (see Appendix B). Some of the topics discussed in the interviews centred around: experience of the earthquake and its aftermath; impact on family and community; access to resources; feelings about the earthquake; forms of support available; key challenges; and health issues. I was not restricted to the interview schedule and at times I let the participant lead the interview through their personal stories of the Kaikōura/Waiiau earthquake. This is a strength of semi-structured interviewing and an approach embraced by feminist researchers as a means for participants to tell their stories in their own way, in their preferred environment and in their own time. Some participants for example, deviated from the interview schedule and focused their storytelling on the stresses and challenges created by insurance bureaucracy. Others spoke about the complexities and emotional burden of aftershocks and supporting their families.

## **Transcription**

Each interview was digitally recorded with permission from the participant and manually transcribed verbatim by the researcher following each interview. Silences and pauses were indicated by a lexical convention that depicts the length of the silence and pause. Noises and pause interjections such as "erm", "urm", "er" were also recorded in the transcripts. These hesitations were noted as they can reflect meaningful data (Hutcheson, 2013; Poland & Pederson, 1998). While manually transcribing is a time-consuming and labour-intensive process (Bird, 2005; Braun & Clarke, 2006; Jackson, 2001), there are benefits for researchers who transcribe their interview materials, as transcribing provides data familiarity and facilitates early analysis of data (Bird, 2005; Braun & Clarke, 2006; Riessman, 1993).

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15 Signing a content form gives agreement to partake in research. It is an important document that ensures that participants have been fully informed about the study and provided informed consent in regards to being part of a study.

Participants were provided with the option of receiving an electronic or paper copy of their interview transcript and release of transcripts form (see Appendix E). In the instances where the latter option was requested, a prepaid and return addressed envelope was provided along with paper copies of the relevant interview transcript and a release form. This practice aligns with feminist reflexivity and member checking to ensure that participants have access to read and change the interview transcript (if they wish) and to affirm that an accurate representation and interpretation of the interview has been gained.

### **Ethical Considerations**

Ethical approaches to research are practiced and are embedded throughout feminist epistemologies and methodologies (Bell, 2014; Moss, 2002). Researching rural men's experiences of the Kaikōura/Waiiau earthquake and tsunami draws attention to the potential emotional distress that may have been created during and after the interview. Ethical considerations are important to the processes of research and serve to safeguard the welfare of both participant and researcher (Bell, 2014; Tolich & Davidson, 1999) by embracing respect, empathy and transparency (Austin, 2015; Bondi, 2003). Obligations and practices adopted throughout the research include confidentiality, autonomy, respect, sensitivity and avoidance of a conflict of interest (Massey University Ethics, 2017). This research was assessed by Massey University Human Ethics Southern B Committee in April 2018 and was granted ethical approval (approval number: 18/13 - the approval letter is included in Appendix A). The methodology was developed around the facilitation of ethical practices and considerations, in accordance with feminist research processes and methods. In brief, throughout the research process, I sought to minimise distress and discomfort of the participants. On two separate occasions two participants cried. Adhering to an ethics of care, I asked if they wished to stop the interview. One participant declined and wanted to continue. The other participant did want to stop the interview, he took 5 minutes to get a drink of water and then stated he wanted to continue. I ensured that I had tissues to hand as well as contact information for local support services, on both occasions they were offered to the participants. Both declined these services. In addition, in the unlikely event that Marlborough and/or North Canterbury experienced another significant natural hazard event while I was in the field, I maintained supplies, including food and water with me in the hotel and car in order to minimise my reliance on local communities and resources.

In New Zealand ethical considerations include conducting research in accordance with the three principles partnership, protection and participation developed from the articles of the Treaty of Waitangi. Treaty obligations were adhered to, and Māori cultural advice was gained through consulting with two of my PhD supervisors who are tangata whenua. Māori culture is an integral to Aotearoa New Zealand, thus including Māori in this research was important.

### **Vulnerable Participants and Sensitive Topics**

Establishing trust and rapport between the researcher and participant within a safe, confidential environment is important in order to provide depth to the interview, but also to ensure the participant does not feel exposed or distressed talking about a particularly difficult time (Liamputtong, 2007). Hesse-Biber

and Piatelli (2012) argue that from the start of the research process, the participant is in a vulnerable position as the researcher's voice is the dominant discourse within writings of the work. Feminist researchers strive to limit power imbalances throughout the research process (Hesse-Biber & Piatelli, 2012) arguing that the focus for interviewing any particular group of people who may be considered vulnerable due to burden or struggle (Austin, 2015), should be to benefit the group or individual (Flaskerud & Winslow, 1998). It has been documented that interviewing participants following a difficult or traumatic event can provide a therapeutic experience for some participants (Cuncliffe & Ramcharan, 2002; Parnis et al., 2005) as people have an opportunity to talk to someone about their experiences in a confidential setting (Liamputtong, 2007; Patton, 2015). This outcome of interviewing aligns with the research principle of beneficence where the researcher commits to ensuring the well-being of the participant. One exemplar noted in this research, was Gary who commented on how he gained more enjoyment talking to me in the interview than he does talking with his counsellor.

As the subject of the interview is extremely sensitive and personal, and in line with the principle of non-maleficence or 'do no harm,' a support sheet was available for participants who wished to take a copy. This printed document listed local contact information for professional counselling and support services. A follow up email was also sent 1-2 weeks after the interview which included the interview transcript and transcript release form, but also included questions that asked how the participant was feeling. Offering to provide participants with a summary of the findings once the research has been completed is also an important element in feminist research as well as a key ethical consideration. This practice aligns with the key principle of participation within the Treaty of Waitangi, as well as upholds ethical values such as cooperation, respect and transparency. Each participant was asked if they would like a summary of the findings. Upon completion of the thesis, summaries will be sent to those that requested this option.

### **Data Protection and Confidentiality**

This PhD research was conducted in accordance with Massey University's Ethical Code of Conduct, the Privacy Act 1993 and feminist practices in research. This practice of ethics ensures that participant confidentiality was maintained, as well as limited disclosure risks pertaining to personal details and sensitive information upheld. In accordance with ethical procedures, all printed and digital copies of the data were stored securely in locked desk drawers and on a password protected university and personal computer that only I had access to. The data gathered will be securely stored for five years, and then destroyed. Confidentiality was paramount within this research as the project has dealt with a sensitive subject, and disruption of confidentiality could negatively affect participants to a significant degree. Identifying information was removed and pseudonyms were used for 18 participants in all presentations of the research. An exception was Gary, who requested the use of his real name as he wanted to be identified in the research. It was explained to Gary that using his name coupled with his story would clearly identify him and he restated that he wanted his name to be used.

All interviews were conducted at venues of the participants' choosing, and most often men chose to have the interview within their homes. Carrying out interviews within participants' homes further minimises the risk of participants being publicly linked with the research. However, on the couple of occasions where the interviews were conducted in cafes and workplaces, participants were content with the increased risk of their connection to the research being identified. While supervisors did not have direct access to all interview transcripts, the names of participants or their locations, earlier transcripts were shared with supervisors in order to assess the utility of the interview schedule and interview techniques employed. All three of my supervisors were happy to sign a confidentiality agreement (see Appendix G, H, I), ensuring further safeguards around participant information.

### **Interpreting and Analysing Stories of Disaster**

Thematic analysis was used to analyse the interview material. This method of analysis draws out themes from the data gathered (Braun & Clarke, 2006, 2020; Maguire & Delahunt, 2017). Using a thematic approach to analyse the data is compatible with this study as it supports participant collaboration by giving meaning to people's stories and experiences (Aronson, 1995; Braun & Clarke, 2006). A thematic approach to analysis is flexible as working with complex, diverse and extensive interview material enables rich and detailed accounts of the data (Braun & Clarke, 2006, 2020; Maguire & Delahunt, 2017). Themes capture important and interesting elements in the data in relation to the research objectives in order to provide a comprehensive insight that is beyond numbers (Braun & Clarke, 2006; Castleberry & Nolen, 2018). A key limitation of using this approach to analysis is that it is the researcher who determines the topics, which are in turn shaped by the methods taken to identify the themes (Braun & Clarke, 2006).

Transcripts were printed and coding began by assessing each paragraph and asking the question "what does this paragraph discuss?" This inductive process is a 'bottom up' approach that facilitates the identification of themes from the data gathered (Bryman, 2016) and does not try to fit the interview material into a pre-existing set of codes or themes (Braun & Clarke, 2006). Additionally, a deductive 'top down' approach to thematic analysis was used, where themes were identified during the initial literature review and the interview material analysed in relation to these themes (Braun & Clarke, 2006). The interview transcripts were also scanned for topics that directly related to the research aims and objectives. Decisions related to the conduct of the research coupled with the research questions (although flexible) formed prior to the data collection, are also deductive approaches to research. Examination of the interview material for this thesis combined inductive and deductive methods (Braun & Clarke, 2012; Crabtree & Miller, 1999) to facilitate both systematic and flexible modes of analysis (Cope, 2010). Data was manually coded, through making decisions as to what is considered a theme based on relevance to the scope/objective of the study or the theoretical framework being used (Braun & Clarke, 2012).

Braun and Clarke (2020) contend that full immersion in the data, questioning, reading, rereading, thinking and writing is an important process of thematic analysis. The authors define a code as being "an analytic unit or tool, used by a researcher to develop (initial) themes" (p. 13). In many cases, 2-4 codes were



identified from each paragraph using both inductive and deductive methods. The individual paragraphs along with the related codes were transferred into a table in Microsoft Word document and organised into themes. Themes, similar to codes, are “multi-faceted crystals – they capture multiple observations or facets” (Braun & Clarke, 2020, p. 13) associated with a particular issue within the interview transcripts. Thus, the difference between a code and theme is whether it has a singular meaning or multiple meanings (Braun & Clarke, 2020). During analysis, five themes were identified as being important to rural men’s experiences of the Kaikōura/Waiiau earthquake: *sense of place, emotion, mobility, time and space*. While mobility, time and space can constitute separate themes, through the analysis presented in Chapter Six, it is demonstrated that these concepts are intrinsically connected. Participants’ narratives from the transcripts were used to showcase the five themes and to provide an interpretation of rural men’s stories of the Kaikōura/Waiiau earthquake and tsunami. These discussions were written up as independent journal articles and subsequently form part of this thesis as Articles Two, Three and Four.

In order to critically analyse the key themes identified across the interview material, social theorists and theories that are conducive to social constructionism and a feminist epistemology are drawn upon. The works of Moira Gatens (1996), Pierre Bourdieu (1977, 1984, 1986, 1989, 1990a,b), Karen Davies (1990, 1994, 2001) and Doreen Massey (1994, 2005) enhance analysis used from the gender and disaster literature and the storied earthquake narratives within the thesis.

## **Theoretical Underpinnings**

### **The Body Politic**

Moira Gatens (1996) critiques the seemingly ‘natural’ and neutral body that underpins political and social theory through interrogating the concept of the body politic. The body politic is embedded in a fictitious masculine body that is constituted through sets of understandings about conventional and self-evident practices and authoritarian voices. Gatens (1996) argues that the body politic embodies a heterosexual, able-bodied, white man. Furthermore, she explores the exclusivity of the body political, that is, those included can speak from the body politic, supposing a ‘neutral’ voice. Bodies excluded “...are defined by mere nature, mere corporeality and they have no place in the semi-divine political body except to service it at its most basic and material level” (Gatens, 1996, p. 24).

Gatens draws attention to how the body politic is socially situated within an ahistorical social and political space. Regulation and control of a diverse range of bodies, including restricting “political vocabulary to one voice only: a voice that can speak of only one body, one reason, and one ethic” (Gatens, 1996, p. 23) is central to shaping the body politic. Gatens specifically focuses on women’s bodies arguing that those embodying the body politic, position and retain women in spaces of subordination.

The body politic is applied in Article One and presented in Chapter Two to illustrate how disaster management and scholarship are governed by social and political biases embedded in preparedness,

response and recovery. It is argued that marginalisation and exclusion within disaster policy and practice can be traced to dominant masculinist approaches that constitute the body politic of disaster risk reduction which work to exclude women and some men.

### **Bourdieuian Theory**

Bourdieu's concepts of field, capital, *habitus*, bodily hexis and doxa are employed in this thesis to accentuate the multiple, dynamic and complex social compositions, positionings and interactions within post-disaster space(s). Bourdieusian thought provides a foundation in which sets of understandings of hegemonic masculinity within social, temporal and geographical fields can be foregrounded. Engagement with Bourdieu's sociological concepts are helpful in exploring the ways in which masculinities facilitate shaping men's responses, actions, thoughts, behaviours, recovery and subsequent consequences of disaster events.

Bourdieu's theory of fields attends to the ways in which social and physical spaces are organised and upheld through dynamic, hierarchical, customary interactions and practices. Within the thesis, fields, as multidimensional spaces that govern beliefs, behaviours and social relations, are extended to the field of masculinity (Coles, 2008, 2009). The spatial boundaries of a field, which are precarious and contestable are continually (re)negotiated by exclusions at work within a field. Hegemonic masculinity as a field (Coles, 2008), works by defining and managing acceptable and valued behaviours, practices and capitals, thereby excluding those lacking or resisting these customary qualities.

Within this thesis, overlapping fields in the areas of masculinities, emergency response and rurality are identified. Using Bourdieu's theorisation of fields, attention is given to how men adhere to respected practices and rules which determine valued behaviours and customs in place. Aligning to accepted performances can be attributed to the *habitus*, which can be defined as getting a "sense of the game" (Bourdieu, 1990b, p. 110) through "embodied dispositions of individual will" (Bourdieu, 2000, p. 139). *Habitus* is contestable, socially constructed and informed by multiple social spheres and identities such as history, culture, class, gender and age. Shared understandings of *habitus* within a given field enables recognition and familiarity amongst social actors, qualifying and legitimising their position in the field. Furthermore, *habitus* exemplifies hierarchical structures within place. Like theoretical understandings of hegemonic masculinity (Coles, 2008; Connell, 2005, 2014), *habitus* informs the methods and practices men require to ascertain higher positions within a field.

Bourdieu's concept of capital is relevant to this doctoral research as it provides a theoretical grounding in which social and material interactions and transactions can be understood. Bourdieu conceptualised four key capitals: social, economic, symbolic and cultural. Social capital refers to the social networks, relationships and connections accrued. Economic capital encompasses the procurement of material and financial assets. Symbolic capital can be understood as prestige and honour, that in the context of masculinities, is intrinsically dependent on the recognition of masculine qualities by a social group. Bourdieu structures cultural capital into three core concepts: objectified, institutionalised and embodied.

He presents objectified cultural capital as the material possessions, constituting status and symbolic capital. Recognised exemplars are artwork, vehicles and property. Qualifications and appointed positions relate to institutional capital. Lastly, embodied capital refers to the unconscious learnt behaviours and social cues that can be shaped by the field and upheld by the *habitus*. Collectively, cultural capital enables an interpretation of the multiple behaviours, skills, knowledges and perceptions obtained, negotiated and validated within a given field. Forms of capital are used within the thesis to explore the ways in which people can maintain or increase their status within the post-disaster field through access to material, social, cultural and/or economic resources. Moreover, pre-disaster accumulation of, and post-disaster access to, Bourdieusian forms of capital can minimise or increase challenges for actors in response and recovery.

Bourdieu's notion of bodily hexis (Bourdieu, 1977) underpins cultural, economic, symbolic and social capital, whereby embodied, unconscious performances and actions are enacted through speaking, dressing, moving, thinking and feeling. Simply put, the body adopts appropriate and recognised routines pertaining to a given field. Using the image of The Southern Man as an exemplar, appearing in designer urban attire could be construed as being 'out of place' within a rural field which values men who align with rustic 'masculine' dress codes. While urban men may have access to economic, symbolic, social and cultural capital, positions within the field may be contested by wearing clothing and acting in ways that identify them as outsiders.

Underpinning fields is the social expectations, power relations and respected values upheld by the hegemonic group. Doxa tie *habitus*, forms of capital, and bodily hexis together within fields, and can be understood as normalised *habitus* wherein beliefs, actions and behaviours are unconscious and self-evident within social spaces. Doxa refers to the naturalisation of socially constructed behaviours, practices and conditions that support the shaping of *habitus*, capital, bodily hexis and fields. *Habitus*, field, bodily hexis, capital and doxa are relational, that is, they are constituted through shared meanings, interpretations and codes. Bourdieu's theories are applied within Articles Four and Five where sense of place and emotion as well as sets of understandings of rural hegemonic masculinity shape men's realities of the Kaikōura/Waiiau earthquake and tsunami.

### **Thinking on Space, Place, Time and Mobility**

This thesis is situated within geographical thinking on place, space, time and mobility. Discussions pertaining to place, space, time and mobility are presented in Articles Two and Four found in Chapters Four and Six<sup>16</sup>. The framing of this thesis is informed by feminist postmodern thinking on place, space, temporality and mobility. Key scholars in postmodernism such as Massey (1994, 1999, 2005) and Davies (1994, 2001) perceive space, place and time as encompassing social interactions within the built environment. The shift from modern to postmodern geography is concisely summarised by Soja, (1987) who states that "modern

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<sup>16</sup> Chapters Four and Six are journal articles that provide fuller discussions on place, space, time and mobility. To avoid repetition within the thesis, a decision was made to not include comprehensive overviews of space, place, time and mobility within this section of the thesis as well.

Geography never dared make this link between society and space too explicit, keeping it an in-house secret shared subliminally but not to be spoken aloud" (p. 291). Doreen Massey's early work sought to "link the geography of industry and employment to the wider, and underlying, structures of society" (Massey, 1984, p. x). A Marxist geographer, Massey pushed the boundaries and understandings of capitalism and the economy by suggesting that "the geography of a society makes a difference to the way it [the economy] works" (Massey 1984, p. x). Massey was influential in what Soja named the 'spatialisation of social theory' within the discipline of Geography in the 1980s (Soja, 1987). The postmodern turn in geographical thinking shifted focus towards seeing space, place and time as social constructs (Harvey, 1993).

Postmodern Human Geography endeavoured to take social differences and interactions in the construction of space(s) and place(s) seriously (Bondi, 1990). Furthermore, Bondi (1990) argues that geographers (Harvey, 1993; Soja, 1989) began including the term 'gender' in their work, yet failed to examine gender relations in place and space. While feminism tightly aligned with postmodernism, the works of feminist geographers in the postmodern geography debates were marginalised (Bondi, 1990). Nevertheless, postmodernism provided opportunities for feminist geographers to explore and situate the subjective, unstable production of knowledge, including creating spaces for marginalised topics (gender, age, ethnicity, sexuality) (McDowell & Sharp, 1997) and capturing the ways that time can reflect gendered divisions of labour (Davies, 1990, 1994; Scholten et al., 2012). As Davies (1990) argues, time becomes equated with capitalism, whereby time is measured in accordance with economic capital. Women's unpaid work, including caring roles, fall outside of what is considered 'work.' Therefore, women's and men's temporalities can differ. Davies (1990, 1994) coined the term *process time*, in order to capture the undervalued and/or unseen temporalities that shape women's lives. Process time contradicts common perceptions of time within Geography, including Hägerstrand's (1970, 1985) influential time-geography that proposed time and space could be measured and mapped. Problematic ideas about time and space are often noted within feminist writings in Geography, and although marginalised with the discipline of Geography, feminists have made significant contributions to understandings of space and time.

Feminist geography disputed the assumptions of bounded, restricted spaces by including the complex and multi-dynamic social relations which constitute space and place. Nevertheless, the application of space and place, including mobility within geographic research commonly deals with physically bounded understandings of space (Bondi, 2005b; Haraway, 1991; Massey, 1994; McDowell, 1999; McQuoid et al., 2015; Rose, 1993) and movement (Cresswell, 2006; Ellegård, 2018; McQuoid & Dijst, 2012). In particular, Geography has not fully engaged with metaphysics in geographic enquiry (Grimes & Nubiola, 1997; Rose, 2004). Scholars that have adopted metaphysics as a lens in which to analyse geographic phenomena, contend that metaphysics enables an understanding of the richness and complexities of social life that underpin the ways in which spaces (Gren, 2001; Grimes & Nubiola, 1997; Hottola, 2005; Rose, 2004) and the pliability of movement (Adams, 2017) can be understood. It is argued in this thesis that metaphysics and feminist geography have shared interests, that include understandings of social interactions within the construction

of space(s) and place(s). Within Article Four/Chapter Six ideas are presented to extend postmodernist thinking on space, to capture the metaphysics of disaster realities and the societal undercurrents that guide rural men's responses and recoveries.

Postmodern feminist geographic thinking on space, place and time underscores this thesis. In particular, postmodern ideas are used in the research Chapters Four, Five and Six through analysing subjective knowledges and social constructions of gender. Positioned alongside postmodernism, this thesis draws attention to the ways in which gender shapes space(s) within disaster locales. Deploying the works of Gatens, Bourdieu and place, space, time and mobility this thesis illustrates men's subjective dimensions of their personal earthquake stories. These theoretical perspectives are embedded in socially constructed ways of knowing. In brief, the theoretical positions contend that the world and the social interactions within it are socially constructed. This supports the key idea that forms the basis for the thesis that disaster experiences are deeply social.

## Summary

This chapter outlined the feminist methodological framework that shaped the research on rural men's ontological stories of the 2016 Kaikōura/Waiiau earthquake. Feminist epistemology, and methodology as well as interpretivism and social constructionism formed the foundation of the research design. Feminist research methodologies informed the data collection, interpretation and analysis. Rationales for employing qualitative research methods and conducting thematic analyses of participants' talk to support the gendered interpretation of this doctoral research, were explored. Reflexive research practices and the ways in which similarities, and differences, can influence the interview proceedings were also addressed. A synthesis of ethical considerations for the study of sensitive topics, actions undertaken to maintain confidentiality and mitigate harm to the participant and researcher was offered. The methodology chapter concludes by providing an overview of the theoretical underpinnings of the thesis, and the relevance of Pierre Bourdieu's (1977, 1984, 1986, 1989, 1990a,b) work on capital, field, *habitus* and *doxa* and Moira Gatens' (1996) ideas about the body politic which inform the research were outlined. Theoretical perspectives advanced by Doreen Massey (1994, 2005) and Karen Davies (1990, 1994, 2001) were also applied to analyse and subsequently shape arguments about how senses of place, mobile temporalities, spaces and gender relations are embedded in individual narratives of the Kaikōura/Waiiau earthquake.

The merging of perspectives and approaches to research presented within this chapter, all of which methodologically align, inform the analysis of the research outcomes that are presented in the subsequent research chapters. The following chapter is the first of the three substantive chapters/articles that provide varying interpretations of rural men's lived realities of the Kaikōura/Waiiau earthquake. The published article employs Bourdieu's theories in an analysis of how sets of understandings about masculinities shape response and recovery.

# 4

## Gendered Geographies of Disaster

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*“There is no gender identity behind the expressions of gender; identity is performatively constituted by the very expressions that are said to be its results”*  
*Judith Butler (1990, p. 25).*

The following manuscript introduces the New Zealand Southern Man trope and examines the ways in which this masculine figure that constitutes a form of rural hegemonic masculinity, shaped how men dealt with adversity generated from the Kaikōura/Waiiau earthquake. Pierre Bourdieu’s (1977, 1984, 1986, 1989, 1990a,b) theoretical insights are woven throughout the chapter, coupled with an examination of sets of understandings about The Southern Man, to guide an analysis of the interview material and to present further understanding of rural men’s realities of disaster. Specific attention is given to Bourdieu’s concepts of field, *habitus*, capital and doxa that enables an exploration of unseen, or ‘taken-for-granted’ social practices.

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## “I Wouldn’t Trade This Country of Ours for Anything”: Place, Identity and Men’s Stories of the 2016 M7.8 Kaikōura/Waiau Earthquake

### Abstract

There is an emerging area of research that examines men’s personal disaster accounts, including how gender identities and sets of understandings about masculinities shape response and recovery. This paper adds to the literature through providing a geographic enquiry into rural men’s sense of place and identifying the impacts of the Kaikōura/Waiau (7.8M<sub>w</sub>) earthquake sequence on rural men. Face-to-face interviews were conducted with 19 men across Marlborough and North Canterbury who experienced the earthquake. Findings explored how rural masculine identities, exemplified in the Southern Man trope, were integral to rural men’s earthquake stories. Drawing on Bourdieu’s concepts of *habitus*, capital and doxa and using field as a geographic metaphor for place, the research identified that participants relied upon rural skills and local knowledges to navigate the changing dynamics of place. More broadly, this paper illustrates how post-disaster impacts on individuals and communities may be traced through examining a gendered sense of place.

**Keywords:** Gender, disasters, masculinity, rural identities, place, Bourdieu

### Introduction

At 12:02am on 14<sup>th</sup> November 2016, Aotearoa, New Zealand experienced a 7.8 magnitude earthquake centred in the South Island. Over 20 faults ruptured, identifying the earthquake sequence as one of the most complex recorded globally (GeoNet, 2016). Two people died and approximately 580 residents reported injuries to New Zealand’s Accident Compensation Corporation<sup>17</sup> (Stevenson et al., 2017). There was significant disruption to infrastructure with over 38,000 insurance claims made to The Earthquake Commission (EQC, 2019; Stevenson et al., 2017).

People have strong attachments to locations, neighbourhoods and countries (Massey, 1994), so a disaster, defined as the interaction of hazard and location (Wisner et al., 2004), may impact sense of place. Research projects that have examined sense of place in the aftermath of disaster, have captured experiences of displacement (Adams-Hutcheson, 2017a,b; Chamlee-Wright & Storr, 2009; Cretney & Bond, 2017; Dickinson, 2019), decisions for returning to hazardous environments (Block et al., 2019), health impacts of those experiencing a loss of place (Akerkar & Fordham, 2017; Tapsell & Tunstall, 2008) and the transformation of social space(s) through community transitional activities (Clope & Dickinson, 2019).

Research into place-specific identities has also emerged in the disaster literature (Cretney & Bond, 2017; Gaillard et al., 2017b; McKinnon et al., 2017; Tyler & Fairbrother, 2013a). Some of this research (Akerkar & Fordham, 2017; Tyler & Fairbrother, 2013a) explores how place is intrinsically gendered (Massey, 1994). This paper brings together sets of understandings about rural, masculine New Zealand identities, with Pierre Bourdieu’s concepts of field, *habitus*, doxa and capital to provide an in-depth analysis of how heterosexual men’s attachment to place, in combination with gendered values and behaviours shape rural men’s realities

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<sup>17</sup> ACC is a crown entity that provides medical and income insurance for accidental injuries.

of the Kaikōura/Waiiau earthquake. Understanding how gender relations underpin individual experiences of disaster can also be gained by exploring the ways that ideas pertaining to masculinities embedded in notions of place contribute to men's disaster recovery. Analytical findings are presented and emergent themes including *sense of community, us and them, identities in place and the place of landscape*, are discussed.

### **Disasters in Place**

Place enquiry seeks to interpret the relations and processes embedded in the economic, environmental, cultural, political and social aspects of locale. As Cresswell (2004) writes “place is a way of seeing, knowing and understanding the world” (p. 11). Tuan's (1977) early understanding of place stipulated that space becomes place through meaning and emotion. Senses of place are therefore shaped through experiences and interactions (Massey, 1994; Tuan, 1977). Feminist geographers critiqued understandings about space and place as quantifiable, physical and bounded locations (Agnew, 1987) that can be defined and measured (Bondi & Davidson, 2005). Arguing instead that quantitative approaches to place, such as statistical modelling and geographic information systems tended to overlook the intersections of gender, class, sexuality, race and age as well as how identities contribute to constructing people's experiences and relationships within place (Bondi, 2005b; Gilbert & Masucci, 2005). Massey (1994) extended knowledge about place through exploring the ways in which global, social and cultural processes shape local, social interactions. She challenged the idea that place is a fixed, singular location, static and bounded. Analysing changes in the dynamics of diverse people's sense of place post-disaster, enables an understanding of people's connection to land, communities and home (Chamlee-Wright & Storr, 2009; Cloke & Dickinson, 2019; Cretney & Bond, 2017; Silver & Grek-Martin, 2015).

Research has investigated sense of place in the context of disasters (Chamlee-Wright & Storr, 2009; Cretney & Bond, 2017). Attention has been drawn to how decision-making is shaped by complex factors, such as the multiplicity of emotions tied to home, which may promote or constrain disaster recovery. As an exemplar, New Zealand research considered the displacement and relocation of residents following the 2010-2011 Canterbury earthquake sequence (Adam-Hutcheson, 2017a,b; Cretney & Bond, 2017; Dickinson, 2019). Adams-Hutcheson's (2017a) work highlights how trauma is evoked through post-disaster relocation which causes a loss of sense of place. Dickinson (2019) identified that while relocation decisions were shaped by political injustices and problematic relocation schemes, emotional attachments to place played a role in choosing to stay or leave. International research has similarly emphasised, that despite changes in sense of place for some people, many wish to remain within their disaster affected communities (Tapsell & Tunstall, 2008) as people can gain healing through continuity and an intact sense of place in post-disaster spaces (Block et al., 2019). In their work on the February 2011 Canterbury earthquake, Cretney and Bond (2017) recognised that place identity can facilitate personal resilience, while tensions arising from a desire to return to pre-disaster environments can act as a constraint that can hinder recovery. Similarly, Chamlee-Wright and Storr's (2009) examination of sense of place in post-Hurricane Katrina New Orleans ascertained that negative shifts in quality of life and connections to locale, culture and identity governed



evacuee's decisions to return. The geographical literature highlights the power of sense of place and outlines how examining place can be an analytical tool for developing sets of understandings about behaviours, actions and decision-making processes in disasters. In this paper, geographical literature has been used to support key findings, and develop contextualised understandings of the ways relationships between place and forms of hegemonic masculinity inform New Zealand rural men's disaster realities.

### **Gendered Sense of Place in Disaster**

There is a growing body of work examining the diversity of men's experiences and the role of masculinity in disasters. Enarson and Pease (2016) argue for greater inclusion of men in gender and disaster research in order to understand the intersections of masculinities and men's realities. While it is documented that men receive more aid and resources in disaster spaces, some men turn to unhealthy coping methods such as alcohol abuse if their personal needs are neglected and/or they lose meaningful masculine values, such as paid work (Dominelli, 2020). Eriksen (2014) and Tyler and Fairbrother (2013a, 2018) examined how hegemonic masculinity shapes preparedness and responses to bushfires in Australia. They address the complexities of gender roles in bushfire decision making including why some men stay to defend homes whilst encouraging families to evacuate. Tyler and Fairbrother (2013a) drew on cultural narratives of hegemonic rural masculinity to highlight how action was underpinned by a man versus nature mentality as men refused to be beaten by the bushfires. The authors contend that, like New Zealand, Australian rural masculinity stems from a colonial history of migration that perpetuates discourses of control, physical strength and risk taking. The literature reviewed in this section highlights how place-specific identities construct disaster narratives.

An examination of gender relations enables further understanding of the concept of place by recognising how identities shape the experience of locale (Bondi & Davidson, 2005). Akerkar and Fordham's (2017) Tewkesbury and Morpeth floods research for instance, identified that for women, recovery strategies were mediated through social place variables such as sense of community, feeling at home, and caring about neighbours; while for men, action was guided by a sense of community, social cohesion and degree of belief in self. Focusing on gay identities, McKinnon et al., (2017) considered how memories and experiences of the 1980s HIV/AIDS epidemic in Australia and New Zealand's gay communities, continue to inform capacities and vulnerabilities to present day disasters. Their research indicated important insights concerning how feelings of vulnerability and notions of resilience can be tied to gender, sexual identities and memories of disasters. Their study speaks to the value of examining intersections between gender, sexuality and place in research on social constructions of disaster (Gaillard et al., 2017a, b).

The conceptual embedding of place and gender in disaster contexts plays a crucial role in the ways in which hazard events are experienced by individuals. Changes in personal and social relations in disasters can lead to shifts in meanings attached to disaster affected localities that have the potential to impact well-being. Human Geography offers disaster research an understanding of the complex role of place in constructing post-disaster identities. This paper adds to the literature on gender, disaster and place (Akerkar

& Fordham, 2017; Gaillard et al., 2017b; McKinnon et al., 2017; Tyler & Fairbrother, 2013a) by examining how complex relationships between masculine identities and men's sense of place shape personal accounts of response and recovery.

### **Theoretical Framings**

Bourdieu's (1984) concepts of field, capital, *habitus* and doxa are drawn upon to examine men's sense of place in the aftermath of the Kaikōura/Waiiau earthquake. Field is central to Bourdieu's conceptualisation of capital, *habitus* and doxa as it operates like a board on which the game is played (Hillier, 2005). Social relations interact, and social practices are enacted within the realm and respectabilities of a given field. The field also acts as a social space of hierarchy where individuals are positioned in relation to each other. *Habitus* is shaped by the field, yet *habitus* also shapes the field. The *habitus* is the social structuring of ingrained practices, skills and dispositions that 'play out' within a particular field (Bourdieu, 1990b). Actors use social, cultural, economic and symbolic capital to situate themselves as well as others within the same field. Social capital is the social networks and relationships to which individuals have access such as family, friends and communities. Symbolic capital circulates throughout the field and into practices which are considered honourable and prestigious. Economic capital refers to the financial assets, which a person acquires and employs within the social field. Cultural capital is the accumulation of social assets and cultural knowledge which individuals use to position themselves within the field (Bourdieu, 1986). There are three forms of cultural capital: objectified, institutionalised and embodied. Objectified capital refers to recognised status symbols that individuals may possess such as artworks, cars and houses. Quantifiable and legitimised positions, statuses and qualifications attribute to institutionalised capital. The last form of cultural capital is the embodied state. Social agents unconsciously internalise contextually appropriate embodied behaviours that may relate to age, gender and social class, which in turn constructs identity in relation to the field. Possessing recognised, and/or legitimised forms of cultural capital that encompasses specific knowledge, assets and dispositions, enable individuals to be respected within their milieu, thereby increasing their position within the field.

Geographic enquiry has drawn on Bourdieu's work to examine social relations and environments (Hillier & Rooksby, 2005; James, 2009). However, significant engagement with Bourdieu's social theory in the geography (Bridge, 2011) and disaster literature has been rare. Hillier and Rooksby (2005) explain the link between sense of place and *habitus* as "a sense of one's place and role in the world of one's lived environment...[it] is an embodied, as well as a cognitive, sense of place" (p. 21). Drawing on *habitus* to understand sense of place provides place with a framework by which the day-to-day lives of actors can be examined. The application of Bourdieu's social theory in Geography, may be extended through analysing field as a geographical metaphor for place. Field is a socially structured space in which capital, *habitus* and doxa are at play within a given context. Doxa refers to the unconscious and self-evident beliefs and actions of the *habitus* within a particular locale. Doxa can bind field and place together through the taken-for-granted

practices of everyday life. Therefore, place and field share a concern with how experience and interaction shape, and are shaped by, contested economic, cultural, political and social processes (Bourdieu, 1977; Massey, 1994). Bourdieu's theories offer a perspective on the taken-for-granted and assumed elements of social practice enabling a tracing of the social milieu through which individuals comprehend reality. Engaging with doxa, field, *habitus* and capital, can extend understandings of the nuances of people's realities that construct personal meanings of place in disaster.

### **Masculinity, Identity and Place**

There is a considerable literature on masculinity, identity and place which can support detailed understandings of rural men's identities in disasters. Masculinities are constructed in relation to other social categories, such as age, sexuality and ethnicity (Gorman-Murray & Hopkins, 2014), as Hopkins and Nobel (2009) argue, identities not only play out in spaces and places, but space and place support the construction of subjectivities. This section discusses how culture and landscape contribute to the crafting of masculine identities within rural New Zealand.

The kiwi bloke is a stereotypical pākehā image of hegemonic masculinity in New Zealand that embodies manual labour, strength and appreciation of the land (Phillips, 1987). Kiwi blokes are "diamond[s] in the rough, hard-working and manly" (Keppel, 2014, p. 237) men who are encouraged to suppress emotions (Keppel, 2014). Early European colonisation in New Zealand led to dispossession of land belonging to Māori (Petrie, 2015) in order to accommodate a growing agricultural workforce consisting of largely European men (Phillips, 1987). Due to this colonial history of migration, the contemporary 'Southern Man' trope references predominately rural English, Scottish and Irish settlers that brought particular notions of masculinity with them (Phillips, 1987).

## The Southern Man

# HOW TO BE A SOUTHERN MAN

Here it is mate. All you'll ever need to know about Drinking, Dressing, Talking, Driving and thinking Southern Man style.

**A SOUTHERN MAN ALWAYS:**

- Uses his left hand to drink with, leaving his right hand free to prod the chest of anyone who disagrees with his rugby theories, of which he has an abundance.
- Drinks a ute (a similar nononsense wagon) – it has the space for a few kegs of Speights when the boys come over to watch footy. They're also perfect for hunting and fishing trips or the odd excursion north to support the local team.
- Wears his Speights jersey with pride whenever he can, especially at his local rugby club or pub.

**A SOUTHERN MAN NEVER:**

- Eats quiche or beanburgers, uses cellphones or drinks beer out of a stemmed glass.
- He wouldn't be seen dead in a Karaoke Bar and never wears boat shoes (except on a boat).
- Holds hands with his women in public, nor side scooters or mopeds.

**FOOD – THE SOUTHERN MAN PREFERS:**

- A barbecue at the back of the flat with the boys killing a few kegs over a cold Speights.
- Good curries; the hotter the better, as well as raw Bluff oysters, whitebait and good meat pies.
- Wild pork on the spit, venison sausages and whole bread, glaze sauce and roasts, are all his favourites.
- Not to patronise restaurants that don't serve jags.
- Muttonbird stew.

**ANIMALS – THE SOUTHERN MAN WON'T TOLERATE:**

- Any animal you can't ride, throw a rope on or muster sheep with.

**THE SOUTHERN MAN RESPECTS:**

- Women who drink Speights out of a jug.
- Laurie Mains.

**HOLIDAYS – WHILE ON HOLIDAY THE SOUTHERN MAN...**

- Only goes where he can get Speights.
- Is disturbed about the trend where Speights is becoming available in more Northern provinces (it has no excuse when pressured by his wife to travel out of the South).
- Doesn't allow his wife to drive unless he's had a few.
- Looks forward to getting back to his favourite bar.

**SPORT – THE SOUTHERN MAN...**

- Plays any contact sport where there is risk to life or limb.
- Watches and talks rugby even during the cricket season.
- Refers to rugby (from the terraces at Carisbrook).
- Doesn't switch on the cricket until Iain Rutherford is batting.
- Only travels to Auckland for test matches and then only if he can drink Speights.
- Enjoys John Hart and Richard Lee jokes and is convinced that it's only a coincidence that so many of the present All Blacks team are current or former Otago players.
- Always questions any Aucklanders selected in a national team and remembers Gicz Wylie's and Laurie Mains' birthdays.
- Thinks basketball is the name for netball when men play it.

**CLOTHES – THE SOUTHERN MAN...**

- Prefers practical clothing eg Swansons, Levi jeans, rugby jerseys and shirts with padded elbows for herring on his favourite bar.
- Unlike Aucklanders, he doesn't own more than two ties (preference rugby casuals) and he wouldn't be seen dead in a slinky or corigan.
- Doesn't wear cheer chains, rings or ear studs.

**THE LINGO**

- "Scarfer" – University student
- "One for the road" – Two for the road
- "McGinn" – Beer pot
- "Sip" – 5 jugs
- "Big sip" – in excess of 8 jugs
- "Speights Head Beer" – Speights Gold Medal Ale
- "A wee bit nippy" – 4 degree frost

**IN GENERAL – SOUTHERN MEN:**

- Never sit down in public bars.
- Never ask to see the wine list.
- Will never leave beer in his glass.
- Are respected wherever they go, for their taste in clothes, their taste in sport, and of course their taste in beer.

**SPEIGHTS**  
Pride of the South  
GOLD MEDAL ALE

Figure 5: How to be a Southern Man.  
Image: Te Ara The Encyclopedia of New Zealand, (2008).

The Speights Brewing Company advertisement in Figure 5, how to be A Southern Man is a guide on heterosexual, rural, South Island masculinity that encourages 'authentic' no-nonsense behaviour such as control and risk taking (Cloke, 2005; Gee & Jackson, 2012; Law, 1997), whilst opposing seemingly feminine actions like expressing emotion through holding hands in public. The campaign presents the environment as a site of masculine performance that supports a particular gender identity (Law, 1997). The Southern Man is a privileged form of masculinity that excludes Māori and other masculine identities while objectifying women and demeaning gay men (Gee & Jackson, 2012). Whilst the Southern Man persona is humorously presented through satire in the Speights advertisements (Cloke, 2005; Liepins, 2000), it still holds value (Gee & Jackson, 2012) as men are encouraged to compare themselves to this ideal. In contrasting themselves with other people and places, men are actively engaged in establishing their identity and sense of place (Rose, 1995), through attachment to specific forms of masculine symbolic and cultural capital.

Coles (2008, 2009) extends the notion of masculinity by highlighting similarities with the concept of field. He argues that masculinities encompass negotiations and practices which position and challenge those within a social field. Individuals may strategically conform to the *habitus* and employ capital to further position themselves within the field of masculinity (Coles, 2009). However, some masculinities may be marginalised within the field due to a lack of capital or alignment with the dominant *habitus* which typically embodies sets of understanding about hegemonic masculinity (Coles, 2008). Linking hegemonic masculinity with Bourdieu's concept of field further extends understanding of the Southern Man trope.

### **The Earthquake and Research Methodology**

During the night of November 14<sup>th</sup>, 2016, New Zealand experienced a 7.8 magnitude earthquake and tsunami with shaking lasting almost two minutes (GeoNet, 2016). People in low-lying coastal areas evacuated in fear of a tsunami. Although damage occurred throughout New Zealand, the Marlborough and North Canterbury regions in the South Island were the most severely impacted. Therefore, for the purpose of this research, Marlborough and North Canterbury were chosen as study areas. The landscape of both regions is rural, with farms, lifestyles blocks<sup>18</sup>, several larger towns including Blenheim and Kaikōura, and smaller towns such as Seddon, Culverden, Ward and Waiau.

Qualitative, semi-structured interviews were adopted for this study. This form of interviewing fosters in-depth exploration of people's stories and experiences (Tolich & Davidson, 1999), is appropriate for conducting sensitive research and provides participants with opportunities to talk about difficult experiences in safe environments (Liamputtong, 2007). Dialogical interviewing (Frank, 2005) was used to gather participant's narratives. This approach disrupts power differentials between researcher and participants (Sonn & Green, 2006) through providing flexibility in questioning. Participants are also enabled to direct their interviews through speaking about, and reflecting upon (Tolich & Davidson, 1999) their earthquake stories.

Interviewing took place from November 2018 to July 2019. The eligibility criteria included men aged 18 and over who resided in Marlborough or North Canterbury and who experienced the Kaikōura/Waiiau earthquake. Recruitment for participants was conducted through social media, personal networks, posters, local newspapers and community newsletters. Nineteen men participated in the study, one man was Māori, one was British, and 17 men were New Zealand born pākehā. The ages of participants ranged between 35–75 years. All men were cisgender, and one participant identified as a gay man. Interview questions focused on participants' experience of the earthquake and its aftermath. Topics discussed included: personal impacts of the earthquake, their family and the wider community, preparedness, individual and community strengths, skills and resources drawn upon post-disaster, coping mechanisms, challenges and gender differences in responses to the earthquake. Interview transcripts were audio-recorded, transcribed verbatim and manually coded into themes (Braun & Clarke, 2006). This paper presents a discussion of themes identified in participant's talk, which related to how a sense of place as well as sets of understandings about rural capabilities and masculine identities, shaped men's disaster narratives of, and actions in the aftermath of the Kaikōura/Waiiau earthquake.

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18 Small rural properties.

## Results and Discussion

A strong sense of place was identified in participants' stories about the Kaikōura/Waiiau earthquake. In this section, four themes that collectively illustrate the topic *sense of place* are discussed including: men's *sense of community*, men's *place-based identities*, the ways in which 'outsiders' were identified through talk about *us and them* and the role of *landscape*, which explores how participant's sense of place was altered by changes in the post-disaster environment.

### A Sense of Community

The role of the community can be instrumental in preparing, responding and facilitating well-being in disaster spaces (Cloke & Dickinson, 2019; Cox & Perry, 2011; Silver & Grek-Martin, 2015). Men gain support through community cohesion, which enables recovery (Akerkar & Fordham, 2017). It is therefore worthwhile discussing the notion of community in earthquake affected rural localities. Following the Kaikōura/Waiiau earthquake not everyone evacuated. Below Oliver and Lewis talk about the reasons why they decided to shelter in place, and their thoughts about those who evacuated.

They ran when it was tough, when it was a bit scary...they didn't get to see the way the community got it together, the gifts, the food, the marae<sup>19</sup>...sports days, having BBQs... people were able to rub shoulders and tell stories and I think they missed out on that... They ran away in fear, came back and not having that cool stuff in the middle (Oliver, 45-54; Pākehā).

Some people...just wanted to get out of town. Like a flee response and that really surprised me...it never occurred to us that we would leave (Lewis, 45-54; Pākehā).

A strong sense of place is noticeable in Oliver and Lewis's narratives when talking about evacuating. Staying with their community after the earthquake was described as being "scary" and "tough," which implies evacuating is a sign of weakness while staying was a sign of strength. Such findings reflect insights presented by Tyler and Fairbrother (2013a) who state that ideas aligning evacuation with fragility, shaped men's decisions to stay instead of evacuating during Australian bushfires. Bourdieu's insights on behaviour further assists in examining these gendered perceptions in detail. Lewis for example, could not understand why people wanted to leave, which suggests a *habitus*, that is underpinned by a sense of place (Hillier & Rooksby, 2005), community cohesion and durability in challenging circumstances. Oliver identifies a sense of enjoyment in the community coming together, stating it was "cool" and that staying within the community was more beneficial than leaving. These findings support geography work that

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19 Marae are spaces of significance to Māori, that reflect community places and/or meeting houses that "embody the relationships between people, between people and their wider ancestral landscape, and between people and those who have gone before them" (Kawharu, 2010, p. 228). Marae are physical structures and metaphysical spaces that constitute physical and spiritual sense of belonging for Māori (King et al., 2018, p. 1196).

demonstrate the interrelations between sense of community and disaster recovery (Block et al., 2019). In effect, communities provide support and stability which occurs in locales with a strong attachment to place (Silver & Grek-Martin, 2015).

Patrick helped with evacuation, checking on members in his community and assisted with house repairs. He discussed his frustration with one particular man who evacuated, saying: “you’re ditching the town, you’re physically able of doing something and you’re just taking a free ride out of here.” In this instance, Patrick associates evacuation with abandonment and a lack of commitment to the community. His anger at a demanding abled bodied man who evacuated implies that Patrick’s values are shaped by a local rural *habitus* (Bourdieu, 1977) that reflects the Southern Man trope of independence, endurance and action (Gee & Jackson, 2012; Keppel, 2014). Oliver, Lewis and Patrick narratives align with expectations that men stay and help in times of crisis, as such, evacuating goes against their understanding of community as well as their relationship to place. In this instance, sense of place encompasses positivity and resilience which supports the notion that existing attachments to place and community can be enhanced through collective upheaval and trauma (Cox & Holmes, 2000; Silver & Grek-Martin, 2015).

Oliver’s talk of community cohesion and collectiveness is further highlighted by William who makes a comparison between distinct rural and urban social fields.

A small community like this, everybody pitches in and helps...It’s not like a big city where you’ll only get a certain few that will help, and the rest will sit back...So, we all know of each other in the town...Like friends down the road...he even invited people in...The same as what I did...bringing people in, making them feel better (William 55-64; Pākehā).

William’s comparison to cities, infers that urban communities are passive while rural communities are active, an attribute regarded as masculine and therefore valued (Berg, 1994). William states that residents in Kaikōura know each other and points to this as a key reason why people help. Inviting people into their homes suggests a *habitus* and sense of place (Hillier & Rooksby, 2005) within the rural social field and an associated doxa in which ‘unwritten’ social and cultural rules related to supporting each other govern behaviour and action (Bourdieu, 1989). William and his friend recognised that some people within their neighbourhood needed reassurance therefore the men opened their homes as support spaces.

Cretney and Bond (2017) note that the ways that individuals identify with place, inform and in some instances, strengthen disaster response and recovery. People draw on social, political and historic features to visualise place and their connections to it (Cloke & Dickinson, 2019; Cretney & Bond, 2017). The narratives presented, highlight how men strongly identified with place (Cretney & Bond, 2017), and imagined a collaborative community that also became their strategy for coping (Akerkar & Fordham, 2017). Thus, place imaginaries, overtly shaped men’s sense of responsibility to support local response and recovery efforts which also aided their personal recovery.

## An Invasion of Place

Spatial conflict and challenges over the acknowledgement of local insight was a recurring theme across the interview material. How masculinity is performative and continually contested is explored in this section. Roads and bridges were damaged throughout Marlborough and North Canterbury resulting in an influx of road workers amongst other personnel from towns and cities across New Zealand. An alliance was formed between the New Zealand Transport Agency and Kiwi Rail named the North Canterbury Transport Infrastructure Recovery Alliance (NCTIR) in order to restore earthquake damaged roads and rail. The notable influx of NCTIR workers was in Kaikōura due to the national highway passing through Kaikōura being significantly damaged and blocked by land slips. Oliver witnessed a division between the local population and NCTIR personnel. The following narrative highlight tensions and challenges between the two groups.

Oliver: ...you know fights, punches and it still goes on, but it was because, yeah really because of that 'us vs them' stuff. At one point one of the pubs said "no orange jackets allowed"...because it was identifying who the workers were.

Ashleigh: Why do you think there was an 'us vs them?'

Oliver: Just because of the unknown. They look different and they're employed in our town therefore someone might be missing out on a job. They might chat up our women, drinking our beer, they're in our favourite stool at the bar...They're taking up the car park...Things changed, and they were on good money and it was just numbers...they were just everywhere. And people weren't coping...all these other stresses but then it's "who's this?" "Who do you think you are?"...We've grown up as a community without having someone else in our. You know (Oliver, 45-54; Pākehā).

When values associated within a given field are threatened, people's sense of place may be disrupted, resulting in tensions (Buttimer, 1980a). The field is a social space in which actors challenge and compete for capital and positions of power (Bourdieu, 1990b; Coles, 2009). Oliver's narrative reflects how power relations in Kaikōura reflect social and spatial boundaries which define 'insiders and outsiders' in the construction of place (McDowell, 1999). Alston (2017) also identified in Australia, that men felt pushed out within their communities when military personnel were contracted to take over the bushfire clean-up, thereby debilitating local men's coping abilities. It is evident that people living in Kaikōura have a strong sense of identity and place and felt threatened when strangers began living and working within their community. Conflicts between men highlight how the *habitus* shapes gendered behaviours and dispositions where men use embodied capital valued within the field of masculinity, in this case their physical prowess, to exert and defend their position within place (Coles, 2009).



The use and repetition of the word 'our' signals a strong sense of belonging and ownership of space, items and women, which was disrupted by NCTIR workers using resources and forming relationships with women in the town. The construction of a heterosexual Southern Man trope is at play within the field of masculinity and the geographical field of Kaikōura. Given that masculinity is dependent on performance, it is not surprising that some men in Kaikōura felt threatened when large numbers of strangers moved into the town, shifting the 'rules' in place. The pubs, as masculine spaces became sites of conflict between the local men and NCTIR workers resulting in one pub barring orange jackets in an attempt to reduce conflict. Use of space here represents a place of belonging and the construction of a metaphorical boundary between 'us' and 'them.'

Men are defined by their paid work (McDowell, 2005), a form of valued economic and symbolic capital (Coles, 2008) that is shaped by a *habitus* that encourages men to be providers. Masculinities and local men's positions within Kaikōura were challenged and contested by the newcomers. Power relations, hierarchical struggles of masculinity and forms of economic, embodied and institutionalised capital are evidenced in Oliver's narrative articulated through the recognised advantages of the 'outsiders.' Masculine forms of rural cultural capital, related to employment as well as established positions in the local field, were threatened by the elevated social status of the 'outsiders' and their perceived capacity to take valued assets from Kaikōura men. Disruption to the status quo aligns with the idea that masculinities are contested fields indicated where different fields overlap. In this example, the external field of construction extended into the local region of Kaikōura, thereby limiting access to new and valued forms of capital to those with pre-existing geographical ties to place. An argument can be advanced that the contracted NCTIR workers, who were predominately from cities, did not embody the same long-term commitment to community and sense of place, which resulted in some Kaikōura men excluding them.

An invisible boundary was created to distinguish between 'them' and 'us.' The narratives discussed suggest disruption was not only caused by the earthquake, but also by the NCTIR workers temporarily residing in Kaikōura. The change in town dynamics aligns with the concept of *doxa*, whereby individuals have an unquestioned belief that only people permanently residing in the place of Kaikōura belong. People's ideas of what sense of place was to them did not include large numbers of people unknown to locals residing for long periods in the town. There were also shifts in place and use of spaces which contributed to (re)defining a sense of place.

Following the earthquake, Civil Defence mobilised and responded to earthquake affected areas. Below, Carl discusses conflict between locals and Civil Defence.

The response of everyone that I saw in our area was just amazing...And then it started to turn a bit shit and you get Civil Defence from outside and they make the decision "oh no you can't go up and down the road"...They need to listen to the local people. And that to be honest...caused more stress to people up here...someone had made a decision in Wellington and caused so much stress (Carl, 45-54; Pākehā).

Carl's experience with Civil Defence further demonstrates how challenges and tensions occur when fields overlap. Carl's knowledge of the local landscape is situated within the place of rural Canterbury. Following the earthquake, he drove to other communities to collect and distribute supplies and offer help where needed. When Civil Defence closed a main road, he became frustrated as his community became even more isolated. Carl felt his knowledge of the roads was subordinated to Civil Defence's policies and procedures, demonstrating how institutionalised and objectified forms of capital govern and hold authority and power. Carl's story highlights struggle within, as well as overlaps with, the masculinity and emergency response fields. Carl indicates that he struggled to have his local cultural and symbolic (Southern Man) capital recognised by those whose positions within the field were legitimated through forms of institutionalised capital originating in Wellington. In Carl's view, authorities and "Wellington" (government) caused unnecessary, additional stress, so he became resentful of forms of institutional authority that he associated with the city.

Carl considered his community worked well together and therefore felt that they did not need outside help. Earlier in his interview he stated: "we think for ourselves and just get out and do it...common with rural men because you're more of a problem solver..you just naturally do it." Carl's discussion illustrates the concept of doxa as he perceives self-reliance to be a natural trait, thereby legitimising the notion of men "just get[ting] out and do[ing] it" as a form of gendered embodied and symbolic capital (Bourdieu, 1989) within rural Canterbury. His narrative also illustrates how ingrained dispositions of self-assurance within place, as well as connections to the outdoors and physically demanding work, echoing the Southern Man trope, shape men's responses to disaster.

Carl and Oliver's narratives illustrate how local masculinity underpinned the earthquake response behaviours of men in their community. Massey and Jess (1995) argue that when people claim a specific space, they continually (re)construct and imagine the space as a place that captures who they are and what they want to gain from place. It is therefore not surprising that, following the earthquake, conflicts and challenges occurred between locals and non-locals, given that some residents did not want outside help. They also did not welcome changes in community dynamics and in the use of space precipitated by the 'outsiders.'

### **Identities in Place**

An examination of place-based identities can trace how people respond to disasters. This section discusses how post-earthquake behaviours and attitudes such as hard work, helping others and being independent were valued forms of rural masculinity. As an exemplar, Patrick was involved in visiting damaged properties and assessing residents' needs. Below he talks about one particular farmer.

There were some real stoic people. I remember going...out on the farms and going to see this old guy and his house was just fucked. And they were just camping outside...I said, "this guy won't want any help" and his house was off its foundations, holes in the walls and they're sitting around a fire outside. "Can we do anything?" "Oh no we're alright there's plenty worse off than us, don't worry about us." And he's been living in that till just recently [2.5 years post-earthquake]. Didn't want or didn't need any help, wouldn't ask anyone for help (Patrick, 35-44; Pākehā).

Patrick knew the farmer would not want assistance, signalling his awareness of the particular form of 'real stoic' rural masculinity operating within the field of his hometown. Patrick's narrative illustrates how *habitus* is recognised and legitimised by those with a shared culture and sense of place. Emphasis is also given to ways in which identities are constructed in relation to place (Hopkins & Nobel, 2009). Other participants shared similar stories of men not wanting or asking for help. Carl, for example, stated: "us rural people, we never ask for any help, we're stoic individuals, we can do it all ourselves." Patrick and Carl's narratives represent a distinctly pākehā Southern Man trope that is located within time and place and shaped by the *habitus*, through valued dispositions like stoicism and rugged individualism as well as forms of embodied capital such as practical action, strength and endurance. Dale also recognised how particular masculine identities shaped people's responses to the earthquake. Below he discusses common perceptions about stereotypical 'types' of men.

One thing that did strike me is that all these men...older guys, you know these big fellas, you see the stereotype guys...and you'd see that they were just crushed. I've spoken about this with other guys and we basically came to the conclusion that you know, the likes of us you weep for others, you've had your arse kicked a few times and you know how to handle it, but some of these big guys they've been in control...all of a sudden, their control is not there, and they can't do a thing about it. They probably struggled and done it harder than a lot (Dale, 35-44; Pākehā).

Dale makes reference to a stereotypical idea of hegemonic masculinity that is reminiscent of the Southern Man trope where suppressing emotion is respected. He implies that these men struggled because outward displays of emotion do not conform to a local *habitus* that encourages control as a form of embodied and symbolic capital. A connection is made between the age and physical size of men and an expectation of emotional control. Recognising changes in the state of mind of some men demonstrates that when behaviours and actions are unexpected, and go against the *habitus*, they stand out, highlighting vulnerabilities. Dale's narrative also illustrates how cultural capital is dependent on collective understanding and appreciation within a social setting thereby legitimising particular masculine attributes within place. He also positions himself in relation to what he describes as stereotypically stoic, older, bigger men, by

aligning himself with a subordinate younger, softer form of masculinity. A generational shift in the *habitus* within the field of rural masculinity is implied, with younger men able, and having social permission, to express emotion. Dale's narrative illustrates how the *habitus* influences which competencies are valued, in this case suppressing emotion becomes a form of historical cultural capital that is associated with a particular place and time.

Further examples of cultural capital following the earthquake are represented in Carl's account of particular strengths related to practical skills and pragmatic ways of thinking that he witnessed in his community.

Gerry couldn't sit round...he said "right, I'm going to get on the grader and I'm going to grade the road" because it was a shambles. He just done a lot of grading and filled the holes in, and his strengths were really practical...weren't asked they just done it and it's that common sense practical ability that Gerry had. Sid he's another one...trying to get water going...eventually by day five or six, we ended up getting water (Carl, 45-54; Pākehā).

Sets of understandings about the body as a valued resource are central to the field of masculinity (Coles, 2009). Carl values Gerry and Sid's knowledge and skills for fixing things without needing to be asked or directed. These particular skills are acquired through a rural, Southern Man *habitus*, in which physicality and being practical are valued forms of embodied, cultural capital within North Canterbury. Both men utilised objectified capital such as equipment and tools to benefit and support the wider community, demonstrating how valued skills and competencies inform the *habitus* (Bourdieu, 1977) that shape rural masculine identities in New Zealand. The three men's attachment to place is indicated through actions to initiate recovery within the home locale. The narratives in this section highlight how the *habitus* and access to forms of capital shape men's sense of community and masculine identity and by extension, their sense of place.

### **The Place of Landscape**

Earthquakes cause damage to the natural and built environment that can permanently alter the landscape. There was significant coastal uplift which revealed part of the seabed along the East Coast of the South Island (GeoNet, 2016). Participants commented upon having new fault lines running through their properties (Edward), their house being uplifted by seven metres (Dale) and moving north seven centimetres (Gary). It was clear whilst driving around North Canterbury and Marlborough, that the natural environment had undergone enormous stress. Block et al. (2019) remind us that it is important to acknowledge how changes to the natural environment can affect people who reside within those landscapes.

Māori have an intricate relationship with, and respect for the land (Harmsworth & Awatere, 2013). The Māori term *tangata whenua* translates as *people of the land* (Mead, 2016), whereby for Māori sense of place draws from landmarks, sites of cultural significance (Waiti & Awatere, 2019) as well as continual occupation over generations. Tohorā is Māori and within his stories of the Canterbury and Kaikōura/Waiiau earthquakes, it was evident that the land changes were a fundamental part of his earthquake experience.

The biggest shock was going home...I took a helicopter up and I was absolutely stunned at the difference at the coastline and the damage that had been done to the land...It hurt. It hurt seeing the changes. I've grown up on that coastline (Tohorā, 65-74; Māori).

In stating he had grown up on that coastline Tohorā is subtly referring to his sense of place within the coastal landscape which for Māori is facilitated by history, whakapapa (genealogy) and wairuatanga (spirituality) (Waiti & Awatere, 2019). Witnessing the changes to his home hurt as if the earthquake had caused pain to his body, which identifies how Tohorā's sense of place is embedded in his whakapapa (genealogical connection) to Papatūānuku,<sup>20</sup> the earth Mother (Buck, 1949). Expressing emotion aligns Tohorā with traditional Māori values rather than the stoic Southern Man image which typically reflects the lives and interests of pākehā men and tends to exclude Māori (Gee & Jackson, 2012).

Comments made by some participants drew on differences between the 2010-2011 Canterbury and the Kaikōura/Waiiau earthquakes. Participants made comparisons which reflected images of earthquake destruction. To highlight this point, George narrates how he felt the damage to infrastructure and the land did not justify nor sufficiently explain the trauma people experienced.

With the Christchurch quake, or with most quakes of that magnitude around the globe, you have a visual demonstration of what took place inside [yourself] by the shattered landscape in which you lived...To see that there was no validation to say I feel absolutely terrible or to cry in public because there was no scene like Christchurch. You had a demolished city, you had people stuck in rubble the whole thing that wasn't here...there was no confirmation of what you felt like inside [on the] outside (George 45-54; Pākehā).

George talks about a lack of visual evidence that reflected the stress and anguish that he felt during and in the aftermath of the earthquake. His sense of place had shifted through experiencing a traumatic event. George felt deceived by the absence of local images commonly associated with earthquakes such as collapsed buildings and fault ruptures scarring the landscape. George fears that publicly crying, which signifies a loss of control over emotions due to difficult circumstances, may be interpreted as an overreaction that was not supported by the low death toll, localised minor damage to buildings and a relatively unchanged environment. In this narrative, there is a clear disconnect between the body and mind with that of common earthquake imagery and discourses.

In contrast to George, Carl witnessed changes to the land yet acknowledges and appreciates how earthquakes contribute to New Zealand's unique landscape. In the following extract, he expresses his admiration for the New Zealand terrain.

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20 Māori understand Papatūānuku to have given birth to life. She is therefore an ancestor of all life on earth (Buck, 1949).

This is how New Zealand has been formed...Certainly, this inland Kaikōura range is still growing, so it's still being pushed up and that's part of why we've got this spectacular scenery and I think that's part of living in New Zealand that you get over it. At least we don't have Aussie snakes or crocodiles...If this is all we've got to worry about it's not much and if it happens every 300 years [laughs], you know, we can't complain. I wouldn't trade this country of ours for anything (Carl, 45-54; Pākehā).

Carl's narrative supports work by Cox and Holmes (2000) that indicated links between people's relationship with the built and natural landscape and their decisions to stay in high-risk environments. Carl for example, accepts the risk of living in a seismic region of New Zealand and acknowledges the benefits such as access to "spectacular scenery." He emphasises the positives whilst minimising the negatives of rare earthquake events by making comparisons to Australia's daily threat of wildlife. Carl's attachment to place is also reinforced by stating he would not trade places with any other country. In using the word "ours," he further signifies his sense of belonging in, and connection to, New Zealand. His narrative relating to the whole of New Zealand and not just one specific region aligns with Massey's (1994) concept of place whereby sense of place expands beyond a small geographic field. It also supports previous research that has noted the Southern Man's relationships with, and appreciation for, the land (Law, 1997).

## **Conclusion**

This paper offers a perspective on masculine identities in the emerging field of men and disaster. The research supports Rose's (1995) argument that sense of place is not only bounded by personal meaning and feelings, but rather "such feelings and meanings are shaped in part by the social, cultural and economic circumstances in which individuals find themselves" (p. 89). Through engaging with the geography literature, this research demonstrated how shifting dynamics in men's sense of place in disasters can impact response and recovery. Knowledge about the role of place in post-disaster spaces (Akerkar & Fordham, 2017; Block et al., 2019; Cretney & Bond, 2017) was expanded by interrogating the relationship between masculinities, locale, response and recovery. Earlier understandings of place in disaster contexts (Chamlee-Wright & Storr, 2009; Cloke & Dickinson, 2019; Cretney & Bond, 2017; Silver & Grek-Martin, 2015) were supported by evidence that participants had a strong sense of place and a strengthened sense of community through renewed appreciation of shared goals and values (Block et al., 2019; Cox & Perry, 2011). Adopting field as a geographical metaphor for place extends the literature on gendered experiences of disaster through highlighting the intricate relationship between men and place and identifying how masculine identities contribute towards men's disaster experiences. Drawing on Bourdieusian concepts of field, *habitus*, capital and doxa enables understandings of men and disaster to be extended through capturing the dynamic and shifting social and environmental landscapes that construct how men navigate novel situations, including natural hazard events. Masculine identities were embedded within participants' stories of the Kaikōura/Waiiau earthquake, as men relied upon rural masculine values and skills to support response and recovery for themselves and the wider community.

The qualitative accounts of the Kaikōura/Waiiau earthquake offer a unique local perspective on men's gendered experiences of disaster. Combining field, *habitus*, capital and doxa with geographical understandings about sense of place and the masculinities literature offers insights into rural men's experiences of the Kaikōura/Waiiau earthquake. Lessons learned from analysing sense of place in disasters through the lens of gender includes acknowledging social and cultural impacts as well as understanding the complex and often concealed behaviours, practices and demeanours of those affected by disruption, trauma and stress, precipitated by natural hazard events. Within this context, further integration of the gendered meanings of disasters, in disaster policy and practice is warranted. Specifically, an argument can be extended that attention should be paid to the ways in which masculine identities, embedded in place, govern men's disaster risks, responses and recovery trajectories.

# 5

## Rural Men's Emotional Geographies of the Kaikōura/Waiau Earthquake

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*"One of the criticisms I've faced over the years is that I'm not aggressive enough or assertive enough or maybe somehow, because I'm empathetic, it means I'm weak. I totally rebel against that. I refuse to believe that you cannot be both compassionate and strong"*

*Jacinda Ardern, Prime Minister of Aotearoa, New Zealand.*

The previous chapter examined the role of place and hegemonic masculinity in rural men's experiences of the Kaikōura/Waiau earthquake. The research article offered in this chapter includes an analysis of emotions identified within participants' interview transcripts and considers the relationship between emotion and hegemonic masculinity. The discussion within the chapter follows on from Chapter Four, which scrutinised forms of hegemonic masculinity, and valued attributes of masculine behaviours and actions, that underpinned rural men's disaster realities. Akin to Chapter Four, Bourdieusian theory is utilised to analyse expressions of emotions in the aftermath of the Kaikōura/Waiau earthquake. Explicitly the theoretical framings of *habitus* and bodily hexis are employed to capture the socialisation of ingrained dispositions that are articulated through bodily behaviours and expressions. Ideas of *habitus*, bodily hexis and hegemonic masculinity are woven together to describe the role of place in how rural men experience emotion in disasters. The manuscript presented within this chapter was submitted to the Journal *Gender, Place and Culture* in December 2019, and was published in February 2021. The chapter is published as:

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## “She’ll be Right”: The Place of Gendered Emotions in Disasters

### Abstract

This paper draws on the geographies of emotion and literature on masculinities to explore men’s experiences of the 2016 Kaikōura/Waiiau earthquake in Aotearoa, New Zealand. Qualitative semi-structured interviews were conducted with 19 men affected by the earthquake. Geographies of emotion enable reflection on the social context and individual circumstances of those impacted by natural hazard events, thereby contributing to understanding the ways local constructions of gender can influence people’s experiences of disasters. The paper highlights how emotions are present regardless of how antipodean notions of hegemonic masculinity, reflecting stoicism and independence, shape individual disaster responses and recovery. The research identified that two years on from the earthquake, men still experienced emotion when talking about the earthquake, yet attempted to silence their distress. Through an analysis of emotions, men’s hidden vulnerabilities and capacities, which are linked to sets of understandings about masculinities embedded in place, are captured. This research further demonstrates the value of undertaking analysis of men’s emotions in spaces of disaster.

**Key words:** Gender, disasters, masculinity, emotion, geographies

### Introduction

This paper engages with emotional geographies through which rural men’s gendered experiences of the 2016 Kaikōura/Waiiau earthquake are explored. Disaster research predominately employs methodologies characterised as objective and rational, associated with science and masculinity (Adams-Hutcheson, 2018), whilst personal and subjective stories are marginalised. Given the global increase in mental health disorders and incidence of male suicide (Cleary, 2012; WHO, 2014), which are exacerbated post-disaster (Krug et al., 1998), further research is needed to examine the emotions in men’s personal disaster accounts.

Feminist geographies are drawn on to extend thinking on the socio-spatial contexts in which disasters and the expression of emotions are situated. This paper brings together geographies of emotion, masculinity and disasters to add to the developing literature on men and disasters, in relation to the emotional and physical effects of disasters on the body. Through examining emotion in the thematic areas of *silences*, *emotional work* and *temporality*, an argument is advanced that sets of understandings from the geographies of emotion literature extend knowledges on how men’s lived realities are impacted by natural hazard events. In this paper, notions of masculinities and Bourdieu’s concepts of *habitus* and bodily hexis inform an examination of rural men’s emotional responses to, and recovery following the Kaikōura/Waiiau earthquake. The research is informed by a feminist, social constructionist approach whereby emotions and gender are considered to be socially shaped and understood in relation to and between place(s).

## **Emotional Geographies**

Geographies of emotion grew from challenging masculinist objective and rational productions of knowing (Anderson & Smith, 2001; Bondi, 2005a; Rose, 1993; Sharp, 2009; Smith et al., 2009). Feminist geographers argued for the inclusion of emotions within research analyses to facilitate an exploration of the subjective dimensions of knowing (Anderson & Smith, 2001; Bondi, 2005a; Rose, 1993; Sharp, 2009). Examining narratives that capture people's experience of, and response to place and space was advocated (Bondi, 2005a; Rose, 1993), including incorporating the private sphere. Inquiry into emotions, provides opportunities to understand people's experiences, and the subjective constructions of events (Smith et al., 2009; Thien, 2005).

Simonsen (2007) presents emotions as "something practised and...connected to the expressive and communicative body (p. 176). Emotions "provide an important connection between the psyche and subjectivity of the individual...and the wider social" (Pease, 2012, p. 127) world. Moreover, the body is a space of experiences, struggles and identity politics (Gorman-Murray, 2013; Valentine, 2013). Thien and Del Casino (2012), for instance, talk about conflicting ideas between health and manliness, arguing that men may neglect their health in order to uphold sets of understandings about hegemonic masculinity.

Emotions are considered to be constructions of mental and cultural facets of being, highlighting the socially subjective and dynamic nature of emotions that are reshaped through different contexts, gender relations (Thien & Del Casino 2012) and experiences (Davidson & Milligan, 2004; Mattley, 2002). Through analysing geographies of emotion and masculinities, researchers gain sets of understandings about how men's plural social worlds are negotiated and co-produced through interactions within and between place(s).

## **Emotional Geographies in Disaster Research**

Disaster research predominately focuses on objective macro-scale quantitative data and technology (Adams-Hutcheson, 2018; Pickering et al., 2020). An argument is extended to suggest that silencing emotions in disaster research limits capturing knowledge about the long-term effects on individuals and communities, overlooks people's vulnerabilities, as well as their challenges, and undervalues people's capacities. Ideas embedded in the emotional geographies literature offer a rich understanding of people's realities in (post-)disaster environments.

Mackian (2004) acknowledges that "the emotional geographies of lives are brought into particularly sharp focus by life-changing experiences" (p. 615). Disasters as life changing events are linked with increasing rates of depression, anxiety and suicide (Bryant & Garnham, 2015; Dominey-Howes, 2015; Tapsell & Tunstall, 2008). Thus, an analysis of emotions in disaster research is warranted. Developments in geographies of emotion and disaster include facilitating understanding the physical and emotional labour involved in spaces of disaster recovery following the 2007 Hull floods (Convery et al., 2010; Whittle et al., 2012), and the 2001 UK Foot and Mouth Disease epidemic (Convery et al., 2008). Similarly, Morrice (2013) identified that emotions influenced people's decision to return to New Orleans post-hurricane Katrina. Using analyses of emotions enabled the authors to capture some of the *behind-the-scenes* perspectives of disaster.

Disasters can lead to mental health conditions, including post-traumatic stress disorder (PTSD), poor sleep and anxiety. In her work on relocated populations following the 2010-2011 Canterbury earthquakes, Adams-Hutcheson (2017b) uses the notion of spatialising skin to explore the ways in which trauma spills from the boundaries of the body, as embodied emotion. She argues that there is a lack of understanding of the layered complexities between the body, trauma and place. As Adams-Hutcheson (2017b) describes, trauma can metaphorically stick to the skin.

Pierre Bourdieu's concept of *habitus* and bodily hexis is used to complement the concept of masculinities, and to illustrate embodied emotion (Longhurst, 1997; Simonsen, 2007) in men's discourses of disaster. *Habitus* is the understanding of ingrained dispositions that support practices and behaviours, which underline structures of social life (Bourdieu, 1977). Bodily hexis is shaped by the *habitus*, through expressions like posture, accent and ways of standing (Bourdieu, 1977, 1990a). Bourdieu states that the body is a site of history, thus ways of being are learnt and upheld through unconscious 'rules' within place. Bodily hexis can relate to how emotions are embodied and constituted through social conditions (Sharp, 2009), that shape how emotions are expressed. This social conditioning rejects dualist understanding of the mind and body by accentuating the relationship *between* mind, body and emotion (Longhurst, 2001a).

Coles (2009) contends that bodily hexis helps describe how men negotiate masculinities stating, "masculinity as an unconscious strategy forms part of the *habitus* of men that is both transposable and malleable to given situations to form practical dispositions and actions to everyday situations" (p. 39). Specifically, gendered emotional responses of women and men can be conditioned by the *habitus* through socially constructing the display of emotion.

Disrupting the idea that emotions are bounded to the body (Sharp, 2009; Thein, 2005), feminist geographers conceptualise feelings as manifestations of emotion situated in place. Situated emotions constitute cultural and social practices (Sharp, 2009; Thein, 2005), which extend to gender performances. In order to explore how space and place construct notions of masculinities and emotion, reference is given to the ways in which the New Zealand The Southern Man trope, that embodies stoicism, strength, hard work and self-control (Keppel, 2014; Law et al., 1999), underpins discourses pertaining to expressing emotion in the aftermath of the Kaikōura/Waiiau earthquake.

### **Men, Emotion and Disaster**

Work on masculinities and geographies present masculinities as diverse and precarious shifting spaces (Berg & Longhurst, 2003; Hopkins & Nobel, 2009). However little attention is given to masculinities, geographies and disasters. Furthermore, it is argued that disaster scholarship has adopted masculinist modes of analysis (Adams-Hutcheson, 2018), that reflects dualist framings of the masculinist mind and the feminised body (Longhurst, 1997; Rose, 1993; Valentine, 2013). This dualism is embedded in Western culture, which regards the mind as neutral and only credible knowledge source (Longhurst, 1997; Rose, 1993). A paradox lies within dominant disaster discourses that are constituted by predominantly Western, able-bodied white men's narratives, reflecting a masculine body politic (Rushton et al., 2020), that distorts and marginalises men's emotional accounts of disaster.

The growing literature on men, masculinities and disaster, indicates that men are encouraged to adopt 'appropriate' masculine behaviours in crisis. Examples include being strong, aggressive, calm, reliable, taking risks, controlling emotions, and avoiding 'feminine' behaviours (Bryant & Garnham, 2015; Dominey-Howes, 2015; Pacholok, 2013; Eriksen, 2014). Lucas's (1969) study on the 1958 Canadian Springhill mine disaster provides an early insight into performances of masculinity depicted in miners' attempts to manage emotions whilst being trapped in a collapsed mine. Confined in groups, miners avoided "crying like a baby" and "going to pieces" through enacting 'rational' behaviours of "keeping your head" in front of fellow miners (Lucas, 1969, p. 125). Strong notions of ideal forms of masculinities were prominent in men's narratives of being trapped.

More recent research has captured the experiences and perspectives of men across the global North and South (Enarson & Pease, 2016). Parkinson and Zara's (2016) research on the Australian Black Saturday bushfires, identified expectations that men cope with the fires; "...to be brave, decisive, unemotional and stoic and to not break down in its aftermath" (p. 83). The men interviewed struggled to "live up to the impossible" with men expressing emotion in their talk about suicide, flashbacks and anxiety, while recognising that seeking help was not an 'accepted' masculine behaviour (Parkinson & Zara 2016, p. 83).

In her work on gender and wildfires, Eriksen (2014) discusses how men attempted to sustain a degree of hegemonic masculinity, drawing on cultural practices and virtues pertaining to acceptable expressions of emotion. Gendered practices were embedded in men's emotional bushfire discourses. Although all her research participants had different wildfire stories, similar emotions were evident across the interviews. Bryant and Garnham's (2015) research on Australian farmers identified that drought induced stressors, coupled with feelings of shame, failure, loss of pride and ideas about help seeking 'undoing' masculinity, were contributing factors to farmer suicides. Further geographic work includes Gorman-Murray's (2011) research on the Australian economic crisis and men's sense of belonging, and Dominey-Howes's (2015) emotional account as a male researcher working in disaster environments that explored the role of masculinity in embodying strength and minimising the display of emotion. The literature on men and disaster highlights the complex intangible role of masculinity in governing men's expression of emotions and distress. While there is growing literature on understanding how men are affected by disaster, further research is needed that explores men's emotional experiences of disaster.

## **Methods**

On November 14th, 2016, Aotearoa, New Zealand was shaken by a 7.8 magnitude earthquake, resulting from over 20 faults rupturing across North Canterbury and Marlborough (GeoNet, 2016). The shaking lasted almost two minutes which was felt throughout the North and South Islands (GeoNet, 2016). Two people died, and 580 reported injuries stemming from the earthquake (ACC, 2017). The earthquake caused dams to breach, 80,000-100,000 landslides and a tsunami provoking the evacuation of several thousand residents (GeoNet, 2016). Kaikōura and surrounding areas were isolated, and supplies needed to be delivered by

helicopter and sea (NEMA, 2016; Phibbs et al., 2018). In this paper, the Kaikōura earthquake (official name) is referred as the Kaikōura/Waiiau earthquake to recognise those in North Canterbury and Marlborough who named the event the Waiiau earthquake.

Geographies of emotion stem from feminist methodologies, where emotions are understood to provide insights into people's interactions with, and between others and the environment (Davidson & Milligan, 2004). This article is based on qualitative research conducted on the Kaikōura/Waiiau earthquake, involving in-depth semi-structured interviews with 19 men who experienced the earthquake. Participants ages ranged from 35-75 years old, including migrants (1), Māori (1), Pākehā (17). Occupations included retirees (2), emergency service personnel (2) and military personnel (1), emergency managers (4), a vineyard worker (1), a builder (1), civil servants (2) and self-employed individuals (6). Interviews took place in North Canterbury and Marlborough between November 2018 and July 2019. Social media, posters, personal network and local newspapers and newsletters were used to recruit participants. Interview topics included memories of the earthquake event, challenges, psychosocial and physical impacts, individual and community strengths and coping strategies. Interviews were digitally recorded and transcribed verbatim. Silences are indicated by a common lexical convention; measuring the duration of pauses. Each transcript was returned to participants to check the accuracy of the representation and interpretation. Thematic analysis was used to manually code each transcript, and an inductive approach was adopted to categorise the narrative data into themes (Braun & Clarke, 2006). One of the themes focused upon emotion. Additional themes: *silences*, *emotional work* and *temporality*, pertaining to emotion were identified from further analysis of the transcripts.

The research employed a feminist methodology, seeking to minimise bias and separation between researcher and participants, thereby avoiding producing distorted knowledge (Hesse-Biber, 2014). Feminist methodologies reject the notion of 'value-free' knowledge production, arguing instead that knowledge is constructed through intersectional differences, and divergent experiences between the interviewee and interviewer (Valentine, 2002). Attention is given to reflexive practices that interrogate the researcher's position, identity and biases that can influence dynamics between interviewer and interviewee and the research process and data (Moss, 2002; Simandan, 2019). Feminist research recognises the multiple channels, worldviews and experiences that constitute knowledge (Moss, 2002; Simandan, 2019), including social difference that can shape the interaction and rapport between the researcher and participant (Valentine, 2002). To provide context, the interviewer was a British woman in her late 20s. Literature on women interviewing men attend to two core principles. Firstly, patriarchal power dynamics may position the female interviewer in a vulnerable situation vis-à-vis the male interviewee (Lee, 1997). Secondly, men interviewed by women are more likely to feel more comfortable, less judged and therefore may provide more insight into their experiences (Arendell, 1997). During interviewing, the interviewer felt that she was not in a vulnerable position, and that participants were at ease, indicated by men displaying emotion in her presence. In addition, as an 'outsider' to New Zealand, the researcher may have posed less of a threat to participants and their masculinity. Several participants indicated that the interview was the first time

they had spoken about personal impacts of the earthquake. An argument can be made that the spatiality of emotions are governed by participant's decision to share their stories within bounded and controlled spaces, while silencing their stories outside of the interview setting.

Earthquakes as profoundly traumatic events can create significant disruption, trauma and loss. Attention therefore is given to care ethics pertaining to researching potentially vulnerable participants (Liamputtong, 2007). While interviewing can be a therapeutic process for some people, it can also generate distress and relived trauma (Liamputtong, 2007). The researcher explained to research participants that they could stop the interview at any moment. The researcher also brought information about local support services in the event that participants wished to seek professional support. Two participants became distressed recalling their experiences of the earthquakes. On both occasions the researcher followed ethical procedures by asking if they would like to stop the interview. Only on one occasion did the participant want to pause for five minutes but insisted that they continued with the interview. Notes were taken during and after the interview to detail unspoken elements of the interview, for instance embodied emotions, mannerisms and body language. This information enabled an examination of the role of *habitus* and bodily hexis in the data gathered. The research received ethical approval from the Massey University Human Ethics Committee (approval number: 18/13).

### **Men's Geographies of Emotion Post-Kaikōura/Waiiau Earthquake**

This section discusses the outcomes of the research using three topics to illustrate the theoretical aspects of the theme of emotion. The first theme explores men's *emotional work* in coping with adapting to and confronting their changed environment. *Silences* is the second theme explored through analysing how emotions are represented by pauses in the interview transcripts. The third theme is *temporality*, which concerns how the earthquake is situated in the past, but the experience of the event is reflected in emotions felt in the present.

#### **Navigating Emotional Work**

Emotional work in disasters is often associated with women's intensified unpaid domestic work in the home and community (Fordham, 1998). This research identifies that men also undertake emotional work to manage trauma and changing circumstances created by disaster. In the following paragraph, Patrick casually responds when asked what skills he drew on to cope with the earthquake and subsequent aftershocks.

Just getting on with it really. Not being too hung up on it, not being freaked out by it and stay strong and try and make it as normal as it possibly can be for the kids, which wasn't easy. Like count the aftershocks, how many aftershocks do you think there will be tonight, while we're all sleeping on the floor in the lounge together. "That's one, that's two!" That sort of thing (Patrick, 35-44; Pākehā).

Patrick's space-time experience (Anderson & Smith, 2001; Bondi, 2005b; Davidson & Milligan 2004) is apparent in his activities to prepare his children for aftershocks during the night. He undertakes emotional work in the home through playing games to distract and construct a safe, fun space for his children. In this instance, sense of home has transitioned from a familiar and secure place to a space of vulnerability (Fordham, 1998). The physical dimensions of the earthquake overlap with the private space of the home, which provokes Patrick to (re)construct a sense of safety for his family.

A juxtaposition lies between Patrick undertaking emotional work, as described above, while "not being too hung up on it" and "stay[ing] strong" suggests attempts to detach from emotion, in order to comply with characteristics of a *habitus* that is associated with hegemonic masculinity (Bourdieu, 1977; Connell, 2005). In stating it was not easy to create normalcy, he discloses that concealing negative emotions like fear, from his children was a challenge.

Dale also demonstrates emotional work in his role as a father and protector: "neighbours showed up...I might have been a bit selfish you know but I wasn't leaving my kids, but they came over to check if everything was alright and they'd already been around the neighbours." Dale was anxious about being physically distanced from his children. Checking on neighbours and people in the wider community is often a role undertaken by men. Dale stating that he "might have been a bit selfish" for staying with his children indicates that he was aware that he did not carry out expected masculine duties associated with helping the community respond to the disaster. Dale alludes to spatial mobility, yet is reluctant to be more mobile, instead choosing to stay within spaces occupied by his children. He also talked about how he often thinks about accessing his children at school if another earthquake struck. For Dale, restricting spatial mobility by maintaining proximity between himself and his family are embedded in his thoughts and actions in post-earthquake spaces.

The trauma of the earthquake provoked a need to adapt to the changed environment, which generated new perceptions of earthquake dangers. When asked if he had experienced any challenges since the earthquake James disclosed that "...not knowing would be the hard part" and "always checking up and seeing where they [partner and children] are just so I know where they are." Like Dale and Patrick, since the earthquake James has undertaken emotional work to ensure he can locate his family at all times. He further commented that earthquake risk "keeps the old mind ticking," signifying that earthquakes and the safety of his family are never far from his mind, reinforcing his role as protector. Emotions inform the interactions between the self and place (Thien, 2005), evidenced by James's hyperawareness of earthquake risk spaces. His story captures how overlapping physical and social spaces within New Zealand's South Island are continually reconstructed by historic natural hazard events (re)shaping present and future behaviours and emotions.

Two people were killed during the earthquake, including Gary's partner Jo who died from a blunt force head trauma after being thrown into a doorway post during the earthquake (Howie, 2017). After the earthquake, there were media reports incorrectly detailing that Jo had died from a medical event (van Beynen, 2016). The inaccurate details of Jo's death caused additional emotional labour, as Gary explains:

Some people say they didn't even know anyone died in that earthquake. "Oh you're the one whose wife died of the heart attack?"...It just made me more and more fuming to see that people still thought that she died of a heart attack in the earthquake. It fucking wasn't. Even now I'm still pissed off with it. That's my anger coming out there. That sort of gets me over the thing. But I tell everybody...That's my way of dealing with it (Gary, 65-74; Pākehā).

Circumstances surrounding the inaccurate media and public discourses of Jo's death have complicated Gary's experience of the earthquake, creating emotional work for him to navigate in correcting the misinformation, alongside grieving. He occasionally moves into social spaces within New Zealand where individuals repeat incorrect details about Jo's death, that were published in the media in the initial weeks following the earthquake. Gary recognises how he uses emotion, specifically anger as a means of coping and possibly distracting from the loss of Jo. His experience highlights the importance of not underestimating how external factors, such as the media, which operates across physical, social and temporal spaces, may increase an individual's emotional experience of disaster.

In the following extract, George uses a storied analogy of Diana and the golden apples to explain how he worked to carry the weight of his emotional response to the earthquake. There are many versions and interpretations of this story, but here George describes his reading of the story.

Diana is the strongest...The best runner and she'll only marry who she cannot beat in a running race...And she's in love with this dude but he's not strong or fast enough...Diana also loves bling...So they hide these golden apples and during the run "ooo something gold," so she swoops to pick up an apple, and every time she goes to get an apple it slows her down because she's carrying. And what I mean is that it was just another thing to have to pick up along the way. The earthquake experience...It was just another thing to carry (George, 45-54; Pākehā).

Bodily hexis refers to the marks that time has left on the body expressed in ways of "standing, speaking, walking...thinking and feeling" (Bourdieu, 1977, p. 87). George's analogy indicates how emotional distress stemming from the earthquake was like a physical weight occupying the body's space, supporting the idea that trauma is an embodied experience that gets under the skin. The earthquake created an additional burden which over time caused disruptions to George's life and metaphorically restricted his spatial mobility. During the interview, George disclosed he has an alcohol addiction but is currently sober. Following the earthquake, he became addicted to codeine through self-medicating for a sprained ankle. He realised he was not in any physical pain, nevertheless continued to use codeine as a method of coping with his emotional state following the earthquake.



So, I'd get this double whammy of endorphins and codeine. And again it was just trying to just, to get a bigger and bigger high...while the fear was always there [pause +1]....It was like it was a cat in the room, it was over there but it wasn't sitting on your leg...you could see it and you could go "I know you can sit on my leg but I'm quite drugged out now and I'm not even going to worry about you being in the room" (George, 45-54; Pākehā).

The narrative implies that the *cat* George refers to is *fear* corresponding to the earthquake and in order to control the fear, he looked for familiar means of coping. The emotional trauma of the earthquake pushed the boundaries of George's addiction. Although he did not start drinking again, he took another substance with similar effects. It can be inferred that George sought to deliberately transform the space of his home from feelings of fear, to comfort and relaxation. Through the use of codeine, he changes the senses of place/space and how he occupies those spaces post-earthquake.

Past experiences and culture influence the *habitus* and bodily hexis (Bourdieu, 1977), signifying that George's embodied response and coping mechanisms to the earthquake are shaped by his history of addiction, which is embedded in the use of alcohol as a method of coping among some men (de Alwis, 2016; Parkinson & Zara, 2016). George states that substance abuse was a form of masking, which correlates to a recurring theme within the narratives that *distracting oneself* is used as a method of coping and/or dealing with the aftermath of the earthquake. Tohorā, as an exemplar, talks about being too busy to think about things, adopting a pragmatic method of focusing on tasks. to cope

I can put things to the back of my mind and just get on with it...You have to deal with what is in front of you. I don't think I came out with post-traumatic stress syndrome...I was too busy to be anything else (Tohorā, 65-74; Māori).

Tohorā suggests PTSD can be avoided by keeping busy. He also infers that putting thoughts and emotions aside enables him to deal with the practical tasks required. Scott in the narrative below also indicates that keeping busy was a distraction.

I think most of us guys do what guys do best when something like that happens. We just find things to do. That's what they said [work colleagues], they just went out and done stuff around the house, checked things out and just kept themselves busy...If you're keeping yourself busy then you're not rehashing everything and bringing up fear (Scott, 45-54; Pākehā).

Scott discusses how keeping busy and distracting oneself was a conscious and direct method he and work colleagues utilised to control fear. The narratives of Tohorā and Scott both suggest distracting oneself is a successful and valued coping strategy. Yet, neither participant talked about the possible mental health implications of distracting themselves. Both men created bodily boundaries through emotional work and

using distraction techniques as a method of maintaining secure control of their emotions. When asked if he recognised strengths in men in his community, Scott replied: “females start talking about it and get teary-eyed and start getting upset about it. Whereas guys were like ‘well this happened...and this fell over,’ you know? She’ll be right kind of thing.” *She’ll be right* is part of the antipodean vernacular that reflects a relaxed attitude to not worrying and at the same time signals the speaker’s location in a particular form of masculinity associated with mateship. Scott’s narrative aligns with notions of gender that associates emotion with women and detachment with men, reflecting the binary of disembodiment between men and emotion (Longhurst, 1997; Rose, 1993). The normalised public narrative of *she’ll be right* supports the idea that suppressing distress or concern, reflects a particular male identity operating within masculine spaces in New Zealand (Keppel, 2014; Law et al., 1999).

The preceding section discussed the layered complexities of men’s experience of disaster. Men underwent emotional work and suppressed emotional distress, to create protection and normalcy for their children. They further adapted to changing emotions in physical and social spaces including managing the emotional burden of the Kaikōura/Waiiau earthquake. Two years on, participants continue to navigate the emotional work of the disaster.

### **Gendered Silences in Disaster**

*Tohorā started the interview very matter of fact, this happened, then that happened. He dressed smart, he sounded confident and sat upright. However, halfway through the interview he slumped and lowered his head. He spoke quieter, at times I struggled to hear him, and he played with his walking stick, tapping it on the legs of the table. He struggled talking about his home and how the earthquake affected his family. The atmosphere of the interview changed very quickly when I asked how he had coped (Fieldnotes, 2018).*

The *habitus* may be referred to as the socially made body expressed through dispositions, which shape and are shaped by social conditions (Bourdieu, 1990a). Emotions interact with and are practiced and performed on the body through talk, gestures, expressions and movement (Simonsen, 2007). Presented in the fieldnotes above, the difficulty in speaking about the challenges of the earthquake is seen in the presentation and expression of Tohorā’s embodiment of emotions. Hutcheson (2013) calls this embodiment, ‘unheard noises.’ These ‘noises’ such as body language and ways of speaking provide insight into the ‘unheard’ effects of disaster. In addition, embodied emotions are meaningful by drawing attention to what is not said. Tohorā proceeded to shift the focus of the interview back to discussing the actions undertaken and the material impacts, further silencing his emotional accounts of the earthquake. The body is a space of control, however trauma as an embodied experience can spill from the body (Adams-Hutcheson, 2017b). Hegemonic masculine identity has an investment in securing the boundaries of the body in public. However, the trauma of the earthquake is recognised in Tohorā’s embodied response to a problematic subject. His

original posture mirrored the *habitus* and bodily hexis associated with hegemonic masculinity. He enacted a form of cultural silencing (Parr et al., 2005) to divert showing emotion. It was evident throughout the analysis of the transcripts, that silences were common in evoking memory of the earthquake. Silences and pauses can be a sign of difficulty in recalling a traumatic or distressful time (Chafe, 1995) and/or can be deliberate attempts to conceal emotional distress (Parr et al., 2005). This section explores how silences govern men's emotional response and recovery.

Resources poured into the communities impacted by the earthquake. Some came from international donors, government and councils in New Zealand, but also from individuals and families. Indicated by pauses, the generosity of strangers was problematic for Carl and Dale to talk about.

I remember there was a vehicle that came in with a load of home baking in ice cream containers and in one of them there was [[crying]] [pause+1], sorry. It's quite emotional [pause+2], there was a smiley face drawn on it and I hadn't had any sleep in a couple of days and I'd just unloaded this, and I was just like wow, you know. What a great country we're in that people care. And I just burst into tears [laughs] when I saw that it was just so humbling the support we had, and I will never forget it. (Carl, 45-54; Pākehā).

Carl signals his sense of place within New Zealand by stating "what a great country we're in." The pauses in Carl's narrative signifies challenges for him to verbally express an emotional memory relating to the earthquake. He makes his emotional response to that memory clear, by saying the support received "was humbling." Difficulty in speaking about a distressing memory is also evident in Dale's narrative:

I remember coming home one night...and there was a big box on the deck [pause+4]. It was from, I think they're called 500 friends<sup>21</sup> or something like that [[crying]] [pause+15] and the thought [pause+10] and I think there was some handmade cards and that [pause+5] from kids and I just remember that I came in and I just [pause+7] and I just absolutely broke down [pause+10]. Sorry...[pause+13] I think I obviously had bottled it all up until that point [pause+12] but yeah, I don't know I probably just there, was quite a moment and I just remember I bawled [pause+6] (Dale, 35-44; Pākehā).

It is problematic for Dale and Carl to revisit and re-tell these moments which, when following the earthquake, had originally caused a strong emotional response. Both men cried during their interview when talking about the donations they received. The struggle to articulate their memories of the delivery of gifts is emphasised through pauses, which manifest when Dale and Carl look back on encounters that

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21 500 friends is a grassroots initiative that helped residents across Canterbury affected by the 2011 earthquake, by initiating a collection of gifts, care packages and supplies from residents across New Zealand, and sending them to people in Canterbury. Following the Kaikōura/Waiiau earthquake, 500 friends also helped earthquake affected communities in the same way.

continue to provoke strong emotions. The meanings of those specific events draw on past emotions; yet those emotions were felt anew during the interview. It is evident in these two tearful stories, that the earthquake had been a traumatic event for both men. The trauma is expressed through the long pauses and emotion that still lives with them two years on from the earthquake. These tearful interviews accentuate Simonsen's (2007) notion, drawn from Merleau-Ponty (1962) that emotions are an *expressive space* that enact *living meanings* onto the body. Furthermore, the narratives demonstrate the spatial dimensions of emotion's 'grasp' on the body, whereby participants are aware of the embodied effects of their emotional experiences (Simonsen, 2007), both at the time of the earthquake and during the interview.

Dale and Carl's stories draw attention to the embedding of emotion in place and across spatial scales (Massey, 1994). The donors had an emotional response to witnessing fellow New Zealanders affected by the earthquake, evidenced in decisions to send messages and gifts. In this instance, social and physical spaces connect through shared senses of place.

Similar to George's analogy of Diana and the apples, it can be inferred that Carl and Dale also carry emotional weight. Dale discloses that he had tried to control his emotions, another form of silencing (Parr et al., 2005). The children's donations created such strong reaction that he lost control of his emotions. Carl blames lack of sleep for his emotional response to the delivery, by stating that he does not cry, enabling him to maintain his sense of self as a masculine individual. Given both men chose to disclose the emotional encounters, suggests these moments were meaningful and shaped their earthquake story. Furthermore, crying in an interview could be indicative of two situations. Both participants may have 'bottled up' their feelings and memories of the earthquake, causing them to 'lose control' of their emotions in the interview. It could also be suggested that the interview environment provided a comfortable and safe space in which participants could open up about their emotional experiences.

Several participants disclosed during interviews or in correspondence prior to meeting, that the interview was the first time they had spoken to others about their personal experience of the Kaikōura/Waiiau earthquake. These men used silence to avoid talking about their experience in public spaces (Saunders, 1995; Pease, 2012), emblematic of men's adopted management strategies to control displaying emotion (Thien & Del Casino, 2012). Visible embodied emotion would identify how the earthquake had physically and psychologically affected them. Public management of private feelings highlights how emotions are fundamentally related to place (Davidson & Milligan, 2004) and embedded in social relations (Anderson & Smith, 2001), evidenced in the lack of emotive narration in everyday life. Davidson and Milligan (2004) name the connection between place and emotion as the "emotio-spatial hermeneutic" (p. 524); where emotions are contextual and understood in relation to specific places. Silenced narratives in this instance are shaped by social discourses of the bodily hexis constructed by place-specific masculine behaviour that values suppressing emotion within social spaces; in this context, spaces of rural hegemonic masculinity in the South Island of New Zealand (Keppel, 2014).

Post-earthquake, Rob's employer provided a service where support personnel visited emergency service spaces, and checked in with employees, asking "how you going?" Rob stated men fled and hid when volunteers arrived. When asked why he thought that was, he explained:

Well, they're all blokes actually [laughs]. I think they're a wee bit worried that um someone else would hear the conversation...And it might raise things that they didn't want to talk about. They were quite happy to just leave it under the table and not deal with it...It used to amuse me..."What the hell are you big burly, tough dudes running away from a lovely old lady?" [Laughs] (Rob, 55-64; Pākehā).

Rob's "burly, tough" colleagues avoiding talking about how they are feeling illustrates how the *habitus* is shaped by sets of understandings about emergency response (Pacholok, 2013) and a form of hegemonic masculinity in New Zealand (Keppel, 2014; Law et al., 1999). He suggests a concern regarding others hearing talk of feelings and struggles, relating to the objective structures of the *habitus* as well as ideas that masculinity is performative and dependant on presenting a controlled image of oneself (Bourdieu, 1997, 1990a; Connell, 2005; Keppel, 2014; Law et al., 1999), which is strongly embedded in emergency service spaces (Pacholok, 2013). These spaces can be referred to as "public spaces of rational men" (Longhurst, 2001a, p. 5), and thus emotions within these spaces could be construed as being 'out of place.' Physically removing themselves from spaces occupied by the volunteers, signifies a fear and distrust of 'leaking bodily boundaries' (Longhurst, 2001a), extending to 'leaking' talk and emotion, that could provoke conflict in upholding hegemonic masculinity performances. As Longhurst (2001a) argues, "men... are often understood to have secure (autonomous) bodily boundaries – bodies that are 'in control'" (p. 2). She further comments on how the body is not necessarily about skin, blood and fluids, but rather the importance lies in the body's interaction within, and the role in the construction of spaces.

Rob uses descriptive language to create a humorous image of a 'type' of man associated with strength and bravery, running away from a contrasting body; a "lovely old lady" associated with gentleness and kindness. Rob, nevertheless, suggests the men may not be emotionally strong enough to talk, therefore leaving "it under the table," is a metaphor for silencing how the earthquake has affected them. Rob's account reflects the idea that emotions belong within the privacy of the home (McDowell, 2009). This home-work dualism reflects the *habitus*, where men's identity in the workplace is shaped by embodied masculine performance, therefore suppressing emotion and silencing their earthquake experiences assists in constructing/maintaining a valued form of hegemonic masculinity in New Zealand.

The narratives discussed in the preceding section are shaped by silences. Subtle details noted within interviews, such as sighs, pauses and long drawn breaths "are profoundly meaningful" (Poland & Pederson, 1998, p. 294) and can be valuable for researchers to understand more about the people and contexts they study (Hutcheson, 2013). Silences can take many forms and are often theorised as a form of avoidance (Jaworski, 1997). The pauses discussed in this section are distinctive in multiple ways; (1) a method to control emotion,

(2) a demonstration of the difficulty in recalling emotional memories, (3) avoidance talking about experiences with *anyone*, constituting a total silence and (4) keeping busy, creating temporary silences through bodily distractions. It was rare for participants to disclose feelings or personal challenges to others, thus more broadly men's emotional experiences of the Kaikōura/Waiiau earthquake may have also been silenced.

### **Emotional Temporalities and Disasters**

Temporal analyses of narratives enable researchers to unpick the meaningful features of human experience (Ricoeur, 1984). Although interviewing took place two years after the Kaikōura/Waiiau earthquake, it was evident that emotion was still generated by recalling memories of the earthquake. As Erikson (1995) states, "the traumatised mind holds on to that moment, preventing it from slipping back into its proper chronological place in the past, and relives it over and over again" (p. 185). Therefore, it is recognised that emotion and distress is not always situated in the past, and some individuals within disaster affected populations will re-live experiences that generate emotional trauma.

The spatial dimensions of people's experience of the earthquake are illustrated in participants' talk that situate emotion within a present temporal framework (Mattley, 2002). Earthquake narratives illustrate how significant life experiences continue to reshape present realities. As George's narrative of fear indicated in the preceding section, the present is shaped by the earthquake, which is situated in the past. Denzin (1984) poses that "the temporality of emotion as lived experience blurs the distinctions among past, present and future...The person sits 'perched' looking in two directions...While being pulled into and through the present" (p. 58). This viewpoint infers that, the memory of the earthquake cannot stay in the past and supports the idea that analysis of the spatial and temporality of emotions can assist disaster scholarship in understanding people's post-disaster realities.

Following the earthquake, James worked on repairing and demolishing damaged buildings. When asked how he felt seeing and pulling down a particular earthquake damaged building he said it: "just gives you goosebumps." Often associated with strong emotional responses (Schubert et al., 2018), goosebumps imply pulling down the building provoked embodied emotions (Hutcheson, 2013) connected to reminders of the earthquake. Metaphorically, the memory of the earthquake seeped out of James's body, and stuck to his skin (Adams-Hutcheson, 2017b). His embodied response to sighting an earthquake affected space, evidences the relation between bodies, emotions and spaces (Adams-Hutcheson, 2017a; Davidson & Milligan, 2004; Gorman-Murray, 2013). This embodied response, demonstrates how bodies are multiscalar (Gorman-Murray, 2013), making intangible connections between emotions and the body that continually govern the spatial effects of the earthquake (Davidson & Milligan, 2004).

People with past experiences of earthquakes, can be hyperaware of spaces that provoke earthquake fears (Adam-Hutcheson, 2017a). Adam-Hutcheson (2017a) draws on ideas about the motion of earthquakes becoming imbued in the body. That is, the body becomes sensitive to vibrations, triggering reminders of ground motion. This paper advances Adams-Hutcheson's (2017a) arguments about embodied vibrations and mobilities of disaster affected populations by drawing attention to how hegemonic masculinity underpins

deliberate attempts to conceal effects of disaster on men's bodies. This research identifies the paradox that lies between men's attempts to silence the effects of disaster on the body, while experiencing uncontrolled embodied emotions such as goosebumps, that threaten to disrupt the hegemonic masculine image.

Goosebumps challenge the bodily hexis and concepts of hegemonic masculinity by exposing the emotions felt by the individual, which can disrupt social constructions of masculine gender performances that discourage exhibiting distress. James also has trouble sleeping as a result of the shaking, here he states that: "little funny noises might wake me up and I'm like 'what's that?' Yeah, thinking it might have been a little tremor in the back of my mind, maybe let's get ready to go." Like experiencing goosebumps from visual reminders of the earthquake, James is hyperaware of movement and noise. This hyperawareness establishes the relationship of emotions and the body, the environment and the spatial and temporal dimension of post-disaster recovery. James is physically impacted by the memory of the earthquake, although his experience of the shaking was temporally situated in the past and at home, thoughts of earthquakes are spatially and temporally mobile as he moves between home and workspaces.

Oliver was actively involved and volunteered his time helping after the earthquake. When asked how he thought he had coped following the earthquake Oliver stated:

I did get frustrated with people not moving on. I had a [colleague] who kind of got quite badly affected by it...I got quite frustrated with that, because that's like, five months, six months, twelve months on, let's just you know. So maybe I was a little bit, not as empathetic towards other people's situations that I could have been. But for myself, yeah, achieved that, done that, ticked that, moved on (Oliver, 45-54; Pākehā).

Oliver's talk indicates that he felt time equated to distance, whereby as time passed, the further away the earthquake and its impact were located. He suggests as the earthquake is in the past, people should move forward. This corresponds to public narratives that outline an appropriate temporality for recovery pertaining to masculine discourses of controlling expressions of emotion. For Kaikōura, the recovery narrative correlated to repairing infrastructure and re-opening the roads (Kaikōura District Council, 2019), suggesting once the physical damage has been repaired, the town had recovered. However, Oliver states he now recognises that for some people, time does not sever memories or feelings of the earthquake, and that some people are still emotionally affected. Like Tohorā and Scott, Oliver feels that keeping busy, achieving tasks and moving on is a strategy for, and a sign of coping and reducing the effects caused by the earthquake. Parkinson and Zara (2016) identified that there was an acceptable length of time for men to be affected by the Black Saturday bushfires. Within their research participants discussed how they were penalised for not recovering more quickly. There is a pattern of time for recovery, which is envisaged through public and institutional discourses (Whittle et al., 2012). In accordance with antipodean-centric notions of men and disaster, it can be argued that time is used as a method to encourage standards of hegemonic masculinity, encouraging men to manage challenges, including emotion in order to recover quickly.

Temporalities shape narratives, thus the stories of the Kaikōura/Waiiau earthquake discussed in this section are situated in time and space and in relation to the body and social context. Participants negotiated between the temporal and emotional dynamics of their earthquake experiences showcasing how temporalities might be drawn on to explore challenging events in individual lives over time.

## **Conclusion**

Centring emotional geographies in conversations on disasters and men's stories draws attention to the relationship between spaces and environments that can underpin the expression of emotion. Through the use of Bourdieusian theory (1977, 1990) and concepts of masculinity (Connell, 2005), which provide frameworks for understanding how emotions are embodied and shaped by the *habitus*, bodily hexis and ideas about masculine identity, this paper highlights how emotions form the fabric of men's disaster experiences (Davidson and Milligan 2004). The research identified that men adopt distinctive methods of controlling emotion such as deflection, silencing and consciously forgetting. Participants tended to equate coping with not showing or experiencing emotion, yet subtle emotional cues as well as overt expressions of emotion were evident in the participants' narrated stories. Through examining personal accounts of disaster through the analytical lens of emotional geographies, this paper also illustrates the value of researching men post-disaster through capturing and understanding the mediating role of masculinities in place in shaping men's emotional experiences over time.

Contributions are made by supporting existing bodies of literature on emotional geographies and gender and disaster, as well as addressing a knowledge gap in understanding rural men's experiences of disaster in New Zealand through analysing personal stories through the lens of *habitus*, bodily hexis and hegemonic masculinity. Further contributions are more broadly to disaster scholarship, by demonstrating the value of considering the role of emotions in disaster research. As this paper showcases, when attention is given to emotion, understandings of the complexities of personal realities in post-disaster environments can be gained. We encourage further critical inquiry into men's emotional lives within disaster research that recognises the complexities of gendered experiences of disaster. Understanding how spatially situated, hegemonic masculinity underpins the emotional impacts of disasters could facilitate providing gender appropriate and tailored support in disaster risk reduction policy and practice.



# 6

## Mobile, Spatial and Temporal Stories of Disaster

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*"Perhaps we could imagine space as a simultaneity of stories so far"*

*Doreen Massey (2005, p. 32).*

Chapter Five explored the emotional geographies of rural men's experiences of the 2016 Kaikōura/Waiiau earthquake, including the multiple ways in which their personal stories were silenced. The fourth and final research article presented in this chapter, offers a theoretical discussion of metaphysics, and how the immaterial can extend understandings of space, time and mobility furthering understanding of participants' experiences of disaster. Davies' (1990) concept of process time is utilised to examine the mobility and precarity of temporalities in disaster spaces. Conceptualisations of metaphysical spaces, mobilities and temporalities coupled with understandings about process time, provide insight into the multiplicities of men's day-to-day realities in (post) disaster contexts. Due to word constraints, a shortened version of the following Chapter (see Appendix O) entitled: Time, space and disasters: An exploration of mobile, temporal and spatial geographies in men's stories of the 2016 Kaikōura earthquake in New Zealand, has been submitted for publication in *Transactions of The Institute of British Geographers*, and is in review.

# **Time, Space and Disasters: An Exploration of Mobile, Temporal and Spatial Geographies in Men's Stories of the 2016 Kaikōura/Waiiau Earthquake in Aotearoa, New Zealand**

## **Abstract**

Emergency management institutions conceptualise time and space as static and structured into phases; readiness response, recovery and resilience, which are perceived as linked and progressive in a linear trajectory. Disaster scholarship has also often uncritically accepted these concepts as uniform and applied them in policy and research (Aguirre & Lane, 2019). Yet, this uniformed organisation of space and time does not account for the multiplicity of individual disaster experiences. This article draws on conceptualisations of metaphysical spaces, mobility and process time to inform analysis of rural men's stories of the magnitude 7.8 Kaikōura/Waiiau earthquake. Semi-structured interviews were conducted with 19 men who resided in the Marlborough and North Canterbury regions of Aotearoa, New Zealand, to capture their personal experiences of the earthquake. Research outcomes demonstrate that rural men's earthquake experiences were constructed by multiple, mobile and overlapping metaphysical and physical spaces. Process time, which refers to immeasurable quantities of time, was used to highlight how accumulations of earthquake-related projects fall outside of the structures of time and space principally used within disaster management. Further findings showcase that participants' day-to-day lives were shaped by challenges such as disturbance to life trajectories, which precipitated reoccurring trauma and a need for ongoing recovery practices. This article considers how understandings of space and time can be extended to capture the mobile, unseen spaces and temporalities, such as embodied trauma, that operate simultaneously within physical and social spaces. New insights into the unobserved metaphysical dimensions of disaster response and recovery are presented.

**Keywords:** Metaphysics, space, time, mobility, masculinity, gender

## **Introduction**

Throughout the last decade, Aotearoa New Zealand has experienced significant natural hazard events including the 2010-2011 Canterbury earthquakes, Kaikōura/Waiiau earthquake (2016), Edgumbe floods (2017), and the recent Te Puia o Whakaari (White Island) volcanic eruption (2019). The increasing incidence of hazards is reflected globally, and the ways that natural hazards intersect with human populations, and how they may create psychosocial stressors is apparent (Dominello, 2020; Dominey-Howes, 2015; Parkinson & Zara, 2016). Research outcomes highlight the immediate impacts, resilience and vulnerabilities of people over time. This paper contributes to understanding how disasters alter people's day-to-day lives by drawing on time-space concepts to explore the ways in which individuals respond to changes and stressors in disasters.

Time and space are often hyphenated (Dodgshon, 2008), or joined (May & Thrift, 2001), which illustrates their inter-dependent relationship (Schwanen & Kwan, 2012). The interwoven and multidimensional concepts are resources on which activities and experiences play out. The use of video call technology to communicate with others across time and space, as an example, has shaped people's interaction with

space by minimising the perception of distance across global scales, and effectively compressing time-space (Massey, 1999). Examining experience through the ontological position of time-space generates knowledge in regard to the development of, and micro-connections between the structures, patterns and routines of daily life (Dijst, 2009; McQuoid et al., 2015; Shove et al., 2009). Understandings of the complex and multiple behaviours, actions and (dis)advantages in human experience are also enhanced (Dijst, 2009; May & Thrift, 2001; McQuoid et al., 2015). Although time-space is grounded in geographic inquiry, few studies have used time and space to explore people's disaster realities. More specifically, understandings about how spaces of masculinities shape rural men's responses to, and recovery from natural hazard events, are poorly documented.

This article examines rural men's stories of the 2016 Kaikōura/Waiiau earthquake in Aotearoa, New Zealand, through space and time. Analysing disaster narratives will facilitate understanding of how disasters create shifts in perceptions of space and time. While time-space has been conceptualised as fixed and objective (Hägerstrand, 1970, 1985), this research adopted a feminist research approach to enable conceptualisation of time-space as fluid and subjective (Bondi, 2005b; Rose, 1996). The theoretical concept of metaphysical space(s) is drawn on, to capture the cognitive spatial realms that shape, and are shaped by peoples' experiences, actions and thoughts which, endeavour to explain the "basic structure of reality" (Kant, 1997, p. xvii) in the context of disasters. An argument is advanced to extend geographic understandings of locale to encapsulate metaphysical dimensions of space. This article adopts the term meta-space(s), that has been applied in geography analysis (Hottola, 2005), however the definition is extended to denote the assemblage of metaphysical spaces that constitute space(s) of social phenomena, including unseen realities in an individual's subconsciousness.

The aim of this paper is to illustrate the mobility, spatiality and temporality of disasters. The day-to-day experiences of participants in disaster spaces, and multiple changes and challenges to their life course are explored. An overview of the time-space literature, including the use of time-space in disaster scholarship is presented, followed by an analysis of narratives of the Kaikōura/Waiiau earthquake through the theoretical lens of space and time. Geographical theories on space and time are advanced through expanding the concept of mobility and space-time and its application to encompass metaphysics.

### **Geography, Time and Space**

Geographers have defined space as reflecting place but without meaningful connection (Massey, 2005; Tuan, 1977). The dominant perception was that spaces are physical, static and quantified, which influenced thinking on spatial analysis (Buttimer, 1980b; Massey, 2005; Soja, 1989; Thrift, 2017). Spaces as physically bounded locales suggests apoliticism, objectivity and naturalism. Critics of objectivity (Lefebvre & Enders, 1976; Massey, 2005) claim that spaces are constructed by human experiences of historic, political and social processes that inform thought and behaviour (Buttimer, 1976). They are therefore understood as having origins in the past that are shaped by the affiliation of history, social relations and difference.

To claim space as objective, void of human experience and interaction, fails to recognise the roles of age, sexuality, class and gender in the construction of spaces (Bondi, 2005b; Haraway, 1991; Massey, 1994; McDowell, 1999; Rose, 1993). As Duncan (1996) argues, “social relations, including, importantly, gender relations, are constructed and negotiated spatially and are embedded in the spatial organization of places” (p. 4). Massey (2005) further adds to discussions on space, by proposing that space does not exist without the multiplicity of identities, and the interrelations between them. Activities, patterns and social interactions shape behaviours, relationships and actions undertaken in space (Buttimer, 1980b); therefore, space should be understood as being negotiated through social relations that are (re)constructed over time (Massey, 1994). Time like space, can be regarded as a series of social constructs that shape daily life (Davies, 2001; Friberg, 1993). Davies (1990) contends that constructions of time are created by masculine conceptions of temporalities, that reflect the ways that time has been standardised, and divided up into measurable components that are regulated by clocks and calendars. It is also argued that formations of time have been driven by trade and capitalism, rooted in colonial and patriarchal systems (Anderson, 1991; Creswell, 2006).

Space and time are considered to be inextricably linked (Massey, 2005; May & Thrift, 2001) and can be conceptualised as evolving, mobile and dynamic connections, flows of processes and networks (Ellegård & Vilhelmson, 2004). As Massey (2005) contends, controlled, static, dualistic understandings about space and time, constitutes a “spatial immobility [that] quietens temporal becoming” (p. 71). People’s experiences in space and time are multitudinous and may differ between individuals. Therefore, in order to enhance understandings of the complexities of the social world, it is necessary to explore the multidimensional aspects of people’s experiences with space and time (Adams, 2017; May & Thrift, 2001). Activities for example, require the availability and mobility of time-space (Tuan, 1977). Moreover, time geographers argue that contestation, occurs when activities compete for space and time, (McQuoid et al., 2015; Shove et al., 2009).

### **Mobility, Space and Time**

Time-geography, developed by Torsten Hägerstrand, is a theoretical approach that pays attention to temporal interactions within social and natural environments, and captures how events, activities and processes situated in time, construct reality (Ellegård, 2018; Friberg, et al., 2009). Time-geography fosters a quantified perception of socially constructed time (Davies, 1994; Ellegård, 2018), that aligns with normative understandings of time as linear, mobile along a continuum at a fixed pace (Ellegård, 2018), and measurable, as evidenced in the wide use of clocks and calendars (Anderson, 1991; Davies, 1994). Anderson (1991) contends that communities are imagined and shaped by shared experiences that are facilitated and supported by constructions of time. Similarly, to time-geography, it is contended that individuals share amounts of, and senses of time in spaces, and an argument is advanced that mapping movements in space and time will contribute to understanding social interactions (Davies, 2001; Scholten et al., 2012). Through drawing attention to the ways in which movements are temporally structured and/or constrained, (e.g., employment), time-geography has illustrates how interrogating mobility is central to time-space thinking (Ellegård, 2018; Friberg, 1993).

Guided by positivism, time-space geography views space as a box to be filled with activities, in which movements can be mapped (Crang, 2005; Davies, 2001), and lived experiences effectively objectified (Buttimer, 1976). Some researchers (Crang, 2005; Dodgshon, 2008; Rose, 1993) assert that this representation of time and space fails to consider the social structuring of experiences. It is argued that theorisations of space and time neglect the importance of time, space and mobility's dependence on the body (Rose, 1993). Hägerstrand's (1970, 1985), for example, only referenced the body in relation to its limitations, which prompted Rose (1993) to argue that time-geography simplifies the body, and to advocate for geographers to acknowledge other forms of limitations such as homophobia, sexism and racism. Rose (1993) maintains that time-geography research should regard bodies as sites of difference in order to identify how bodies interact, move, are viewed and treated. She contends, the importance of viewing bodies as central to Geography is "...because the routine actions of individual human agents in time and space, producing and reproducing social structures are represented by the paths that their bodies follow" (p. 30). Her argument mirrors broader feminist perspectives, which are grounded in understandings of how space and time shape the varied experiences of gender identities (Friberg, 1993).

### **Feminist Contributions to Space and Time**

Feminist geographers have critiqued approaches to time-space that neglect to incorporate the everyday social and gendering processes and actions of social agents (Davies, 2001; Friberg, 1993; Friberg et al., 2009). Friberg (1993) argues that such approaches view people passively rather than as social actors, divide time between simple temporal spaces of work, leisure and free time, as well as limit time-geography's perception of time-space. Davies (1990, 1994) stipulates that viewing time in this manner reflects masculine discourses that do not acknowledge patriarchal power relations. In contrast, feminist geography is committed to conceptualising and understanding the spatial-temporal, feminine, and masculine requisites that shape social phenomena (Davies, 2001; Friberg et al., 2009), and has contributed broadly towards progressing understandings of time-space.

Arguments have been advanced that disaster scholarship's valuing of masculinist research methods serve to silence the micro-narratives of disasters (Adams-Hutcheson, 2018). Masculinist methods that adopt time-space analysis devalue the embodied spatial and temporal experiences of disasters. Adopting a feminist approach addresses these theoretical concerns by enabling analysis of micro, and covert temporalities and spatial aspects of post-disaster realities.

### **Process Time**

The concept of process time (Davies, 1994) extends theorisation of temporalities beyond constructions of time as fixed and finalised, by considering the multiple and complex experiences within social phenomena. Davies (1994) introduces process time, as time that cannot be measured like clock time but is understood as extending fixed notions of temporal regularity and continuity. Reviewing care work, Davies (1994) articulates how work for hourly paid carers is unpredictable and stretches beyond the constraints

of time allocation for specific tasks. She asserts that chores may overlap and highlights the fluid spatial and temporal boundaries that pose challenges for measuring tasks. Process time resolves the difficulty in quantifying time spent on individual activities, including time expended thinking about someone, a memory or a specific task. A person is able to acknowledge that they have conducted an activity, which may be measured over the course of a day. However, tracking the time expenditure relating to that task over several days or weeks would become difficult, as this process would also include time spent thinking about something whilst simultaneously conducting other tasks. Davies' (1994) point highlights how thoughts and activities do not necessarily carve specific amounts of time or have a conclusion, but rather process time "emphasises that time is enmeshed in social relations. Several processes may intertwine simultaneously, and the fabric of life is patterned by the multiple criss-crossing chains of these processes" (p. 280). She wanted to capture the discursive plurality of time and the association between time, context and social relations. The theoretical perspective of metaphysical spaces compliment conceptualisations of physical space showcasing the activities, thoughts and processes that are immeasurable. For the purposes of this article, process time can be useful in relation to the concept of metaphysical spaces recognised as the locales in which process time is understood.

### **Thinking About Metaphysical Space(s)**

Geography that concerns time-space and mobility is often conceptualised as being static, fixed spaces across a linear temporal trajectory. Hägerstrand (1970, 1985) contends that people cannot be within two spaces at once. Yet, Gren (2001) asks whether focusing on physical ontologies of time-geography, including corporeal constraints, is a suitable approach, given time-geography seeks to analyse social phenomena. Gren infers that space and time could reach beyond the physicality of space, suggesting a move to examine metaphysics in social spaces. The idea of metaphysics in geographic inquiry is not new. Rose (2004) offers a discussion on how metaphysics guides geographic thought and therefore should be drawn on more often in Geography to help understand social phenomenon. As he explains:

We present the world as something knowable, explainable, and representable. To be sure, geography is one of many ways of building and framing the world into systems we can explain, and even within the discipline various epistemologies and methods point towards different kinds of explanation. Yet, they all implicate us in the practice of metaphysics. Metaphysics is what we do (Rose, 2004, p. 465).

However, Geography has historically rejected metaphysics as a credible source of knowledge (Grimes & Nubiola, 1997). The resistance for explicit engagement with metaphysics in Human Geography relates to the prioritisation of reductionism and determinism (Grimes & Nubiola, 1997) and perhaps the lack of an agreeable definition of metaphysics (Kant, 1997). Grimes and Nubiola, (1997) are explicit in their position on the absence of metaphysics in Geography, arguing that "many scientists have restricted themselves to

what can be dealt with in quantitative terms, which can be a poor reflection of the richness of everyday life" (p. 266). Buttimer (1976) alluded to the use of metaphysics in Geography by suggesting researchers foster phenomenologist interpretations of everyday life that challenge positivist lines of enquiry, in order to build sets of understandings of the complexities of the nature of reality. Buttimer (1976) writes: "...if one separates person and world, the wholeness of experience escapes. Person (body, mind, emotion, will) and world are jointly engaged in the processes and patterns observable in overt behaviour" (p. 283). Buttimer (1976) recognises the value of capturing consciousness, and unseen elements of human behaviour that could inform understanding the nature of reality, through non-conventional geographic inquiry. While development of metaphysics in Geography has been slow, literature has more recently emerged in which metaphysics has been applied to inquiries about space and human behaviour.

Hottola draws on metaphysics to examine how Western tourists sought spatial and temporal control while travelling in India. Hottola (2005) terms 'metaworlds,' as the "realities placed in time and space that differ from the dominant reality" (p. 2). As an exemplar, accessing spaces of familiar culture increased a visitor's sense of control, which in turn influenced, and increased time spent in that space. Hottola (2005) utilised metaphysics to illustrate the invisible, complex, bias, in the (un)conscious actions that underpinned international tourist's behaviours in affirming a spatiality of control while in a foreign country. Hottola's work provides an insight into the ways in which an analysis of metaphysical spaces can capture the unseen and subtle factors that shape human behaviours and actions. An argument is advanced that an understanding of metaphysical spaces can also offer in-depth knowledge on the ways that experiences of the Kaikōura/Waiiau earthquake are constructed by obscured behaviours and activities.

Adopting metaphysics in Human Geography can facilitate exploration of the richness and complexities of human experience (Grimes & Nubiola, 1997; Rose, 2004) and extend qualitative research analysis by facilitating detailed explorations of the complexities of people's diverse experiences. The extension of qualitative analysis through the use of metaphysics is showcased by Adams (2017) in his work on the metaphysics of encounters. His research illustrates that human encounters and communication are facilitated through physical modes of mobility (travel). However, recently, differing media and human interactions have facilitated a new metaphysics of encounter as people participate in and across multiple spaces and scales simultaneously. Adam's article draws attention to the usefulness of applying metaphysics in geographic research in order to capture the mundane yet multifaceted experiences, meanings, values, practices and structures in the composition of space, place and time (Adams, 2017; Grimes & Nubiola, 1997).

Shifts in geographic thought pertaining to space and time can enable greater theoretical flexibility in the articulation of the subtle and unseen complexities of social phenomena (Gren, 2001; Rose, 2004). Extending temporal physical spaces such as locales to encompass the metaphysicality of spaces, (e.g., the space of bereavement), can mediate social interactions, which shape and are shaped by physical space(s). Examining space in a metaphysical form, challenges thinking on the relationship between mobility, time and space. The tensions, decisions, thoughts, and processes embedded within social relations are captured and analysed

in order to develop an understanding of how the everyday experiences of individuals shape and are shaped by time. This paper, through considering metaphysics in relation to spaces can enhance thinking on time-geography by showcasing the multi-dimensional, mobile social aspects of time and space.

When considering metaphysical spaces and temporalities, positivist claims of space(s) as fixed and bounded are rejected, and conceptualisations of space as flexible, mutable and mobile are adopted. Like time-geography, mobility is embedded in the construction of metaphysical spaces and temporalities. Theoretical framings that draw on metaphysics, may extend corporeal mobility (Cresswell, 2006), through implying a movement of spaces that expand beyond the mobility of the body. Green's (2020) research, as an exemplar, explores 'digital nomads' that thrive off the dynamic flows and fluxes of digital mobility. Technology has enabled digital nomads to work remotely anywhere, enabling corporeal and digital mobility. The mobility of metaphysical spaces and temporalities, like digital nomads draws attention to the movement of projects, activities and cognitive tasks across space(s). Analysing movement of spaces and temporalities can facilitate understanding of the daily realities in human experience such as stressors and embodied trauma. An examination of rural men's stories of the Kaikōura/Waiiau earthquake, through the ontological perspective of metaphysical mobility, enables an understanding of the construction and composition of mobile metaphysicalities and temporalities in post-disaster social spaces.

While people may not be able to be physically situated in two places at once, conceptualising metaphysical space(s) facilitates an engagement with metaphysics in Human Geography; foregrounding an understanding of spaces in fluid, flexible, dynamic, shifting forms that intersect with, and are shaped by the body and physical spaces. Space in this sense is mobile, underpinning action, decision, emotion, thoughts and will. Metaphysics has a place in understandings of space, time and mobility precisely because it encourages questions around fluidity, mobility, and complexity while rejecting dichotomy and explicit objective/positivist modes of knowledge production (Haraway, 1991; McDowell, 1993). In this article, research participants' personal narratives are drawn on to illustrate the theoretical ideas of metaphysical spaces, temporalities and mobilities in experiences of disaster in space and time.

### **Disasters in Time and Space**

Disasters do not happen in a vacuum; they occur in and across space and time. Disaster research commonly regards time as linear and as moving through different phases and across physical spaces. As an exemplar, of the use of space and time in disaster scholarship, Wilt et al. (2018) employed spatial modelling and statistical methods to investigate changes in HIV testing from one week to 12 weeks following Hurricane Sandy. Similarly, Arshad et al. (2020) used a temporal GIS analysis to examine the relationship between green space, CO<sup>2</sup> absorption and climate change. A quantitative New Zealand study that examined the spatial-temporality of Christchurch residents' moods and anxieties following the 2010-2011 Canterbury earthquake sequence by collecting statistical data on health and earthquake intensities, highlighted the relationship between physical and social environments and mental health across space and time (Hogg et al., 2016). The analysis identified a correlation between low levels of mental health issues and strong



connections to stable built and social environments and linked low mood and high anxiety levels with higher levels of environmental disruption. Yet, there was a lack of analysis of the mundane and complex realities of people negatively affected by the Canterbury earthquakes such as stressors generated by insurance claim processes. Evaluation of research studies like the aforementioned exemplars, which draw on quantitative methodologies to examine predominately physical spatial and temporal dimensions of disasters, has highlighted a need for understanding the influence of social spatial and temporal structures in the formation of disasters. This paper contributes to addressing that theoretical gap.

The structured nature of emergency responses to and recovery from disasters is exemplified in the Sendai Framework for Disaster Risk Reduction (UNDRR, 2015b), where recovery, rehabilitation and reconstruction are written as separate temporal stages of disaster experiences. Disaster management's hierarchical command and control systems are driven by top-down approaches to emergency response and recovery (Imperiale & Vanclay, 2019). This application of emergency management involves a chain of command that relies on rapid response, little room for error and a military style approach of compliance and efficiency (Imperiale & Vanclay, 2019). The spatial and temporal framework of disaster management provides the context through which structured phases of response and recovery are operationalised based upon quantifiable forms of evidence, targets and timeframes. Yet adhering to strict timeframes and phases brackets out the subtle and individual impacts of disasters, such as continuous disruption to sleep due to trauma, as well as the metaphysical aspects of spaces (e.g., grief, trauma, financial concerns) and overlapping trajectories of process time. Spatio-temporal analyses can contribute to disaster scholarship through tracing the complex negotiations, patterns and shifts in experiences that are constituted by social interaction (Davies, 2001) in the context of disaster-related disruptions to environments, over time.

### **The Study Methodology**

This article is based upon a broader research project that investigated masculinity in the construction of rural men's stories of the Kaikōura/Waiiau earthquake. While more broadly men's voices dominate the field of disasters in relation to research, frontline expertise and decision making, their personal stories, experiences and needs are often neglected in disaster policy and practices (Dominelli, 2020; Rushton et al., 2020). There are concerns regarding the mental health of male disaster victims/survivors, amplified by growing disquiet regarding men's reluctance to seek needed help and support both during and following disasters (Parkinson & Zara, 2016). Over representation of men in New Zealand's suicide figures (Office of the Chief Coroner of New Zealand, 2019), has heightened concerns about the well-being of men located in regions affected by the earthquake. This paper employs qualitative inquiry and draws on concepts of mobility and spatial-temporalities to analyse rural men's experiences of a major earthquake in order to develop an understanding of the unseen and immaterial impacts of disasters that are devastating for individuals.

The research that informs this paper, concerns the impacts of the magnitude 7.8 Kaikōura/Waiiau earthquake that occurred at 12:02am on the 14<sup>th</sup> of November 2016 and subsequent aftershocks and tsunami. Centred on the Eastern side of the South Island of New Zealand, 15kms north of the small rural

town Culverden, the initial earthquake triggered the rupture of over 20 faults across the North and South Islands as well as the surrounding seabed (Geonet, 2016). Two people died and 580 people reported injuries (ACC, 2017; Stevenson et al., 2017). Although the capital city Wellington experienced damage primarily to infrastructure, the rural regions of Marlborough and North Canterbury were the significantly impacted areas. Response and recovery efforts were focused on issues in urban environments, while the needs of the severely impacted rural communities were marginalised (Phibbs et al., 2018). Effects of the earthquake were exacerbated for rural communities as key access routes between towns were cut off (Davies et al., 2017), which limited the supply of resources to those isolated communities (Phibbs et al., 2018).

The study engages with geographic enquiry to examine rural men's experiences of the earthquake with a focus on the intersection of place, space, time and well-being. The ways in which mobile metaphysical space(s) and temporalities manifest within men's stories of earthquakes are considered. Further objectives of this aspect of the research included identifying the complexities and mobilities of participant's activities as well as the hidden challenges for rural men in their post-earthquake day-to-day realities. Findings enhanced understandings about hidden stresses and personal labour that underpin and may problematise responses to and recovery from disasters.

A feminist methodology framed the research process, and shaped collection and analysis of rural men's space-time experiences following the Kaikōura/Waiiau earthquake, in order to capture the gendered organisation of disaster stories. The narratives and views of 19 men who reside in North Canterbury and the Marlborough region, were gathered using a semi-structured interview format. Interviews were conducted using a dialogical approach that enabled participants to construct their own accounts and meanings of their experiences (Valentine, 2005). Dialogical interviewing is a conversational technique that works to disrupt power imbalances between researcher and participant through actively engaging both parties in the co-production of meanings (Frank, 2005). Using semi-structured interviewing coupled with a dialogical approach facilitated an understanding of how individuals make sense of their post-earthquake realities and enabled capture of the unseen complexities, temporalities and mobilities in which participants operate daily.

Participants were recruited through disseminating information in local libraries and community centres and across personal networks as well as advertisements placed in community newsletters, on social media and in local newspapers. Rural men, aged 18+ years who resided in North Canterbury or Marlborough and had experienced the 2016 Kaikōura/Waiiau earthquake were invited to participate in the research. The project proposed to document men's stories of the earthquake for the purposes of contributing to men's personal experiences of disaster globally as well as to qualitative gender research in Aotearoa, New Zealand.

Interviews were conducted between November 2018 to July 2019, two years after the earthquake. Each interview was digitally recorded and transcribed verbatim. Field notes were taken during and after the interview to complement the interview material. Transcripts were manually coded following an accepted thematic approach to analysing qualitative data (Clark & Braun, 2006). Thematic analysis indicated that the

participants' stories of the earthquake were shaped by overlapping social and physical spaces and multiple temporalities. This article draws on process time, time-geography, metaphysical spaces and mobilities to frame the analysis of these overlapping spaces and temporalities.

Participants were encouraged to choose their preferred interview venues, which enabled them to control the physical and social spaces in which they narrated their personal experiences and facilitated their comfort and safety. One participant wanted the interview to be private out of concern for people overhearing his story. Another participant wished for the interview to take place in a café, as he did not want the interviewer seeing his house that was still "a shambles" from damage caused by the earthquake. Men's decisions to share their stories highlighted the metaphysicality and mobility of men's stories which moved from a space of silence to a space of controlled disclosure. One participant, for example, commented in correspondence prior to the interview that he would not normally partake in research. Yet, in light of the publicity surrounding mental health, he felt it was important to share his story in order to help those affected by future disasters. This disclosure highlighted the potential for unexpected benefits to arise from the research and showcased how sharing stories of trauma and disruption might help others (Liamputtong, 2007).

Although this research contributes to the wider disaster discourses, attention is given to the possible direct benefits for the rural men who generously participated in the project. The therapeutic impacts of qualitative research have been noted in the past as participants have reported experiencing satisfaction from telling their stories (Cutcliffe, & Ramcharan, 2002; Liamputtong, 2007). Similar benefits were referred to by participants in this research, as an example one participant discussed in his interview how he gained more satisfaction from talking during the interview than he did through the course of a counselling session. The therapeutic benefits of interviews may also reflect the mobility of metaphysical healing spaces as interviewees move from spaces of trauma into spaces of recovery. The interview presented an opportunity and safe space for research participants to speak about difficult experiences, which in some cases may have been silenced. In order to facilitate participant's privacy and confidentiality, pseudonyms have been used for all participants, apart from Gary who wished for his real name to be noted in the thesis and research publications. Other key ethical considerations were addressed including ensuring that all research documentation was subject to restricted access and the research received full ethical approval from the Massey University Human Ethics committee (application no. 18/13).

### **Narrating Metaphysical Spaces, Temporalities and Mobilities in Disaster**

Participants' narratives are drawn on to demonstrate how rural men's realities in a post-earthquake social environment are underpinned by multiple metaphysical temporalities and spaces. The stories discussed are presented within the themes of *culture*, *embodied spaces*, *recovering narratives of loss*, *gendered organisations in space and time* and *overlapping earthquake experiences*. These themes were identified within the interview material and are used to illustrate the mobility of metaphysical spaces and temporalities and their intersections with physical spaces in the construction of earthquake experiences and psychosocial stressors.

## Storying Narratives of Culture in Space and Time

The ways in which space and time are governed by cultural practices and beliefs may be understood as substantiating space and time as both products and processes of historical, political and social interactions (Lefebvre & Enders, 1976; Massey, 2005). Drawing on Tohorā's story, this section discusses the cultural beliefs that shape and construct meta-spaces and temporalities. During his interview Tohorā spoke about trying to prepare his community for an earthquake, here he emphasises how he drew on science to communicate the importance of preparedness:

Well, I actually got blamed for the earthquake when I walked onto the marae. The reason being at our previous meeting which was only about a week or so before the earthquake, I had mentioned...we need to be prepared, the Hope fault roughly goes every 300 years, we're overdue. It last went around seventeen hundred, and the coastline lifted by about a metre. So, we need to be getting ready for this because it's roughly on 300-year cycles. So, when I walked on the marae, "it's your bloody fault, you said it was going to happen" (Tohorā, 65-74; Māori).

Tohorā used statistical analysis to gauge the temporal dimensions of fault ruptures by situating the earthquake in the wider context of New Zealand's geographic and seismic history. His narrative highlights how natural hazard planning and preparedness is temporal and spatial in the way it relies on temporal/linear data that is historically situated in space and time. This method of statistical interpretation indicates how space and time is quantified within disaster scholarship as a means to understand natural hazards and as a method of communicating levels of risk. Tohorā's narrative is constructed through reference to technological and scientific spaces. However, these spaces also intersect with metaphysical notions of the earthquake as well as the space of the marae by prompting Tohorā to communicate the earthquake risk and importance of preparing to his community. Tohorā's concern for, and appeal to both his community and marae to plan and prepare for an overdue earthquake reflects the metaphysical social space of community. This is demonstrated in his consideration of the probability of an earthquake, how it may impact his community and how he and his community can mitigate negative consequences. Tohorā's talk accentuates Massey's (2005) theoretical perspective of space(s), as being the effect of interrelations, by illustrating the importance of people in the construction of community, and more broadly, the physical, social and metaphysical spaces of the marae. In his narrative, Tohorā constitutes multiple spaces, that all encompass social interaction. Furthermore, concern and preparation for a hypothetical earthquake accentuate the mobility and temporality of metaphysical spaces that constitute process time (Davies, 1994) in which actions and tasks are not static within a fixed temporal framework but continue, and extend across multiple temporalities and spaces.

A spiritual space is indicated in the narrative by Tohorā's reference to being blamed for tempting fate. Multiple temporalities are constituted through stipulating that earthquake occurrences are on linear

temporal cycles. However, in line with Māori cultural beliefs regarding the power of speaking things into existence, Tohorā's community perceives Tohorā's speech on preparation as initiating the earthquake. The physical and metaphysical spaces depicted in Tohorā's narrative establish how social and physical spaces intersect and shape local indigenous understandings of disaster and community experiences. Tohorā's story constitutes Massey's (2005) interpretations, that spaces and temporalities are imagined, and/or are subjectively perceived. His narrative showcases the ways culture is embedded in the understanding of metaphysics (Rose, 2004) and space, which is constituted through the intersection of physical, metaphysical and temporal spaces that govern tasks and action. These assemblages of spaces can be regarded as a meta-space that showcases a bricolage of experiences and spaces in Tohorā's overall earthquake story. The linking of spaces is further illustrated in the ways Tohorā's community regarded him as the embodiment of the earthquake through his actions not only prior to the earthquake (through preparedness messaging), but through his leadership in the response.

### **Embodied Spaces**

Feminist geography pays attention to mobility's dependency on the body within and between space(s) and time (Rose, 1993). Research indicates that individuals may experience disruption to the body (Adams-Hutcheson, 2017a) as a result of a natural hazard event including sleep disturbances (Geng et al., 2018), injury (Johnston et al., 2014) and psychological trauma (Brémault-Phillips et al., 2020). This section draws on Jack's talk to analyse the body's reaction to physical movement including how traumatic memory of the earthquake moved into new spaces in the months after the 2016 Kaikōura/Waiiau earthquake.

Jack's granddaughter wanted him to take her to the Justin Bieber concert in Auckland only three months after the earthquake. Here Jack explains how he felt when others around him started to move, causing the seating in the temporary stand to shake.

So anyway, we ended up getting tickets to Justin Bieber, so we go along to...Mt Smart Stadium and what they do is they put all this scaffolding up and they build these seats out of scaffolding and the earthquake happened in November, so this was probably about February, anyway as certain songs come on and people started clapping and perhaps standing up. Anyway, this scaffolding was like doing this

*[moves hands side to side]*

And I said there is no way in hell I can stay here for the duration of this concert, because to me this could collapse and I guess the earthquakes had put me on edge so this did actually feel like an earthquake...so after about 30 minutes we actually left our paid seats and we slightly exited the arena...So if we hadn't experienced the earthquake, I might have been a little easier in that situation (Jack, 55-64; Pākehā).

Jack chronologically reproduces his narrative and articulates his experience at Mt Smart Stadium in present time, through situating the concert in the wider temporal context of the earthquake. Although Jack was physically distanced from where he experienced the earthquake (Marlborough), when the seating at the concert began to shake, his body and mind were reminded of earthquake ground motion. Jack's experience highlights the temporal and spatial mobilities of metaphysical spaces/times where individuals are transported back in time and space through encounters with similar mobile and temporal spaces. The public space of Mt Smart Stadium became unsafe only to Jack. His narrative demonstrates the earthquake's spatial and temporal reach as well as the scale of intensity, as the body simultaneously constitutes a metaphysical and physical space of trauma where the earthquake is relived. Similarly, to embodied spaces, movement of physical structures, such as the erected seating can be regarded as metaphysical through occupying space and acting as a reminder of the Kaikōura/Waiiau earthquake.

Jack's account demonstrates the spatial dimensions of disaster in which embodied trauma follows spatial and temporal trajectories across scales (Massey, 1994), which also highlights the relationship between time and space, and the dependence of social interactions for the formation of space(s) (Massey, 2005). Jack's narrative infers metaphysical movements between metaphysical spaces of recovery, trauma and distress, as he proceeds initially from the space of recovery to spaces of relived distress, showcasing a meta-space of trauma. These spaces overlap with social spaces (the audience) and physical space (the arena). Jack shifts to a space of distress within a short temporal period of being at Mt Smart Stadium. It had only been three months since the earthquake and fear was still generated by uncontrollable movement of his body. Davies' (1994) principles of process time offers a way to explain how individuals move within, and between metaphysical spaces that are not fixed by linear time. Jack's experience at Mt Smart Stadium is shaped by metaphysical spaces of past events, movement and trauma. Recovery is therefore not a fixed point in time that is considered an objective to reach, but rather recovery is a process that requires recognition and management of multiple metaphysical and physical spaces that are continually reconstructed by the Kaikōura/Waiiau earthquake. The interconnected theoretical lenses of metaphysical mobilities, spaces and temporalities can extend disaster risk reduction understandings of recovery at the individual level, by capturing the manifestations of mental and physical trauma in post-disaster space(s), particularly trauma associated with significant losses.

### **Gary's Story –Recovering Narratives of Loss**

Two people died during the Kaikōura/Waiiau earthquake, one of which was Gary's partner Jo. Gary has given permission for his story to be reproduced in this article in order to correct the record regarding Jo's death. His personal story is comprised of coping mechanisms that assist in navigating his loss as well as recovery from additional challenges stemming from the earthquake. Gary's story detailed in this section, are constructed by multiple, intersecting, external and internal metaphysical and physical spaces and temporalities. They detail the multiple projects that he carries out to facilitate recovery, and how grief complicates sets of understandings about space and time post-disaster. Here Gary explains how Jo died:

No noise warning or anything, it went up and you couldn't stand up, you went up in the air. I got thrown through the door and she got thrown into the post...and smashed her head...I thought shit, I got up to try and run and I kept falling over, I finally got out on the ground...I was outside on the ground, lying on the ground just bouncing up and down and I thought 'when is this going to stop?'...it kept on going and I yelled out to Jo but couldn't hear me because of the noise...And I'm yelling out "Jo, Jo," what the bloody hell, where's she gone? I reversed [the car] back out and put the lights on into the house. And there she was in the doorway...Feet up against the stairs and her head was on the ground. And I thought 'what the hell?'...And I said "Jo, Jo you alright?"...And I tried to find a pulse, and I could feel something I thought so I tried to give her mouth to mouth then, you know but nothing was happening I didn't know if I was doing the right thing (Gary, 65-74; Pākehā).

Gary describes the earthquake in chronological order reflecting time as linear. This memory is a meta-space, shaped by an accumulation of spaces that contributes to constructing his earthquake experience. During his interview, Gary spoke about how the media falsely described Jo's death (NZ Herald, 2016), hurting and angering him. He stated that some people did not know anyone had died as a result of the earthquake. In the talk below, Gary explains how, two years on from Jo's death, he tries to ensure that his and Jo's story is told accurately.

Yeah, I want everyone to know because it seems to have been forgotten pretty quickly...I go out of my way to tell everybody...and some people say they didn't even know anyone died in that earthquake. "Oh, you're the one whose wife died of the heart attack?" This is at the dog park! We go to the supermarket or we go somewhere, people don't even know that people died in the earthquake...But I tell *everybody* [emphasised], people just walking down the street, come here I want to tell you something [laughs] just about to that extent. If there's an in. First of all, that I lost everything in the earthquake. And blah blah, and I tell the story. I've got it down to a fine art the exact words, my story. That's my way of dealing with it...it just gets it off your chest and just letting people know the true story. Just so her memory doesn't get lost (Gary, 65-74; Pākehā).

Gary's account speaks to the importance of committing time and space to telling his story of loss. He continually reconstructs his story through the reconstitution of time-space evidenced in his identification of physical spaces (the supermarket, the dog park, the street and including the research interview) where he re-tells his story. The metaphysical and temporal spaces of grief and multiple earthquake experiences meet with physical spaces within his narratives. The media is an institutionalised meta-space, consisting of an assemblage of static and dynamic spaces (e.g. publishing house buildings, editors/reporters,

online reporting, spoken words). This meta-space, comprising of metaphysical spaces that include the incorrect reports of Jo's death (NZ Herald, 2016; van Beynen, 2016), intersect with the meta-space of Gary's earthquake experience which has hindered his recovery. The media meta-space has become so dominant in Gary's life that he works to correct the false reports that contribute to shaping his reality. It could be argued that the media has a responsibility to share information which contributes towards shaping and upholding a shared sense of calendrical, linear time (Anderson, 1991). In the aftermath of the earthquake, audiences are brought together as an imagined community (Anderson, 1991) through the replication of Jo's passing in digital and printed mediums across physical and metaphysical spaces. It can be suggested that Gary wishes to disrupt this collective understanding of Jo's passing. In addition to Gary pushing against the media's temporal framework, consisting of a fleeting coverage of events, he attempts to deconstruct and reconstruct the temporally situated narratives to form a shared understanding of Jo's death across metaphysical and physical spaces within Aotearoa, New Zealand. In opposition to the linear timeline used by the media, Gary operates within process time, frequently returning to the past in order to reconstruct the record in the present.

Grief is prevailing in Gary's story, and constitutes a metaphysical space evidenced in his disclosure of talking about Jo to avoid the loss of her memory. The act of talking about her also occupies a metaphysical space of ongoing recovery illustrated through talking as a means of coping. Gary draws on past spaces and temporalities in the form of memories and brings them into the present, where they contribute to shaping his realities in post-earthquake spaces. His remembrance of Jo, and his commitment to continue to tell stories about her, illustrates how assemblages of memories are meta-spaces, that are tied to temporal periods and geographic spaces of the past and present. It is unmistakable that grief in this instance is a temporally mobile space. Despite the fact that Jo died in the early hours of 14<sup>th</sup> November in her Mt Lyford home, situating her death in a static time-space, her passing is reconstituted in multiple spaces and temporalities by virtue of Gary's narrative. His storied memories constitute the intersections between the physical site of the home, the time of the earthquake (12:02am) and Jo's passing; these intersections establish the entanglement of metaphysical and physical spaces and temporalities. This entanglement highlights the mobility of loss (spaces and temporalities), as grief moves across multiple physical and metaphysical spaces and temporalities which generates a meta-space. To illustrate the mobility of grief, the following narrative is used to describe how grief is embodied which facilitates a (re)construction of mourning. An argument is made to propose an affiliation between grief and process time.

Just couldn't get to sleep at night and it was the same dream that woke me up every morning or woke me up during the night, it stopped me from getting to sleep...I could feel her, and that's part of my dream, I could feel her hitting me on the back on the way as she fell down (Gary, 65-74; Pākehā).



The recurring dream disrupted the temporal structure of sleep and awake hours, which reflects how trauma and embodied metaphysical spaces, in this instance, the dream, moves between the two temporal spaces of night and day. The metaphysical space of trauma that is constituted as a recurring dream, can be situated in clock-time (Hägerstrand, 1970) evidenced by the recorded time (14/11/16 12:02am) of when the trauma initially occurred and the physical spaces (North Canterbury) where trauma was experienced. The dream can also reflect process time (Davies, 1994), demonstrated in the ways the vision disrupts other metaphysical spaces such as sleep, and how it is repeatedly linked to the time-space of when the trauma occurred. It can be argued that it would be impossible to account for the hours or minutes that the dream occupies, the effects, such as disrupted sleep, and recurring thoughts of the vision (Davies, 1994) and therefore it is important to recognise how meta-spaces, like trauma, can unintentionally move into the day-to-day lives of individuals.

As substantiated in Gary's experience of reliving trauma, trauma can be mobile and move across and through spaces and times, prompting the re-experiencing of psychological pain and distress through the body in any space and at any time (Coddington & Micieli-Voutsinas, 2017). Like Jack's experience at the concert, Gary experiences what Coddington and Micieli-Voutsinas (2017) call outward aftershocks of trauma where trauma is (re)produced and rebounded through time and space from the initial moment of the traumatic event, it is also complex and does not necessarily follow a linear path. This reproduction is embodied, as the body acts as a space in which the trauma is recreated, and as Adams-Hutcheson (2017b) contends, bodies have no control in how and when experiences are retrieved and relived.

Leys (2000) and Coddington (2016) characterise trauma as constructing unexpected and uncontrollable flashbacks to the past which defy geospatial and temporal logic. Distressing events leave marks on and in the body, including in the space in which the event took place, thereby changing feelings and relationships with that space (Coddington & Micieli-Voutsinas, 2017). Gary explained in his interview: "I went through a really bad patch; I didn't want to go back there [the house where Jo died]. Every time I'd walk through the door I'd think of Jo." Stating that he went through a 'bad patch' implies that there was a particular spatiotemporal moment that was particularly challenging for him. The house is a physical space, but the memory of what happened there can be understood as being a metaphysical space that crosses over into the physicality of the home, creating a meta-space, shaped by multiple overlapping spaces. Analysis of Gary's talk suggests that he did not want to engage with the metaphysical space that was shaped by the painful memory. His experience returning to the house further illustrates the unity of time and space, which by analysing space through the lens of metaphysics, highlighting spatial mobility, accentuates the significance of time, in contrast to silencing it (Massey, 2005). The complexities pertaining to the unity of space and time, including the intersections between home (physical and metaphysical space) and the earthquake will be explored in more depth in the following section by drawing on the socialisation of gender to demonstrate the role of social relations in the construction of metaphysical spaces.

## The Organisation of Gender in Space and Time

Researching gender roles within a disaster is a well-researched area that highlights how within Western European society women's work is often confined within private spaces while men's roles are commonly undertaken within the wider community (Fothergill, 2004; Morrow & Enarson, 1996). Gender identity can be referred to as constructed masculine and feminine meta-spaces, formed by contextual ideas about gender performativity and roles, that shape individual disaster experiences. Lewis's and Oliver's accounts of the immediate aftermath of the earthquake reproduced below illustrate the notion of gendered meta-spaces.

Both men talk about driving into low lying coastal areas in anticipation of a tsunami to assist with checking on family, community members and helping with evacuation. In their narratives, their comments that before getting into their vehicles, they wanted to ensure their partners and children were safe, speak to how metaphysical spaces of family and response intersect with men's socialised gender roles that are intrinsically linked with notions of masculinity (Tyler & Fairbrother, 2013a,b).

Our house was damaged and so getting my partner and my children out of the house and we went to a friend's place which was at much higher ground...So I made sure my family were heading up that way, so I knew where they were (Lewis, 45- 54; Pākehā).

Who's at home looking after all the families and our kids and giving us permission to go and do what we need to do, ...Well I couldn't have a clear mind especially 20 minutes after leaving home. If I wasn't satisfied that my wife was doing, getting together with the neighbours. I couldn't have functioned well (Oliver, 45-54; Pākehā).

Family is a metaphysical social space that could be a constraint on action if Lewis and Oliver were not confident that their families were safe. In this instance, the metaphysical space of family shapes their decision to respond. It could be inferred from Oliver's statement, that by women taking care of children, provides men with the spatial and temporal mobility "to go and do what [they] need to do." Oliver's talk reflects on how people's disaster time-spaces can be relational to, and dependant on social relations and gender roles (Davies, 2001; Massey 2005; Parkinson & Zara, 2016).

Oliver's quote indicates the metaphysical spaces of morality and masculinity overlap and shape, the space of family and meta-space of response. Men craft their own time-spaces in relation to notions of masculinity as demonstrated by Oliver and Lewis partaking in gendered response roles in the earthquake disaster that are informed by Western European normative values (Fothergill, 2004; Parkinson & Zara, 2016). Oliver and Lewis's narratives manifest process time in the ways multiple temporalities and spaces are simultaneously moving, as evidenced in the temporal immediacy in the earthquake/tsunami response and their reflections in the subsequent months following the earthquake on their decision to respond.

Responding to a tsunami threat is dependent on quick decisions and actions which leaves little time for an individual to process potential consequences. In the abstract below, Lewis reflects on the decision he made to leave his family and drive into low lying coastal areas.

A good friend of mine...we both went into town and we had a discussion afterwards you know, actually the decision we made to do that wasn't a sound decision because we put ourselves at risk...The reality is that we probably should have waited several hours and then made a move. So that's something I've actually thought about quite a bit afterwards and I remember if it does happen again, we don't know what's really, and it's pitch black too remember. So that's something we need to take into consideration next time (Lewis, 45-54; Pākehā).

The fact that Lewis discusses how he and his friend had spent time considering their decision implies possible metaphysical spaces of contemplation, learning and regret, inferring their past choices constitute metaphysical spaces that continue to move into future spaces. Reviewing his comment, it may be suggested that driving into the tsunami risk zones was a bad choice, and yet, now he would question making the same decision again. His talk could also be interpreted as indicating that immediately after the earthquake, the metaphysical space of urgency and response was dominant, whilst as time has passed, that space has been reconstructed as a metaphysical space of reflection. Thus, the decision to drive to the coastline was constructed as rational in the initial moment when the shaking ceased. However, time has provided perspective in which Lewis indicates that his choice was actually irrational and embodied the metaphysical space of risk.

Lewis and Oliver have moved from an unknown space to a known space comprising of earthquake experience. Both shared storied experiences that showcase how notions of masculinity and particular gender roles play out in disaster response. Their stories support the bodies of literature on men and disaster that discuss how men undertake risks in disasters (Parkinson & Zara, 2016). Lewis's narrative speaks to the prospect and anticipation of future earthquake events in Aotearoa, New Zealand. The likelihood of experiencing multiple earthquakes was canvassed in several of the men's narratives and will be discussed in more detail in the subsequent section.

### **Overlapping Earthquake Experiences: The Canterbury and Kaikōura/Waiiau Earthquakes**

New Zealand has experienced significant seismic events including the Canterbury earthquake sequence (2010-2011), the Seddon earthquake (2013) and the Kaikōura/Waiiau earthquake (2016). Several participants spoke of enduring more than one of the earthquakes and how they cope living in seismic environments. In this section, Edward's story, which details the experience of living through two earthquake events, is analysed to illustrate how multiple spaces relating to two separate disasters, intersect and overlap in his everyday realities.

Before the interview, Edward disclosed that he and his family moved from Christchurch following the February 2011 Canterbury earthquake and subsequent aftershocks. Their business had significant damage and liquefaction, they were in debt to their bank and Inland Revenue and they have on-going issues with insurers nine years on, resulting in financial hardship. At the time of interviewing, Edward was still repairing

their commercial property in Christchurch. Edward and his family had experienced substantial disruption to their lives which had influenced their decision to move two hours North of Christchurch and an hour south of Kaikōura in the hope of evading earthquakes. Not long after they moved, the Kaikōura/Waiau earthquake struck, resulting in damage to their new home. Throughout Edward's interview, he moved between both earthquake experiences. His stories of earthquakes continue to be shaped by challenges, as evidenced in speaking about his business in Christchurch below

We were asked to do... make safe repairs on [the business] and I did a lot of the work myself with a friend...We got that work done, we done it at night because we were under pressure to keep the place open as we could, and we managed to do that, but it was a struggle. Because every night you'd deconstruct then reconstruct for the next morning. Working through the night. It went on week after week, it was tedious really...But the thing was [the insurance] decided...that they're not going to pay. It was about \$50,000 worth of a work (Edward, 65-74; Pākehā).

In addition to insurance stresses following the 2011 Canterbury earthquake, Edward is facing similar disputes post-Kaikōura, he states: "we've got contents insurance for about \$8,000, and they won't settle... We've not got drinking water at home, haven't for over two years. We have to bring it in from Christchurch in containers." Edward discloses some of the challenges he and his family faced in the aftermath of both disaster events which whilst being considered 'over,' produced ongoing difficulties with no certain conclusion. His time-space is continually restructured by the Canterbury and Kaikōura/Waiau earthquakes in multiple temporalities and mobilities, exemplified in the routine transportation of water from Christchurch to their rural property 130kms away. This time costly work is a consequence of delays pertaining to the institutionally slow processes within their insurance company, which have resulted in conflict in regard to the delay in an insurance pay-out to cover damage repair costs for their water tank. Throughout his interview Edward references both earthquakes when describing multiple temporal and spatial mobilities across metaphysical and physical spaces pertaining to disruption. In part, like Gary, his recovery has been shaped by institutional meta-spaces. While Edward's objective has been to repair his business property in Christchurch and home in Rural North Canterbury, it is evident that this process is not temporally linear. Process time (Davies, 1994) is reflected in Edward's accounts, as he attempts to navigate the physical and meta-spaces of response and recovery, over which he has little control. Hägerstrand's (1970, 1985) notion of time-geography can also be drawn on to illustrate how ongoing processes and insurance bureaucracy create constraints on the physical and metaphysical spaces of recovery. The meta-space of recovery is shaped in this instance by metaphysical spaces of insurance and financial restrictions.

The meta-spaces of recovery following each earthquake intersect while Edward simultaneously attempts to navigate the metaphysical and physical spaces of work and home. The space in which property repairs are negotiated constructs metaphysical spaces which are created in relation to time; demonstrated in the ways in which property damages and financing repairs occupy significant and overlapping times and spaces. In other words, the metaphysical spaces that construct the meta-space of recovery have consumed substantial amounts of time in Edward's day-to-day life post-earthquake. Edward's interview talk also reflects gendered divisions of labour between himself and his wife. Edward was responsible for repair labour and the organisation of finances, while his wife took primary responsibility for caregiving. Their roles align with Western European gender roles associated with heterosexual relationships, that are commonly enacted during post-disaster reconstruction (Fothergill, 2004; Morrow & Enarson, 1996). The division of labour showcases the ways in which identities contribute to the construction of spaces(s) and place(s) (Massey, 1991, 2005). In the context of Edward, and his wife, their time-space and experiences of the Kaikōura/Waiiau earthquake differ, notably in one way, as a result of normalised Western ideas about gender roles.

Coupled with the demands of physical and metaphysical work dealing with multiple damaged properties, Edward and his wife had to manage the health of their son who has Asperger's syndrome and had experienced five seizures following the Canterbury earthquake sequence. Edward's experiences demonstrate how metaphysical spaces of health and family are constituted within his earthquake story. Both earthquakes are situated separately in clock time, however, continue to intersect in Edward's day-to-day reality. The earthquake events can be regarded as meta- and temporal spaces that consist of multiple metaphysical spaces and temporalities. Edward's story exemplifies how spatial and temporal consequences of the earthquakes continue to impact his day-to-day existence.

## **Conclusion**

Approaching space solely as physically bounded and quantifiable fails to recognise the embodied relationship between social structures, human interaction and differences in space and time. The principles of time-geography, while helpful to the discipline of Human Geography, does not adequately explain the complex multiple spaces and temporalities of human experience (Rose, 1993). In a similar vein, disaster management and scholarship focus on fixed timeframes and physical spaces whilst neglecting the long term unstable day-to-day challenges of individuals and communities. This article has drawn on conceptualisations of multiple physical and metaphysical mobilities, spaces, meta-spaces and temporalities to provide an understanding of the complex processes and interactions that shape the experiences of those affected by disaster.

Extracts of rural men's stories reproduced in this article, exemplify the ways in which disasters disrupt and shift life trajectories. The theoretical perspectives of metaphysical spaces, time and mobilities illustrate the multiple physical and mental projects that individuals manage in order to maintain well-being in their post-disaster environment. Many participants continue to deal with daily challenges two to three years after the earthquake, and in Edward's case, nine years following the Canterbury earthquake. The

mobility of rural men's experiences was highlighted through examining how multiple metaphysical mobile temporalities and spaces underscored their narratives. Massey (2005) calls this multifarious of spaces, "sense of contemporaneous plurality" (p. 31). People do not have identical experiences and trajectories (Massey, 2005), and as this article demonstrates, spaces and temporalities shift, and can reconstruct, highlighting the unfinalised nature of space(s). Using Doreen Massey's (2005) perceptions of space further supports understandings about metaphysical spaces. Massey (2005) presents an understanding of space(s) in the context of social phenomenon, human behaviour and action (interrelations) and the mobility and temporality of space as ongoing, which echoes metaphysics, and the analysis in this article which extends thinking on space in Geography. It is the multiplicity of space that also requires further consideration in disaster risk reduction policies and practices in order to capture the overlooked affects and challenges generated from disasters.

Analysis of participants' talk illustrates that disasters constitute social conditions that are unfinalised in time and space, move to intersect with physical and metaphysical space(s), and act across scales and temporalities. An argument is advanced, that complex embodied, financial and psychosocial spaces which encompass stressors, may hinder recovery, damage well-being and change how mobility, time and space are perceived. Taking metaphysical elements into consideration when developing and conducting research can enhance understandings about how earthquake-induced stresses manifest in the day-to-day realities of those affected. This research also illustrates how problematic spaces and temporalities may pose challenges for rural men working to navigate their post-disaster environment and recovery.

# 7

## Towards an inclusive reading of gender and disaster

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*“A richer, more dynamic and vastly more human portrait than currently exists of men in disasters is possible”*

*Elaine Enarson & Bob Pease (2016, p. 11).*

This thesis contributes to building awareness of the ways in which rural New Zealand men are affected by disaster, and how masculinities shape men’s disaster realities. The aim of the doctoral research was to consider how rural men’s experiences of the Kaikōura/Waiiau earthquake could contribute to disaster policy and practice. In order to achieve this aim, the research set out to document rural men’s experiences of the 7.8 magnitude 2016 Kaikōura/Waiiau earthquake and explore their strengths and challenges during and in the aftermath of the disaster. The individual stories reproduced in this thesis were presented as a means to understand the gendered implications of disaster experiences. Using theoretical perspectives from Political Philosophy, Sociology and Geography, a critical examination of the gendered social constructs that informed response and recovery was achieved. Central arguments presented, relate to the ways in which men construct meanings of disasters in relation to localised sets of understandings about hegemonic masculinity. Each component of the analytical chapters contributed to a detailed and contextualised understanding of rural men’s realities of the aftermath of the Kaikōura/Waiiau earthquake.

This concluding chapter brings together features presented in the thesis, including discussions on the construction of knowledge, the theoretical and methodological contributions, followed by a synthesis of key outcomes that were offered in research articles in Chapters Four, Five and Six. This research overview is presented in conjunction with a commentary about how the aims and objectives were achieved. Attention is given to the final objective that considers how men’s personal meanings of the Kaikōura/Waiiau earthquake may be implemented into New Zealand and international disaster policy and practice. The significance of the research, and contribution to the disaster literature is also addressed here. Concluding this chapter is a summary of the limitations of the doctoral study and suggestions for future study.

## **Constructing Ways of Knowing**

An argument was advanced throughout the thesis that masculinist approaches to disaster risk reduction have dominated research practices and outcomes. Masculinist methodologies and methods have tended to marginalise subjective knowledges. The theoretical concept of the gendered body politic, presented in the published literature review in Chapter Two, highlighted how disaster management and scholarship adheres to masculinist ways of knowing. Disaster policy and practice is underpinned by the male body politic, producing biases that shape understandings about disaster response and recovery. An argument was made that the voices of those excluded from the gendered body politic, including women, indigenous people, gender and sexual minorities and some men, become marginalised and excluded in disaster research practices and in the development of disaster policies.

A feminist research methodology was adopted for this doctoral study investigating rural men's stories of the Kaikōura/Waiiau earthquake, because feminist ways of knowing seek to centre marginalised voices in research practices. As demonstrated within this thesis, although men's voices dominate disaster narratives, personal accounts of their disaster realities can be silenced due to sets of understandings of hegemonic masculinity that encourages stoicism and autonomy. Applying a feminist methodology with a feminist epistemological framework, enabled spaces for men to tell their personal experiences of disaster, and facilitated an examination of the gendered organisation of rural men's post-disaster realities. Through drawing on human and feminist geography perspectives in research Articles Two, Three and Four, further understandings of the gendered elements and subjectivities of rural men's disaster experiences were achieved, by analysing the social and built environments in which the participant's stories were situated. The taken-for-granted behaviours, and social structuring of activities were captured through providing attention to the *habitus* that underpin gender identities, in particular, hegemonic masculinity embedded in place. Examples provided in the thesis, of men who voluntarily responded and fixed infrastructure, demonstrated how men's actions were inherently tied to sets of understandings of a form of New Zealand rural hegemonic masculinity. In brief, attending to the gendered structuring of experiences, facilitated by a feminist methodology, informed understandings about how rural New Zealand men respond to, and cope following a disaster event in Aotearoa New Zealand.

The use of feminist geography in this thesis, enabled an examination of meanings and interpretations of space and place in post-disaster landscapes. Through a feminist geography lens, coupled with a feminist methodology, the multiple emotional challenges that continue to shape participant's daily reality were explored. Capturing the unseen accounts of disaster experiences, such as dealings with grief and distress, highlights some of the ways in which recovery from disaster can be hindered.

Feminist methodologies constitute one avenue for facilitating an in-depth examination and analysis of the qualitative data. For the purposes of this research, applying a feminist methodology and epistemology enabled constructing knowledge pertaining to the subtleties, subjectivities and complexities, situated in place, space and time that shaped, and continue to shape rural men's daily realities after the Kaikōura/



Waiiau earthquake. The research has demonstrated that subjective accounts of disaster risk, response and recovery can capture the impacts of natural hazards on micro scales across space(s) and time. As evidenced within the thesis, paying attention to personal realities of disaster in space and time, offers ways to understand the complexities and fine details of response and recovery. This doctoral thesis contributes to the growing area of gender and disaster, as well as qualitative research on disasters that centres personal accounts in understanding the impacts of disasters.

## **Overview of Research Outcomes**

### **Moving in, and Across Spaces and Temporalities**

The doctoral thesis set out to extend understandings of rural men's personal accounts of disaster. Close attention was given to meanings associated with the situated, mobile, metaphysical spaces and temporalities identified within men's stories of the Kaikōura/Waiiau earthquake. Metaphysical spaces were theorised as the unseen projects, activities and thoughts that are carried out or/and managed by participants. Mobility referred to the ways in which metaphysical spaces move between, and across physical and social spaces. Process time (Davies, 1990, 1994) was also adopted to further develop the idea of metaphysical spaces, through exploring how disruption caused by, and recovery projects generated from the earthquake, are not finalised and cannot be fixed within calendar time. Rather, disruptions are indeterminate elements situated within overlapping temporalities. Temporalities are also mobile and can move across spaces, which was highlighted in Chapters Five and Six in the ways in which trauma and emotion re-emerged within multiple social and physical spaces.

Recognising mobility of time and space showcases how disaster recovery is not a fixed point in time that can be bounded by a 'phase,' commonly seen in disaster policies (NEMA, 2019; UNDRR, 2015b). Supporting this analysis, and presented in Chapter Five, the study drew attention to men's emotional earthquake trauma that continually manifested across multiple physical and social spaces (including the research interview) several years after the earthquake occurred. This re-lived trauma beyond the initial space(s) and recorded time of the earthquake, emphasises the event's impacts on the micro-level that repeatedly shaped men's day-to-day realities post-earthquake.

Article Four presented in Chapter Six, demonstrated how past and present spaces and temporalities intersect, and it is at these intersections that detailed understandings of disaster realities can be captured. Specific impacts of the Kaikōura/Waiiau earthquake were illustrated in Jack's account of attending the Justin Bieber concert in Auckland. Jack's anxieties about movement, that he perceived to reflect ground motion, illustrates the convergence of diverse spaces and temporalities and the process in which trauma can re-emerge within the body. These accounts of re-lived trauma echo earlier research on the embodied impacts of earthquakes (Adams-Hutcheson, 2017a,b), and also extend current knowledge by interrogating the manifestation of gender in embodied experiences in post-disaster spaces. Examining embodied spaces, and the ways in which gendered bodies continually respond to disasters can be helpful in understanding the long-term effects of natural hazards on people.

The intangible relationship between bodies, and metaphysical spaces was also seen in Gary's narrative of loss reproduced in Chapter Six. Gary's talk about losing his partner Jo in the earthquake, illustrated how grief and multiple problematic features of the earthquake hindered his recovery. As a way to produce a sense of healing, he draws on the past (memories as metaphysical and temporal spaces), to retell personal narratives in the present. This mobility of personal histories offers an understanding of the ways that disaster adversities and recovery are guided by a series of convoluted metaphysical spaces and temporalities. Fundamentally, personal disaster experiences are shaped by multiple, and in some cases, unseen challenges and experiences that individuals may, or may not, actively manage. Examining challenges through the lens of mobile temporalities and metaphysical spaces can assist in developing insights into the impact of disasters on well-being. Furthermore, metaphysical theoretical frameworks can inform understandings on the implications of cascading disaster events at the micro-level of individual experience.

Men's talk illustrated dealings with several natural hazard events, notably the Canterbury earthquake sequence in 2010-2011, the M6.5 Seddon earthquake in 2013 and the M7.8 Kaikōura/Waiiau earthquake and tsunami in 2016. An analysis of interview transcripts provided an opportunity to learn from participants' realities of surviving and coping with a series of natural hazard events. Edward detailed how he navigated residential and commercial insurance as well as property repairs resulting from the Christchurch and Kaikōura/Waiiau earthquakes. On several occasions within his interview, Edward talked about the Kaikōura/Waiiau earthquake in relation to the Canterbury earthquakes, illustrating overlapping physical, social and metaphysical spaces that he continually negotiates. As George articulated in Chapter Five, the impacts of the Kaikōura/Waiiau earthquake were another thing to carry. These multiple and in some instances, increasing tasks complicate and hinder recovery. An argument can be advanced, particularly in relation to the risks of climate change, that awareness is needed of how individuals and communities deal with multiple natural hazard events in close proximity. It can be suggested that, by recognising and learning how individuals contend with a succession of calamities, detailed knowledge can be gained on the well-being, strengths and challenges of those impacted.

Underpinning the research analysis and men's earthquake stories, were sets of understandings about New Zealand rural hegemonic masculinity. Men reported undertaking typically masculine roles such as repairing roads, fixing plumbing and checking buildings in the community, while women attended to childcare and welfare needs. These accounts of typical Western European gender roles reflect the literature on women and men's distinct undertakings in disaster (Akerkar & Fordham, 2017; Eriksen et al., 2010; Fordham & Ketteridge, 1998; Fothergill, 2004; Whittaker et al., 2016). Using the theoretical lens of metaphysical spaces and temporalities, the analysis illustrated that men's stories of the earthquake were shaped by an articulation of multiple mobile temporalities and spaces that informed a gendered response and recovery. Lewis and Oliver's account of the hours after the primary shaking ceased, evidenced how hegemonic masculinity informed the metaphysical spaces and temporalities that they encountered. As detailed in Chapter Six, both men moved into tsunami zones to help with evacuation, yet upon reflection they determined that it was a bad decision because it put them at risk. Risk taking is associated with men

within the disaster literature (Alston, 2017; Bradshaw, 2016; Fothergill, 2004), therefore it was not unexpected that enacting risky behaviours would be identified within the interview material. Using their experience in responding to the tsunami threat and reflecting on their decision to put themselves at risk, Lewis and Oliver later considered that in the event of another earthquake, they probably would not proceed into low-lying areas. In this context, men's time-space was crafted by two sets of understandings of masculinity. One associated with action and risk-taking, and the other shaped by men's role as fathers, and ultimately a protector. In a situated spatial-temporal instance, that comprised of awaiting a tsunami, the men made decisions, which align with sets of understandings about gender performativity and values associated with hegemonic masculinity, that put them at risk. While heroic actions such as voluntarily responding to a tsunami threat may constitute strength, some participants, by reflecting on their choices, indicated that they had taken too great a risk. Chapter Six discusses how analysing the spaces in which precarious decisions are deliberated and made can contribute to current understandings of disaster risk, response and recovery, through acknowledging how evolving metaphysical spaces may inform individual decisions in relation to disaster responses and recovery in the future.

### **The Role of Place and Masculine Identity in Disaster**

Men's narratives were embedded in place and sets of understandings about rural hegemonic masculinity in New Zealand. Participants' experiences of the Kaikōura/Waiiau earthquake were constituted through ideas about masculine identity and their sense of place within the South Island and New Zealand. An analysis of participants' narratives in Chapters Four and Five was underpinned by theoretical discussions of *habitus*, *doxa*, *bodily hexis* and *capital*, that showcase earthquake experiences as primarily shaped by fields and place. The application of fields as a metaphor for place presented a unique perspective on the social and cultural impacts of a significant natural hazard event. The Southern Man as a field, inherently embedded in the broader field/place of the South Island, governed how participants reacted and responded to the 7.8 magnitude earthquake. Men employed multiple forms of capital to facilitate recovery for themselves and their communities. Participants drew on shared understandings about valued rural masculine behaviours to alleviate stressors within the community. Sense of place and sense of community became a salient stimulus, which prompted men to attempt initiating a return to a form of normality.

Challenges noted within men's stories in relation to the earthquake are understood through the field of masculinities research. Conflicting masculinities were a space of concern for men. In this instance, different masculinities were shaped by dissimilar forms of capital as well as *habitus* within place. In Chapter Four, contrasts between different forms of masculinity were illustrated through tensions between NCTIR workers and locals and in the example of how civil defence personnel utilised institutional capital associated with the city to gain control of the post-disaster field. A hierarchy of masculinities formed within the township of Kaikōura resulting in strife between residents and contract workers which problematised local post-earthquake spaces. In some instances, the field of rural masculinity was undermined by urban masculinity, which complicated local men's recovery. In this thesis, Alston's (2017) findings, that men feel pushed out

when outside help takes over management of a disaster response, is extended by providing detail on how sets of understandings about differing masculinities underpin these tensions. Men continually reconstruct and imagine spaces as places that represent their identity (Massey & Jess, 1995), and therefore the local *doxa* and *habitus* within social fields, informed the participants' sense of place and in turn their recovery. Thus, within this thesis, attention was given to how challenges to rural hegemonic masculinity disrupted men's sense of place and subsequently their healing.

Examining the place of landscape in men's talk in relation to the Kaikōura/Waiiau earthquake supported earlier geography work on the intricate relationship between the environment and recovery (Block et al., 2019; Cox & Holmes, 2000). This doctoral research extends this area of scholarship by exploring how men's sense of place within the New Zealand rural landscape governed their experiences and subsequently, their recovery. In some instances, men formed renewed respect for the South Island landscape, in other accounts, men's sense of place was disrupted by the changes in the landscape. Ultimately, a recommendation is advanced that when analysing disasters, attention should be paid to the intersections of physical and social spaces and how these changes shape the degree to which people are impacted by natural hazard events.

### **Placing Men's Emotions in Disaster**

How men construct meanings of the Kaikōura/Waiiau earthquake and negotiate their realities within social and physical spaces/places was understood through using emotional geographies coupled with sets of understandings about masculinities and Bourdieu's ideas relating to *habitus* and bodily *hexis*. Men perceived silencing emotions and trauma as a form of strength. As highlighted in this thesis, emotions constitute cultural and social practices that are identifiable in the ways men enacted silence as a mechanism for sustaining or aligning with a form of New Zealand rural hegemonic masculinity. Adhering to values of this hegemonic masculinity, created additional work for men in regard to managing their emotions. The doctoral study findings support the literature on men and disaster by showcasing similar accounts of men who actively employed strategies to avoid displaying emotion. Similarities can be drawn between Zara et al. (2016), Parkinson & Zara (2016) and this doctoral research, that despite men's efforts to conceal signs of distress, men continue to experience and actively manage different forms of emotion years after the disaster event took place. Some research participants within this PhD study believed that embodying emotion would obstruct an effective response and recovery. The study also expands current understandings of men and emotion (Dominelli, 2020; Labra et al., 2018; Parkinson & Zara, 2016; Zara et al., 2016) in disaster by situating men's stories in the broader context of place and providing an examination on how place shapes sets of understandings about masculinities.

Men continually attempted to align their emotional responses with their impressions of a form of New Zealand masculinity through minimising the display of the earthquake's effects on body and mind. Men's post-disaster realities are therefore complicated by attempts to adhere to valued practices relating to a construction of rural New Zealand hegemonic masculinity, despite experiencing emotional and embodied reactions to the earthquake. Yet, in some cases it was evident that men purposely ignored

traditional masculine roles in order to undertake caring roles within the family. As described in Chapter Five, Dale did not volunteer within the community and assist with the clean-up, instead he stayed at home with his children. In this instance, Dale was aware of the expectations of men in a disaster and felt guilty for not undertaking such tasks. Nevertheless, he prioritised his duty as a father and protector. Although it can be argued that caring roles can be valued in relation to masculinities, it can equally be suggested that they align more with a 'softer' form of masculinity.

A 'hard' masculinity, such as The Southern Man, demonstrates investment in sustaining particular stoic public performances which may be challenged in times of disaster. Therefore, analysing men's personal accounts of the Kaikōura/Waiaiu earthquake through the lens of hegemonic masculinity and Bourdieu's theory of *habitus* and bodily hexis provided an opportunity to examine the unseen complexities of disasters on men. As discussed, men were profoundly affected by the Kaikōura/Waiaiu in multiple ways. The changes in men's behaviours and emotions post-earthquake can be attributed to embodied responses to extreme ground motion. Yet, there were clear contrasts amongst participants' interview extracts. In some instances, men that were interviewed, maintained a stoic presentation regarding displaying distress, and their choice of language included phrases such as "get on with it", "put it to the back of my mind" and "keeping busy", which indicated strong references to a form of rural hegemonic masculinity. However, in other examples, participants spoke openly about managing emotions and distress evoked by the earthquake. In that sense, men's narratives constituted a nexus of insights and understandings of the multiple ways that men cope with adversity and the differences of experiences between men.

Within Chapters Four, Five and Six, participants' voices highlight the ways in which men attempted to manage multiple challenges in the subsequent days, months and years following the Kaikōura/Waiaiu earthquake. Difficulties comprised of emotional and physical demands that are constructed as metaphysical spaces, which participants had to actively manage. In some cases, additional labour created by the intrusion of external tensions, such as the media, complicated insurance processes and external contract workers, disrupted recovery. Attention to intersecting problematic social spaces is a developing area within disaster scholarship (Bryant & Garnham, 2015; Dominelli, 2020; Parkinson & Zara, 2016), and engaging with metaphysical spaces can inform how challenges develop over time, potentially hindering recovery.

The analysis of emotions offered in Chapter Five demonstrates that emotions are present within men's disaster narratives, and while there may be attempts by male participants to conceal emotions, close attention to trauma and feelings can provide detailed understandings of the ways in which men interpret and reproduce their experiences of disaster. In some instances, men alluded to stoicism which reflected a form of strength post-earthquake, yet subtle emotional cues such as slumped shoulders, loss of eye contact with the interviewer and conversational pauses were identifiable. Within the research, attention was given to why men actively suppressed emotion and the importance of this for well-being and recovery. In this context, disaster policy and practice must recognise the mediating role of place-based masculinities in constructing how men are affected by disaster and how they manage adversity.

## **Implications of the Research Outcomes for Disaster Risk Reduction Policy and Practice**

The outcomes from this study contribute to current understandings of men, masculinities and disaster. Each research article offers a critical examination and perspective of the ways disasters can unfold and generate stressors for men. The collective research outcomes have implications for gender and disaster policy and practice.

International disaster guidelines and policies as discussed within the literature review chapter of this thesis, do consider the role of gender in the context of how individual vulnerabilities and capacities are formed to an extent. The Sendai Framework for Disaster Risk Reduction for example, draws attention to how women are disproportionately affected by disasters, and further proposes the implementation of gender-sensitive policies and plans (UNDRR, 2015b). While it can be argued that the inclusion of gender, and more specifically, women in the Sendai Framework for DRR is a positive step in working towards gender equity in disaster contexts, acknowledgement of the impacts of disasters on men remains absent. The research outcomes discussed in this thesis, demonstrate multiple ways in which ideas pertaining to hegemonic masculinity, underpin men's responses to a disaster, and how they cope with disruption and trauma. A key theme threading throughout this research, and the literature on men and disaster, is men's preference to remain independent, thereby influencing their decision to manage stressors alone. The implications of this stoicism recognised in some men, is an area of concern for men's well-being in post-disaster spaces. Health studies indicate that men's mental health is significantly impacted in disasters, which has resulted in high male deaths by suicide (Alston & Kent, 2008; Bryant & Garnham, 2015). Therefore, an argument can be made that recognition of men's personal experiences of disasters, and importantly the role of masculinities should be considered in international policies and practices in order to work towards reducing disaster risk and vulnerabilities.

A key contribution of this thesis to furthering disaster scholarship has been demonstrating the intricate relationship between place and masculine identities in shaping men's experiences of disaster. While international policies and plans, such as the Sendai Framework provide broad recommendations and objectives in regard to gender, it can be stated that attention to the ways masculinities are formed and understood in place is required for local, regional and national disaster policies and practices.

A review of the New Zealand disaster management policies (NEMA, 2015, 2019) provided in Chapter Two, indicate a lack of recognition of the ways gender relations underpin vulnerability and capacities in disasters. It appears that current New Zealand emergency management frameworks, such as the National Disaster Resilience Strategy (2019) and the National Civil Defence Emergency Management Plan (2015) do not include gender-sensitive disaster plans which have been recommended in the Sendai Framework for Disaster Risk Reduction. In regard to the outcomes of this doctoral research, there was an absence in New Zealand emergency management and disaster plans, of the ways in which masculinities shape men's responses to, and recovery from disaster. As identified within the study, and across the literature on men and disaster, men are more likely to enact risky behaviour during natural hazard events, which puts them at risk of injury and in some instances, death. Dangerous behaviours, that are tied to gender performances

such as driving into tsunami zones during a tsunami warning, exemplifies the importance of integrating understandings about the influence of gender in disasters into New Zealand emergency management policies, plans and practices.

Health and well-being are central to acquiring knowledge on how disasters impact people. The literature indicates that health can be significantly impacted in disaster (Fordham & Meyreles, 2014; Neumayer, & Plümper, 2007). The concerns for health in disaster spaces in New Zealand was recognised in the developments of well-being programmes following the Canterbury earthquake sequences, such as the All Right? campaign. The All Right? campaign, which partnered with the Canterbury District Health board and the Mental Health Foundation of New Zealand does include discussions of masculinity, and sets of understandings of the 'tough kiwi bloke' (All Right?, 2020), however it appears that knowledge on the ways in which notions of masculinities contribute to health has not been transferred into official national emergency management frameworks.

Health outcomes, including injury and deaths have been attributed in many cases to gender socialisation (Haynes et al., 2010; Neumayer & Plümper, 2007; Salvati et al., 2018). It is therefore surprising that knowledge of the ways social constructions of gender impact health remains absent within the New Zealand National Health Emergency Management Plan (Ministry of Health New Zealand, 2015). This thesis draws attention to the need to include gender in New Zealand disaster management plans and recovery frameworks in order to cultivate an awareness of gendered practices and performances that may increase risk and impede recovery. In light of an enhanced understanding of rural New Zealand hegemonic masculinity in disasters, it must be recognised that men may align with a form of hyper-masculinity, thus targeted and contextually relevant services and resources need to be employed. Such services could adopt practices that are already established in mental health resources targeted at men's needs (e.g., headfirst, movember and mates in construction), that promote having casual conversations around well-being. Implementing a purposive support services for men, may assist in normalising help-seeking behaviours and emotional expression, as well as work towards reducing disaster risk and negative health outcomes for men.

Long-term recovery planning in New Zealand should incorporate a gender focus. As this doctoral research and the international literature on gender and disasters demonstrate (Bradshaw, 2013; Enarson & Fordham, 2001; Ruwanpura, 2008; Tyler & Fairbrother, 2013a, 2018; Zara et al., 2016), gender plays an intricate role in the ways people are affected by natural hazard events. In addition, gender analysis can further inform understandings of preparedness, personal risk, vulnerabilities and capacities. A key element identified within men's narratives was how local knowledges were side-lined by government authorities. Marginalising men's experiences and understandings of the environment fundamentally undermines their masculine identity which, as shown within Chapter Four, can create conflict and barriers to recovery.

Underscoring this thesis is evidence that illustrates the importance of applying gender holistically within disaster management plans, including the incorporation of women's experiences, men's and gender identities outside of the gender binary. Despite 17 of participants' being pākehā residing in rural locales

of New Zealand's South Island, inferring hegemony and sameness, differences in men's experiences, challenges and perceived strengths in regard to the Kaikōura/Waiiau earthquake were identified. These differences within a group that shared similar structural identity categories showcases diversity of experience and the significance of examining intersectionality in stories of disasters. Paying attention to sameness and difference, in-depth knowledge on the ways that social positionings shape disaster risk, vulnerabilities and capacities can be gained.

Contributions can be made to the international discussions concerning disaster policy and practice. Research participants' personal realities of the Kaikōura/Waiiau earthquake highlighted the need for including men within international frameworks. Specifically focusing on women when referring to gender in disasters within international policies, as argued within the thesis, is problematic. This doctoral study showcases the challenges as well as the capacities of men in disasters, which are typically silenced by practices formed by a hyper-masculine body politic that underpins disaster preparedness and response policies. Marginalising men's personal struggles, coupled with influences of forms of hegemonic masculinity (in the case of New Zealand, stoicism, strength and independence), can lead to health issues and challenges to men's well-being, rehabilitation and recovery. Measures must be put in place to mitigate stressors and negative health outcomes for men.

### **Broader Limitations of Research and Directions for Further Study**

This research is one of the few known studies that explicitly explores rural men's personal experiences of a disaster in Aotearoa, New Zealand, and while the project provides an insight into a complex, multidimensional and sensitive topic, it remains somewhat limited in its capacity to present a comprehensive exploration of the gendered nature of the Kaikōura/Waiiau earthquake.

One particular limitation relates to how recruitment was not effective in engaging more diverse voices from within the communities affected by the earthquake. Multiple attempts were made to facilitate conversations with farmers, seasonal migrant workers, unemployed men, men with disabilities and men aged 18-30 years. Furthermore, including more narratives from Māori would have provided cultural and contextual depth to the study. Temporal and financial limits also constrained recruitment of further participants within Marlborough and North Canterbury. Moreover, a conscious decision was made to not disturb communities by repetitive promotion of recruitment for the study.

The lens of hegemonic masculinity was applied to the interview material, thus the analysis was unable to go into much depth concerning men who may align with other forms of masculinity, such as subordinate or marginalised masculinities. Reviewing multiple types of masculinities in depth was beyond the scope and capacity of the thesis. A recommendation for further study would be to expand this doctoral work and explore the multiple ways that subordinate and marginalised masculinities are constituted within men's personal disaster stories.

Another research limitation relates to how stories are continually constructed and shaped by what the participant wants or does not wish to share. As previously discussed, men can have investments in



maintaining a valued form of masculinity and thus, may actively conceal sensitive information. Due to the sensitive nature of this research, deeply personal information may not have been disclosed to the interviewer. Therefore, a further study investigating partners' perceptions of men's experiences of the Kaikōura/Waiiau earthquake could strengthen the overall understanding of men and disasters. Men's partners for example, may provide knowledge about details that men deliberately silenced.

Health and well-being were recognised as important elements during discussions with participants about men and disasters and were explored broadly within components of this thesis. While this research did not have a specific focus on health, this was determined as an important factor in understanding men's experiences of disasters. One recommendation for future research would be for health to be a focal point of analysis in order to gain detailed knowledge on men's well-being in disaster, including rates of mortality, suicide and injury.

Conducting a PhD thesis by publication can provide important learning opportunities, however this method of thesis writing also poses some limitations relating to the constraints of the journal article publication process. Chapters Four, Five and Six comprised of articles that were written for specific journals, each having their own aims, guidelines, word limits and styles. While lessons were learnt in composing articles and navigating the publication and peer-review process, these chapters were restricted in their content and depth of analysis.

### **Concluding Comments**

This doctoral research exhibited how men's realities of a disaster were constituted through multiple elements that, underpinned by adversity, continue to shape and alter men's lives in post-disaster spaces. By employing feminist methodologies, the research highlighted the subtle and intricate challenges, and adaptive capacities of New Zealand rural men in disaster. Importantly, the study provided evidence as to why attention must be given to the place(s), space(s) and temporalities in which disasters occur. Socially constructed identities, shaped by perceptions and social interactions situated in place, can inform knowledge of vulnerabilities, and the ways in which people respond and recover from disasters. In the case of the Kaikōura/Waiiau earthquake, place-based New Zealand hegemonic masculinity underpinned men's experiences of the event. Thus, in the context of men and disasters, place plays a significant role in how men's disaster realities are formed.

Through engaging with geographies of emotion, mobility, space, time and place, the thesis enhances understandings of men's realities of post-disaster environments on the individual and local level. This doctoral study contributes to the gender and disaster literature and the emerging subject of men and disasters. The research showcases the place and significance of gender analysis of disaster events which can identify social factors that shape risk, vulnerability and/or hinder recovery. Moreover, by bringing together knowledges on New Zealand masculinities, space, place and time this research presents a socially and contextually relevant framing of rural men's experiences of disasters. In summary, understanding the influence of space, place and time in discussions of gender and disaster, and disasters more broadly, can strengthen what is currently known about disaster risk reduction, response and recovery.

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Appendix A: Massey University Full Human Ethics Approval

Appendix B: Interview Schedule

Appendix C: Participant Information Sheet

Appendix D: Participant Consent Form

Appendix E: Authority for the Release of Transcripts

Appendix F: Research Recruitment Advertisement

Appendix G: Supervisor Confidentiality Agreement (Dr Suzanne Phibbs)

Appendix H: Supervisor Confidentiality Agreement (Associate Professor Christine Kenney)

Appendix I: Supervisor Confidentiality Agreement (Dr Cheryl Anderson)

Appendix J: Statement of Contribution Doctorate with Publications/Manuscripts (DRC 16)

Appendix K: Statement of Contribution Doctorate with Publications/Manuscripts (DRC 16)

Appendix L: Statement of Contribution Doctorate with Publications/Manuscripts (DRC 16)

Appendix M: Statement of Contribution Doctorate with Publications/Manuscripts (DRC 16)

Appendix N: Article One published 2020 in the *International Journal of Disaster Risk Reduction*

Appendix O: Article Four submitted to *Transactions of the Institute of British Geographers*



Date: 23 May 2018

Dear Ashleigh Rushton

Re: Ethics Notification - **SOB 18/13 - But What About the Men? Investigating the Strengths of, and Challenges for, Men Following the 2016 Kaikoura Earthquake.**

Thank you for the above application that was considered by the Massey University Human Ethics

Committee: **Human Ethics Southern B Committee** at their meeting held on **Wednesday, 23 May,**

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely



Dr Brian Finch  
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

### Interview schedule

But What About the Men? Investigating the Strengths of, and Challenges for, Men Following the 2016 Kaikōura Earthquake. Your experience of the Kaikōura Earthquake and its aftermath.

#### Topics to consider

- Work/employment
- Family/friends/community
- Preparedness
- Impacts
- Physical and environmental damage
- Health and Well-being
- Actions and coping strategies
- Concerns and issues
- Cultural considerations
- Useful resources/social networks and support
- Recommendations for individuals, communities, emergency services and government

**Task One:** You will be asked to participate in a short ranking exercise that will require you to place in order of importance 8 statements related to sets of understandings about masculinity.

#### Specific Interview Questions

- Please tell me a little bit about yourself and your background.
- Tell me about your experience of the Kaikōura earthquake.
- How have you been affected by the earthquakes, for example damage to your home and workplace, access to health services, material, financial, personal, health impacts? What resources or support was available to help you cope (institutional, financial, community based, friends, and neighbours)?
- What resources that you were used to having such as water, power, fuel, roads etc. were not readily available after the earthquake (and for how long)?
- Reflecting on the Kaikōura earthquake, how well prepared were you for a large earthquake? What resources would have been useful to have prior to the earthquake?
- Tell me about the particular strengths and skills that you drew on in responding to this earthquake and how they might be useful in managing other natural hazard events. What new strengths/ knowledge and capabilities did you become aware of while coping with the earthquake?
- How safe and secure do you feel in your home, your work place or travelling around the community? If you feel safe, how long did it take you to feel safe again? If no, what are your on-going concerns?
- How do you feel you have coped following the earthquake? For example, any sleepless nights, flash backs, panic attacks etc.
- Looking at people in your community who were impacted by the earthquake, tell me about the attributes, characteristics and actions of people who you thought coped and responded well.

- Without identifying people, what sorts of things did people who did not cope well do and what characteristics and types of actions did they display?
- What do you think are some of the key challenges for your community going forward?
- Are there issues or areas that you feel that you are unable to talk about in regards to your experiences of the earthquake and how you have reacted to it since?
- Have you been receiving any form of support (financial, social, health services)?
- Do you think men and women differ in a disaster environment, if so, how?
- Are there any other comments that you would like to make?

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 18/13.

If you have any concerns about the conduct of this research, please contact

**Dr Rochelle Stewart-Withers**

Chair, Massey University Human Ethics Committee: Southern B

Telephone 06 356 9099 x 83657

Email [humanethicsouthb@massey.ac.nz](mailto:humanethicsouthb@massey.ac.nz)

## **INFORMATION SHEET**

But What About the Men? Investigating the Strengths of, and Challenges for, Men Following the 2016 Kaikōura Earthquake.

### **Introduction**

This project seeks to investigate the experiences of men following the 2016 Kaikōura Earthquake, New Zealand. The research will be conducted by Ashleigh Rushton who is currently undertaking PhD study at the Joint Centre of Disaster Research at Massey University, New Zealand. This research will provide insight into how men experience, respond to and cope with a disaster, as currently there is little known about, or research done on this topic.

### **Description and invitation**

Within the study of disasters' field, men's stories and experiences are rarely documented. There is an assumption that men are able to cope as they are not as affected by a disaster, however little research has been conducted to support this assumption. This research will explore both the strengths and capacities of men in the community along with assessing the adequacy of support for men during disasters.

You are invited to participate in this research project and to take part in a face to face interview with the researcher, Ashleigh Rushton. The interview will last approximately 60-90 minutes and involve a discussion and questions relating to your experience during and following the November 2016 Kaikōura earthquake, which affected the North Canterbury and Marlborough regions of the South Island. At the beginning of the interview, you will be asked to perform an exercise in which you rank 8 short statements about masculinity taken from the media and academic literature in order of importance. You will then be asked to talk about how you prioritised these statements. You will also be asked to review the transcript (notes) of your interview and to make amendments and/or corrections. Once you are happy with the transcript you will need to sign the release of transcript agreement and return this to the researcher along with your amended interview notes. The themes and questions which will be discussed during the interview are:

- Your memory and experiences of the 2016 Kaikōura Earthquake
- Skills and strengths in responding to the Earthquake
- Physical and environmental damage
- Concerns and issues
- Coping strategies and problem solving
- Availability of resources



## **Data Storage**

Recordings and notes taken during the interview including names will be kept confidential by using pseudonyms (a different name). At no point in the research or typing up of the thesis will names be given. All recordings and notes taking during the interview will be kept secured and locked away in a filing cabinet at Massey University as the researcher, Ashleigh Rushton is bound by the Privacy Act and confidentiality agreement.

## **Important information**

- A confidentiality agreement must be signed by the researcher which protects against the disclosure of confidential information.
- Sound recording and notes will be taken throughout the interview. The participant has the right to decline to the interview being sound recorded.
- The researcher is strictly bound by the Privacy Act and the confidentiality agreement to guarantee the anonymity of the participants. The anonymity of participants will therefore be maintained in any published research to ensure that this research will have no negative impact upon participants.
- A participant consent form must be signed by each participant, which states they are agreeing to take part in the interview and allow for what is discussed in the interview to be used as part of the research and be included in the PhD thesis.
- The participant must be aware that at any point they can withdraw their interview from the research.
- If the participant is happy to be identifiable in the research then I, the researcher will make him aware of the possible issues associated with that – for example, people in his local community may read the research and speak to him about his experiences that he has disclosed in the interview process. In regards to a participant identifying another person (who hasn't been interviewed, thus hasn't signed a consent form etc) – I, the researcher will not disclose any information or attributes in the thesis or any conferences/papers associated with this research that may identify that person.

## Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- Decline to the interview being sound recorded
- Decline to answer any particular question
- Withdraw from the study at any point before the thesis is submitted (October 2020)
- Ask any questions about the study at any time during participation
- Provide information on the understanding that your name will not be used unless you give permission to the researcher
- Be given access to a summary of the project findings when it has concluded

The student for this PhD research project is:

### **Ashleigh Rushton**

[a.rushton@massey.ac.nz](mailto:a.rushton@massey.ac.nz)

020 4141 3276

and the supervisors are:

- Dr Christine Kenney – [c.kenney@massey.ac.nz](mailto:c.kenney@massey.ac.nz)
- Dr Suzanne Phibbs – [s.r.phibbs@massey.ac.nz](mailto:s.r.phibbs@massey.ac.nz)
- Dr Cheryl Anderson – [andersonlefale@gmail.com](mailto:andersonlefale@gmail.com)

If you have any questions, or at any point need to speak with the researcher or her supervisors, please do not hesitate to contact using the contact details above.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 18/13. If you have any concerns about the conduct of this research, please contact

### **Dr Rochelle Stewart-Withers**

Chair, Massey University Human Ethics Committee: Southern B

Telephone 06 356 9099 x 83657

Email [humanethicsouthb@massey.ac.nz](mailto:humanethicsouthb@massey.ac.nz)



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TE KURA PŪKENGĀ TANGATA

## ***But What About the Men? Investigating the Strengths of, and Challenges for Men Following the 2016 Kaikōura Earthquake***

### **PARTICIPANT CONSENT FORM**

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

	YES	NO
I agree to being sound recorded during the interview	<input type="checkbox"/>	<input type="checkbox"/>
I agree to notes being taken during the interview	<input type="checkbox"/>	<input type="checkbox"/>
I wish to have the interview recording and notes returned to me	<input type="checkbox"/>	<input type="checkbox"/>

I agree to participate in this study under the conditions set out in the Information Sheet.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Full Name - printed** \_\_\_\_\_

*This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 18/13. If you have any concerns about the conduct of this research, please contact Dr Rochelle Stewart-Withers, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 356 9099 x 83657, email [humanethicsouthb@massey.ac.nz](mailto:humanethicsouthb@massey.ac.nz)*



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## ***But What About the Men? Investigating the Strengths of, and Challenges for Men Following the 2016 Kaikōura Earthquake***

### **AUTHORITY FOR THE RELEASE OF TRANSCRIPTS**

I confirm that I have had the opportunity to read and amend the transcript of the interview(s) conducted with me.

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research.

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Full Name - printed** \_\_\_\_\_

*This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 18/13. If you have any concerns about the conduct of this research, please contact Dr Rochelle Stewart-Withers, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 356 9099 x 83657, email [humanethicsouthb@massey.ac.nz](mailto:humanethicsouthb@massey.ac.nz)*

### Are you a man that's been affected by the 2016 Kaikōura Earthquake in the North Canterbury and Marlborough regions of New Zealand?

**Men's participation is needed in a PhD study exploring the effects disasters have on men.**

**This project is developing new knowledge in the research field of gender and disasters, that will improve disaster management and recovery planning**

#### **Details:**

- An interview will be arranged and will last for approximately 60-90 minutes
- Questions asked will relate to your experiences of the earthquake, including your actions and the challenges you faced

#### **Who:**

- Men
- Aged 18+
- Residing in the Canterbury and Marlborough regions of New Zealand
- Affected by the 2016 Kaikōura earthquake

**If you are interested in participating in the research study or require more information, please contact:**

Ashleigh Rushton

A.rushton@massey.ac.nz

Joint Centre for Disaster Research  
Massey University  
Building T18  
Tasman Street  
Wellington



Photo: Dr Kate Pedley, University of Canterbury



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***But what about the men? Investigating the strengths  
of, and challenges for men following the 2016  
Kaikōura earthquake***

**CONFIDENTIALITY AGREEMENT**

I Suzanne Phibbs,

agree to keep confidential all information concerning the project names above.

I will not retain or copy any information involving the project.

Signature:

Handwritten signature of Suzanne Phibbs in black ink.

Date:

31.07.19



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AND SOCIAL SCIENCES  
TE KURA PŪRENGA TANGATA

***But what about the men? Investigating the strengths  
of, and challenges for men following the 2016  
Kaikōura earthquake***

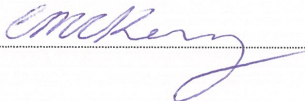
**CONFIDENTIALITY AGREEMENT**

I Christine Kenney,

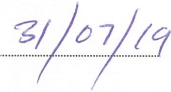
agree to keep confidential all information concerning the project named above.

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MASSEY UNIVERSITY  
COLLEGE OF HUMANITIES  
AND SOCIAL SCIENCES  
TE KURA PŪKĒNGA TANGATA

***But what about the men? Investigating the strengths  
of, and challenges for men following the 2016  
Kaikōura earthquake***

**CONFIDENTIALITY AGREEMENT**

I Cheryl Anderson,

agree to keep confidential all information concerning the project names above.

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A handwritten signature in black ink, appearing to read 'Cheryl Anderson', written over a horizontal dotted line.

Date:

A handwritten date '3/07/2019' in black ink, written over a horizontal dotted line.



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DRC 16



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Contents lists available at ScienceDirect

## International Journal of Disaster Risk Reduction

journal homepage: <http://www.elsevier.com/locate/ijdrr>

## The gendered body politic in disaster policy and practice

Ashleigh Rushton<sup>a,\*</sup>, Suzanne Phibbs<sup>b</sup>, Christine Kenney<sup>a</sup>, Cheryl Anderson<sup>c</sup><sup>a</sup> Joint Centre for Disaster Research, Massey University, New Zealand<sup>b</sup> School of Health Sciences, Massey University, New Zealand<sup>c</sup> Joint Centre for Disaster Research, New Zealand

## ARTICLE INFO

**Keywords:**  
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## ABSTRACT

The field of gender and disasters emerged from the notion that a disaster is a physically and socially constructed event. Recognition that women's position in society and the home increases vulnerabilities to disasters has led to the development and application of gender in disaster policy and practice over the last three decades. Gender research has been important to ensure women's needs are recognised and assistance provided in an appropriate manner within disaster contexts. However, 'gender and disaster' has become synonymous with the interests and concerns of women due to enduring structural inequalities that extend into disaster management. Drawing on sets of understandings about the body politic within social and political theory, which considers how the male body underpins sets of understandings about the 'neutral', idealised gender, this paper reviews how an inclusive understanding of gender and disasters may be developed through considering the strengths of, and challenges for, men. There has been limited analyses of the broader perceptions and personal experiences of men impacted by disasters. Therefore, expanding this scholarship through an analysis of masculinity will provide a foundation for understanding men's stories and experiences of disaster.

## 1. Introduction

Attention to gender within the context of disaster resulted from challenges to essentialist discourses and practices that tended to naturalise gender in sets of understandings of biology. Drawing on key ideas in feminist scholarship [1,2] Fordham [3] and Enarson [4] amongst others identified socially and culturally specific gender conventions were placing women in the global North and South at risk. Subsequent studies of women's disaster experiences highlighted areas of discrimination, exploitation and hardship resulting in change in disaster risk reduction (DRR) practices, including the introduction of initiatives to support women in preparing, responding and recovering from disasters. However, focused attention on women has created a gap in the literature pertaining to men's roles, perceptions and personal experiences. Whilst disasters have historically been narrated from the perspective of men, they have become "invisible as gendered actors in most disaster studies" [5, p. 9]. Consequently, there has been little research examining how men are personally affected by disaster. This article reviews the development of gender in disasters scholarship and considers drivers underpinning the need for a contemporary focus on the gendered experiences of men. This paper focuses on the gender binary of women and men,

however it is important to acknowledge crucial research on transgender and genderqueer individuals which trouble dualistic understandings of gender [see 6–8].

## 2. The body politic in disaster policy and practice

Disaster research has identified that social conditions, rather than the physical elements of disaster, create vulnerabilities to natural hazard events [9,10]. Development scholars, whose work focuses on ideas associated with alleviating inequality and poverty, noted that although socioeconomic progress and disasters coincide, there has been minimal research exploring the economic impacts and implications of disasters for women [11,12]. Thus, feminist scholars [13–16] documented women's experiences and identified that women are less likely to have access to resources and more likely to rely on state or Non-Government Organisation assistance post-disaster. A lack of attention to women's needs in disaster contexts may also be traced back to biases embedded within the social and political fields governing disaster preparedness and response. The marginalisation of women's disaster needs and exclusion of women's voices in public spheres pertaining to disasters reflect the influences of the body politic.

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## Time, Space and Disasters: An Exploration of Mobile, Temporal and Spatial Geographies in Rural Men’s Stories of the 2016 Kaikōura/Waiiau Earthquake in New Zealand

Journal:	<i>Transactions of the Institute of British Geographers</i>
Manuscript ID:	TIBG-RP-Jan-2021-0003
Manuscript Type:	Regular Paper
Keywords:	Metaphysics, Space, Time, Mobility, disaster, Gender
Abstract:	<p>Emergency management institutions conceptualise time and space as static and structured into phases; readiness, response, recovery and resilience, which are perceived as linked and progressive in a linear trajectory. Disaster scholarship has also uncritically accepted these concepts as uniform and applied them in policy and research. Yet, notions of uniform space and time do not account for the multiplicity of individual disaster experiences. This article draws on conceptualisations of metaphysical spaces, mobility and time to inform analysis of rural men’s stories of the magnitude 7.8 Kaikōura/Waiiau earthquake. Semi-structured interviews were conducted with 19 men to capture their personal experiences of the earthquake. Research outcomes showcase that rural men’s earthquake experiences were constructed by multiple, mobile and overlapping metaphysical and physical spaces and temporalities. Process time, which refers to immeasurable quantities of time, was used to highlight how accumulations of earthquake-related projects fall outside of time and space conceptualisations applied within disaster management. Findings demonstrate that participants’ day-to-day lives were shaped by challenges including disturbance to life trajectories, which precipitated reoccurring trauma and ongoing recovery practices. This article considers how understandings of space and time can be extended to understand the mobile, unseen spaces and temporalities, such as embodied trauma, that operate simultaneously within physical and social spaces. New insights into the unobserved metaphysical dimensions of disaster response and recovery are presented.</p>

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15 Abstract  
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17 Emergency management institutions conceptualise time and space  
18 as static and structured into phases; readiness, response, recovery and  
19 resilience, which are perceived as linked and progressive in a linear  
20 trajectory. Disaster scholarship has also uncritically accepted these  
21 concepts as uniform and applied them in policy and research. Yet,  
22 notions of uniform space and time do not account for the multiplicity  
23 of individual disaster experiences. This article draws on  
24 conceptualisations of metaphysical spaces, mobility and time to inform  
25 analysis of rural men's stories of the magnitude 7.8 Kaikōura/Waiiau  
26 earthquake. Semi-structured interviews were conducted with 19 men to  
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11 social spaces. New insights into the unobserved metaphysical  
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13 dimensions of disaster response and recovery are presented.  
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20 *1. Introduction*

21  
22 New Zealand has experienced significant natural hazard events  
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24 including the 2010-2011 Canterbury earthquakes, Kaikōura/Waiiau  
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26 earthquake (2016), Edgcumbe floods (2017), and the recent Te Puia o  
27  
28 Whakaari (White Island) volcanic eruption (2019). The increasing  
29  
30 incidence of hazards is reflected globally, and the ways that natural  
31  
32 hazards intersect with human populations, creating psychosocial  
33  
34 stressors is apparent (Dominello, 2020; Dominey-Howes, 2015;  
35  
36 Parkinson & Zara, 2016). This paper contributes to understanding how  
37  
38 disasters alter people's day-to-day lives by drawing on time-space  
39  
40 concepts to explore individual responses to changes and stressors in  
41  
42 disasters.  
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47 Time and space are often hyphenated (Dodgshon, 2008), or joined  
48  
49 (May & Thrift, 2001), illustrating their inter-dependent relationship  
50  
51 (Schwanen & Kwan, 2012). The interwoven and multidimensional  
52  
53 concepts are resources in which activities and experiences play out.  
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55 The use of video call technology to communicate with others across  
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57 time and space for example, has shaped interaction with space by  
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minimising the perception of distance across global scales. Examining experience through the ontological position of time-space generates knowledge in regards to the development of, and micro-connections between, structures, patterns and routines of daily life (Dijst, 2009; McQuoid et al., 2015; Shove, Trentmann & Wilk, 2009). Understandings of complex and multiple behaviours, actions and (dis)advantages in human experience are also enhanced (May & Thrift, 2001; McQuoid et al., 2015). Although time-space is grounded in geographic inquiry, few studies have used time and space to explore personal disaster realities. Knowledge about how spaces of masculinities shape rural men's, responses to, and recovery from natural hazard events, are also poorly documented.

This article examines rural men's stories of the 2016 New Zealand Kaikōura/Waiiau earthquake, through space-time to facilitate understandings about how disasters create shifts in perceptions of space and time. While time-space is commonly conceptualised as fixed and objective (Hägerstrand, 1970, 1985), this research adopted a feminist methodology to enable conceptualisation of time-space as fluid and subjective (Rose, 1996; Bondi, 2005). The theoretical concept of metaphysical space(s) is applied to capture cognitive and spatial elements that shape and are co-constructed by experiences, actions and thoughts, which help explain structures of reality (Kant, 1997). This article adopts the term meta-space(s), that has been applied in geography analysis (Hottola, 2005), however the definition is extended to denote the assemblage of metaphysical spaces that constitute

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2  
3 space(s) of social phenomena, including unseen realities in an  
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5 individual's subconsciousness.  
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8 This paper illustrates the mobility, spatiality and temporality of  
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10 disasters. Participants' day-to-day disaster experiences and multiple  
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12 changes and challenges to their life courses are explored. An overview  
13  
14 of the time-space literature, including its use in disaster scholarship is  
15  
16 presented, followed by space-time analysis of narratives of the  
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18 Kaikōura/Waiiau earthquake. Theories on space and time are advanced,  
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20 through suggesting the application of metaphysics to understandings of  
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22 mobility, space and time.  
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## 28 2. *Time, Geography and Space*

29  
30 Geographers defined space as reflecting place without meaningful  
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32 connection (Tuan, 1977). Space(s) was perceived to be physical, static  
33  
34 and quantified, which influenced thinking on spatial analysis  
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36 (Buttimer, 1980; Soja, 1989; Thrift, 2017). Spaces as physically  
37  
38 bounded locales, suggest apoliticism, objectivity and 'naturalism'.  
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40 However, critics of objectivity claim that spaces are constructed by  
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42 historic, political and social processes that inform thought and  
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44 behaviour (Buttimer, 1976; Lefebvre & Enders 1976; Massey, 2005).  
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46 They are therefore understood as having origins in the past that are  
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48 shaped by the affiliation of history, social relations and difference.  
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53  
54 Claiming space as objective, void of human experience and  
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56 interaction, fails to recognise the roles of age, sexuality, class and  
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58 gender in constructing spaces (Bondi, 2005; Haraway, 1991; Massey,  
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3 1994; McDowell, 1999; Rose, 1993). Activities, patterns and social  
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5 interaction shape behaviours, relationships and actions undertaken in  
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7 space (Buttimer, 1980), therefore space can be understood as  
8  
9 negotiated through social relations (re)constructed over time (Massey,  
10  
11 1994). Time like space, is regarded as a series of social constructs that  
12  
13 shape daily life (Davies, 2001; Friberg, 1993). Davies (1990) contends  
14  
15 that the constructions of time are created by masculine conceptions of  
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17 temporalities, that reflect the ways time has been standardised, and  
18  
19 divided into measurable components that are regulated by clocks and  
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21 calendars. These understandings of time have been driven by trade and  
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23 capitalism, rooted in colonial and patriarchal systems (Anderson, 1991;  
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25 Creswell, 2006).  
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31 The relationship between space and time can be conceptualised as  
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33 evolving, mobile and multifarious connections, processes and networks  
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35 (Ellegård & Vilhelmsen, 2004), which shape peoples' differing  
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37 experiences and actions. Activities require the availability and mobility  
38  
39 of time-space (Tuan, 1977), and as time geographers argue,  
40  
41 contestation occurs when activities compete for space and time  
42  
43 (McQuoid et al., 2015; Shove et al., 2009). In order to enhance  
44  
45 understandings of the complexities of the social world, it is therefore  
46  
47 necessary to explore the multidimensional aspect of peoples'  
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49 experiences within space and time (May & Thrift, 2001).  
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### 56 *2.1 Mobility, space and time*

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Time-geography, developed by Torsten Hägerstrand, is a theoretical approach that pays attention to temporal interactions within social and natural environments, and captures how events, activities and processes, situated in time, construct reality (Ellegård, 2018; Friberg, Sanden & Scholten, 2009). Time-geography fosters a quantified perception of socially constructed time (Davies, 1994; Ellegård, 2018), that aligns with normative understandings of time as linear, mobile along a continuum at a fixed pace (Ellegård, 2018). Anderson (1991) contends that communities are imagined and shaped by shared experiences, facilitated and supported by formations of time. Similarly time-geographers (Ellegård, 2018; Hägerstrand, 1970) understood that individuals share amounts of, and senses of time in spaces, and contend that mapping movements in space and time will contribute to understanding social interactions. Through drawing attention to the ways movements are temporally structured and/or constrained, (e.g. employment), time geography showcases how mobility is central to time-space thinking (Ellegård, 2018; Friberg, 1993).

Guided by positivism, time-space geography perceives space as a box to be filled with activities, where movements are mapped (Cragg, 2005; Davies, 2001), and lived experiences effectively objectified (Buttimer, 1976). Some researchers (Cragg, 2005; Dodgshon, 2008; Rose, 1993) assert that this representation of time-space fails to consider the social structuring of experiences. Common theorisations of space and time also neglect the importance of time, space and mobility's dependence on the body (Rose, 1993). Hägerstrand (1970,

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2  
3 1985), only referenced the body in relation to its limitations, prompting  
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5 Rose (1993) to argue that time-geography simplifies the body and  
6  
7 ignores other limitations such as homophobia, sexism and racism. Rose  
8  
9 (1993) maintains that time-geography should regard bodies as sites of  
10  
11 difference, in order to identify how bodies interact, move, are viewed  
12  
13 and treated. Her argument mirrors broader feminist perspectives, that  
14  
15 are grounded in understandings of how space and time shape varied  
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17 experiences of gender identities (Friberg, 1993).  
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## 23 2.2 Feminist contributions to space and time

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27 Feminist geographers critiqued approaches to time-space that  
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29 neglect the everyday social processes and actions of people (Davies,  
30  
31 2001; Friberg, 1993; Friberg et al., 2009). Friberg (1993) argues that  
32  
33 such approaches divide time between simple temporal spaces of work,  
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35 leisure and free time and perceive people passively rather than as social  
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37 actors, limiting time-geography's perception of time-space. Viewing  
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39 time in this manner reflects masculine discourses that do not  
40  
41 acknowledge patriarchal power relations (Davies, 1990, 1994). In  
42  
43 contrast, feminist geography contributes to understandings of time-  
44  
45 space, by conceptualising and understanding the spatial-temporal,  
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47 feminine, and masculine requisites that shape social phenomena  
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49 (Davies, 2001; Friberg, et al., 2009).  
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### 56 2.21 Process time

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The concept of process time (Davies, 1994) extends theorisation of temporalities beyond constructions of time as fixed and finalised, by considering the multiple and complex experiences within social phenomena. Davies (1994) introduces process time, as time that cannot be measured like clock time, but is understood as extending fixed notions of temporal regularity and continuity. Reviewing care work, Davies (1994) articulates how work for hourly paid carers is unpredictable and stretches beyond the constraints of time allocation for specific tasks. She asserts that chores may overlap, highlighting the fluid spatial and temporal boundaries that pose challenges for measuring tasks. Process time resolves the difficulty in quantifying time spent on individual activities, including time expended thinking about someone, a memory or a specific task. A person for example, is able to acknowledge they have conducted an activity, which may be measured over the course of a day, but tracking the time expenditure on that task over prolonged periods would become difficult. This includes time thinking about a task whilst simultaneously conducting other activities. Davies' (1994) point highlights how thoughts and activities do not necessary carve specific amounts of time or are finalised, but rather process time, "emphasises that time is enmeshed in social relations. Several processes may intertwine simultaneously and the fabric of life is patterned by the multiple criss-crossing chains of these processes" (p. 280). She wanted to capture the discursive plurality of time and its association with contexts and social relations. The theoretical perspective of metaphysical spaces complements

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3 physical space by showcasing immeasurable activities, thoughts and  
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5 processes. For the purposes of this article, process time can be useful  
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7 to metaphysical spaces, recognised as the locales in which process time  
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9 is understood.  
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### 17 *2.3 Thinking metaphysical space(s)*

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19 Geography that concerns time-space and mobility is often  
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21 conceptualised as being static, fixed spaces across a linear temporal  
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23 trajectory. Hägerstrand (1970, 1985), contends that people cannot be  
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25 within two spaces at once. Yet, Gren (2001) asks whether focusing on  
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27 time-geography's physical ontologies, including corporeal constraints,  
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29 is a suitable approach, given time-geography seeks to analyse social  
30  
31 phenomena. Gren infers that space-time could reach beyond the  
32  
33 physicality of space, suggesting a move to examine metaphysics in  
34  
35 social spaces. Rose (2004) argues that metaphysics guides geographic  
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37 thought and should be drawn on more often in geography to help  
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39 understand social phenomenon.  
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44 However, geography has historically rejected metaphysics as a  
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46 credible source of knowledge (Buttimer, 1976; Grimes & Nubiola,  
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48 1997). The resistance for explicit engagement with metaphysics in  
49  
50 human geography relates to the prioritisation of reductionism and  
51  
52 determinism (Grimes & Nubiola, 1997) and perhaps the lack of an  
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54 agreeable definition of metaphysics (Kant, 1997). Grimes and Nubiola,  
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56 (1997) further argue that "many scientists have restricted themselves to  
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what can be dealt with in quantitative terms, which can be a poor reflection of the richness of everyday life” (p. 266). Buttimer (1976) alluded to the use of metaphysics in geography by suggesting researchers foster phenomenologist interpretations of everyday life that challenge positivist lines of enquiry, in order to build sets of understanding about the complexities of the nature of reality. She also recognised the value of capturing consciousness, and unseen elements of human behaviour that could inform understandings about the nature of reality. While development of metaphysics in geography has been slow, literature has more recently emerged in which metaphysics has been applied to research on space and human behaviour.

Hottola (2005) draws on metaphysics to examine how Western tourists sought spatial and temporal control in India. What Hottola (2005) terms ‘metaworlds’, refers to the “realities placed in time and space that differ from the dominant reality” (p. 2). As an exemplar, accessing spaces of familiar culture increased a visitor’s sense of control, which influenced time spent in spaces. Metaphysics was used to illustrate the invisible, complex, bias, in (un)conscious actions that underpinned tourist’s behaviours in affirming a spatiality of control while in a foreign country. Hottola’s work provides an insight into the ways an analysis of metaphysical spaces can capture the unseen and subtle factors that shape human behaviours and action. An argument is advanced that an understanding of metaphysical spaces can also offer in-depth knowledge on the ways in which experiences of the

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Kaikōura/Waiiau earthquake are constructed by obscure behaviours and activities.

Adopting metaphysics in human geography can facilitate exploration of the richness and complexities of human experience (Grimes & Nubiola, 1997; Rose, 2004) and extend qualitative research analysis by facilitating comprehensive explorations of diverse experiences. Expanding qualitative analysis through the use of metaphysics is showcased by Adams (2017) in his work on the metaphysics of encounters. His research illustrates how human encounters and communication are facilitated through physical modes of mobility (travel). However, recently, differing media and human interactions have enabled new metaphysics of encounters, as people participate in and across multiple spaces and scales simultaneously. Adam's work draws attention to the usefulness of applying metaphysics in geographic research in order to capture the mundane yet multifaceted experiences, meanings, values, practices and structures in the composition of space, place and time (Adams, 2017; Grimes & Nubiola, 1997).

Shifts in geographic thought pertaining to space and time can enable greater theoretical flexibility in articulating the subtle and unseen complexities of social phenomena (Gren, 2001; Rose, 2004). Extending temporal physical spaces such as locales to encompass the metaphysicality of spaces, (e.g. the space of bereavement), can mediate social interactions, which shape and are shaped by physical space(s). Examining space in a metaphysical form, challenges thinking on the

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relationship between mobility, time and space by capturing the tensions, decisions, thoughts, and processes embedded within social relations, providing an understanding of how everyday experiences of individuals inform, and are shaped by time. Considering metaphysics in relation to space can also enhance thinking on time-geography, by showcasing the multi-dimensional, mobility and social aspects of time and space.

When considering metaphysical spaces and temporalities, positivist claims of space(s) as fixed and bounded are rejected and conceptualisations of space as flexible, mutable and mobile are adopted. Like time-geography, mobility is embedded in the construction of metaphysical spaces and temporalities. Theoretical framings that draw on metaphysics, may extend corporeal mobility (Cresswell, 2006), through implying a movement of spaces that stretch beyond the mobility of the body. Green (2020) for instance, explores ‘digital nomads’ that thrive off the dynamic flows and fluxes of digital mobility. Technology has enabled ‘digital nomads’ to work remotely, enabling corporeal and digital mobility. The mobility of metaphysical spaces and temporalities, like digital nomads draws attention to the movement of projects, activities and cognitive tasks across space(s). An examination of rural men’s narratives of the Kaikōura/Waiiau earthquake, through the ontological perspective of metaphysical mobility, showcases the construction and composition of mobile metaphysicalities and temporalities in disaster social and physical spaces.

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While people may not be able to be physically situated in two places at once, conceptualising metaphysical space(s) facilitates an engagement with metaphysics in human geography; foregrounding an understanding of spaces in fluid, flexible, dynamic, shifting forms that intersect with, and are shaped by the body and physical spaces. Space in this sense is mobile, underpinning action, decision, emotion, thoughts and will. Metaphysics has a place in understandings of space, time and mobility precisely because it encourages questions around fluidity, mobility, and complexity while rejecting dichotomy and explicit objective/positivist modes of knowledge production (Haraway, 1991). This paper, draws on research participants' personal narratives to illustrate the theoretical ideas of metaphysical spaces, temporalities and mobilities in experiences of disaster in space and time.

### *2.5 Disasters in time and space*

Disasters do not happen in a vacuum, they occur in and across space and time. Disaster research commonly regards time as linear that moves through different phases and across physical spaces. As an exemplar, Wilt et al. (2018) employed spatial modelling and statistical methods to investigate changes in HIV testing from one week to twelve weeks following Hurricane Sandy. Similarly, Arshad et al. (2020) used a temporal GIS analysis to investigate the relationship between green space, CO<sup>2</sup> absorption and climate change. A quantitative New Zealand study examining the spatial-temporality of Christchurch residents' moods and anxieties following the 2010-2011 Canterbury earthquake sequence, showcased the relationship between physical and social

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3 environments and mental health across space and time (Hogg et al.,  
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5 2016). The analysis identified a correlation between low levels of  
6  
7 mental health issues and strong connections to stable built and social  
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9 environments, and linked low mood and high anxiety levels with higher  
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11 levels of environmental disruption. Yet, there was a lack of analysis of  
12  
13 the mundane and complex realities of people negatively affected by the  
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15 Canterbury earthquakes, such as stressors generated from insurance  
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17 bureaucracy. Evaluation of research like the aforementioned  
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19 exemplars, which draw on quantitative methodologies to examine  
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21 finalised notions of the physical spatial and temporal dimensions of  
22  
23 disasters, highlighted a need for understanding the influence of disaster  
24  
25 generated social spatial and temporal structures. This paper contributes  
26  
27 to addressing that theoretical gap by conducting qualitative research on  
28  
29 rural men's experiences of space and time in disasters.  
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35 The structured nature of emergency response and recovery is  
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37 exemplified in the Sendai Framework for Disaster Risk Reduction  
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39 (UNDRR, 2015), where recovery, rehabilitation and reconstruction are  
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41 written as separate temporal stages of disaster experiences. Disaster  
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43 management infrastructures' hierarchical command and control  
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45 systems are driven by top-down approaches to emergency response and  
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47 recovery (Imperiale & Vanclay, 2019). This application of emergency  
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49 management involves a chain of command that relies on rapid  
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51 response, little room for error and a military style approach of  
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53 compliance and efficiency (Imperiale & Vanclay, 2019). The spatial  
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55 and temporal framework of disaster management provides the context  
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3 through which structured phases of response and recovery are  
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5 operationalised based upon quantifiable forms of evidence, targets and  
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7 timeframes. Yet, adhering to strict timeframes and phases brackets out  
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9 the subtle and individual impacts of disasters, such as continuous  
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11 disruption to sleep due to trauma, as well as the metaphysical aspects  
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13 of spaces (e.g. grief, trauma, financial concerns) and overlapping  
14  
15 trajectories of process time. Spatio-temporal analyses can contribute to  
16  
17 disaster scholarship through tracing the complex negotiations, patterns  
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19 and shifts in experiences that are constituted by social interaction  
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21 (Davies, 2001) in the context of disasters, over time.  
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### 29 3. The study methodology

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31 This article is based upon a broader research project that  
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33 investigated masculinity in the construction of rural men's stories of  
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35 the Kaikōura/Waiiau<sup>1</sup> earthquake. While men's voices dominate  
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37 disaster research, frontline expertise and decision making, their  
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39 personal experiences and needs are often neglected in disaster policy  
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41 and practices (Dominelli, 2020; Rushton et al., 2020). There are  
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43 concerns regarding the mental health of male disaster  
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45 victims/survivors, amplified by growing disquiet regarding men's  
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47 reluctance to seek help (Parkinson & Zara, 2016). Men's over  
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49 representation in New Zealand's suicide figures (Office of the Chief  
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51 Coroner of New Zealand, 2019), heightens concerns about the  
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58 <sup>1</sup> For the purposes of this research, the Kaikōura earthquake is referred to as the Kaikōura/Waiiau earthquake due to some participants naming  
59 this earthquake event as the Waiiau earthquake.  
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wellbeing of men located in regions affected by the earthquake. This paper employs qualitative inquiry and draws on concepts of mobility and spatial-temporalities to analyse rural men's experiences of the Kaikōura/Waiiau earthquake to develop an understanding of the unseen and immaterial impacts of disasters on individuals.

The magnitude 7.8 Kaikōura/Waiiau earthquake that occurred at 12:02am on the 14<sup>th</sup> of November 2016 and the subsequent aftershocks and tsunami informs this paper. Centred East in New Zealand's South Island, 15kms north of the small rural town Culverden, the initial earthquake triggered the rupture of over 20 faults across the North and South Islands including the surrounding seabed (Geonet, 2016). Two people died and 580 people reported injuries (Accident Compensation Corporation, 2017). Although the capital city Wellington experienced disruption primarily to infrastructure, substantial damage occurred in the rural regions of Marlborough and North Canterbury. Response and recovery efforts were focused on issues in urban environments, while the needs of the severely impacted rural communities were marginalised (Phibbs et al., 2018). Effects of the earthquake were exacerbated for rural communities as key routes between towns were cut off (Davies et al., 2017), which limited the supply of resources to those isolated communities (Phibbs et al., 2018).

The study engages with geographic enquiry to examine rural men's experiences of the earthquake, focusing on the intersection of place, space, time and wellbeing. The ways in which mobile metaphysical space(s) and temporalities manifest within men's stories of earthquakes

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are considered. Further objectives included identifying the complexities and mobilities of participant's activities, projects and the hidden challenges in men's post-earthquake day-to-day realities in order to understand additional stressors and labour that underpin and may problematise responses to, and recovery from disasters.

A feminist methodology framed the research process, and shaped collection and analysis of rural men's space-time experiences following the Kaikōura/Waiiau earthquake, in order to capture the gendered organisation of disaster stories. The narratives of 19 men who reside in North Canterbury and Marlborough were gathered during semi-structured interviews, which enabled participants to construct their own accounts and meanings of their experiences (Valentine, 2005). Dialogical interviewing was used as a conversational technique that works to disrupt power imbalances between researcher and participant through an active engagement between both parties in the co-production of meanings (Frank, 2005). Employing semi-structured interviewing coupled with a dialogical approach to gathering participants' views facilitated an understanding of how individuals make sense of their post-earthquake realities and the unseen complexities, temporalities and mobilities in which participants operate in.

Participants were recruited through disseminating information in local libraries and community centres as well as advertisements in community newsletters, on social media and in local newspapers. Rural men, aged 18 years and over who resided in North Canterbury or



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Marlborough and had experienced the 2016 Kaikōura/Waiiau earthquake were invited to participate in the project. This research proposed to document rural men's stories of the earthquake for the purposes of contributing to understand men's personal experiences of disaster globally, and to qualitative gendered research in Aotearoa New Zealand.

Interviews were conducted between November 2018-July 2019, two years post-earthquake. Each interview was digitally recorded and transcribed verbatim. Transcripts were manually coded following a thematic approach to analysing qualitative data (Braun & Clark, 2006). Thematic analysis indicated that the participants' stories of the earthquake were shaped by overlapping social and physical spaces and multiple temporalities. This article draws on process time, time geography, metaphysical spaces and mobilities to frame the analysis of these overlapping spaces and temporalities.

Participants were invited to choose their interview venue in order to foster their comfort, safety and control of the physical and social spaces in which they narrated their personal experiences. One participant wanted the interview to be private out of concern for people overhearing his story. Another participant wished for the interview to take place in a café to avoid the interviewer seeing his house that was still 'a shambles'. Men's decisions to share their stories highlight the metaphysicality and mobility of men's stories which move from a space of silence to a space of controlled disclosure. During correspondence prior to the interview, one participant spoke about not

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2  
3 usually partaking in research. Yet, in light of recent publicity  
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5 surrounding mental health, he felt it was important to share his story to  
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7 help those affected by future disasters. This participant's comments  
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9 accentuated the possible benefits of the research and showcased  
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11 participants' awareness that sharing stories of trauma and disruption  
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13 may assist others (Liamputtong, 2007).  
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17 Although this research contributes to wider disaster discourses,  
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19 attention is given to possible direct benefits for those who participated  
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21 in the project. In past instances, therapeutic experiences have been  
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23 noted in qualitative research as participants experience satisfaction  
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25 from telling their stories (Cutcliffe, & Ramcharan, 2002; Liamputtong,  
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27 2007). Similar benefits were substantiated by participants, for example,  
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29 one participant discussed in an interview how he gained more  
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31 satisfaction from talking during the interview than he did through the  
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33 course of a counselling session. The therapeutic benefits of interviews  
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35 may reflect the mobility of metaphysical spaces as interviewees move  
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37 into spaces of recovery. The interview presents an opportunity and safe  
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39 space for participants to speak about difficult experiences, which may  
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41 have been silenced. To facilitate participant's privacy and  
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43 confidentiality, pseudonyms are used for all participants, apart from  
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45 Gary who wished for his name to be used in this research. The research  
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47 received full ethical approval from the [XXX] University Human  
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49 Ethics committee (application no. 18/13).  
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#### Results – Narrating Metaphysical Spaces, Temporalities and Mobilities in Disaster

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#### 4.

Participants' narratives are drawn on to demonstrate how rural men's realities in a post-earthquake social environment are underpinned by multiple metaphysical temporalities and spaces. The stories discussed are presented within the themes of *culture*, embodied spaces, *recovering narratives of loss*, *gendered organisations in space and time* and *overlapping earthquake experiences*. These themes were identified within the interview material and used to illustrate the mobility of metaphysical spaces and temporalities and intersections with physical spaces in the construction of earthquake experiences and psychosocial stresses.

#### 4.1 Storying Narratives of Culture in Space and Time

The ways space and time are governed by cultural practices and beliefs may be understood as substantiating space and time as both products and processes of historical, political and social interactions (Lefebvre & Enders, 1976; Massey, 2005). Drawing on Tohorā's story, this section discusses culture, in shaping and constructing meta-space(s) and temporalities. During his interview Tohorā spoke about trying to prepare his community, here he emphasises how he drew on science to communicate the importance of earthquake preparedness:

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I actually got blamed for the earthquake when I walked onto the marae<sup>2</sup>...At our previous meeting which was only about a week or so before the earthquake, I had mentioned...we need to be prepared, the Hope fault roughly goes every 300 years, we're overdue...So we need to be getting ready for this because it's roughly on 300 year cycles. So when I walked on the marae, "it's your bloody fault, you said it was going to happen!" (Tohorā; 65-74)

Tohorā used statistical analysis to gauge the temporal dimensions of fault ruptures by situating the earthquake in the wider context of New Zealand's seismic history. His narrative highlights the temporality and spatiality of natural hazard planning and preparedness in the way it relies on temporal/linear data historically situated in space and time. This statistical interpretation indicates how disaster scholarship quantifies time-space as ways to understand natural hazards, including methods of communicating risk. Tohorā's narrative is constructed through reference to technological and scientific spaces. However, these spaces also intersect with metaphysical notions of the earthquake as well as the space of the marae by prompting Tohorā to communicate earthquake risk and importance of preparing. Tohorā's concern for, and appeal to his community to plan and prepare for an overdue earthquake reflects the metaphysical social space of community. This is demonstrated in his consideration of the probability of an earthquake,

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<sup>2</sup> Māori community centre.

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how it may impact his community and how the community can mitigate disruption. Concern and preparation for a hypothetical earthquake accentuates the mobility and temporality of metaphysical spaces that constitute process time (Davies, 1994), in which actions and tasks are not fixed within a temporal framework, but continue, and extend across multiple temporalities and spaces.

A spiritual space is indicated in Tohorā's talk in reference to being blamed for tempting fate. Multiple temporalities are constituted through stipulating earthquake occurrences are on linear temporal cycles. However, in line with Māori cultural beliefs regarding the power of speaking things into existence, Tohorā's community perceives Tohorā's talk on preparation as initiating the earthquake. The physical and metaphysical spaces depicted in Tohorā's narrative establish how social and physical spaces intersect and shape local indigenous understandings of disaster and community experiences. Tohorā's narrative draws attention to the embedding of culture in the understanding of metaphysics (Rose, 2004) and space, which is constituted through the intersection of physical, metaphysical and temporal spaces that govern tasks and action. These assemblages of spaces, can be regarded as a meta-space that showcases a bricolage of experiences and spaces in Tohorā's overall earthquake story. The linking of spaces is further illustrated in how Tohorā's community regarded him as the embodiment of the earthquake through his actions not only prior to the earthquake (through preparedness messaging), but through his leadership in the response.

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#### 4.2 Embodied Spaces

Mobility is dependent on the body within and between space(s) and time (Rose, 1993), and as a result of disaster, people may experience disruption to the body (Adams-Hutcheson, 2017a). This section draws on Jack's talk to analyse bodily reactions to physical movement following the Kaikōura/Waiiau earthquake.

Jack took his granddaughter to the Justin Bieber concert in Auckland three months after the earthquake. Here he explains how he felt when the temporary seating began to shake.

So we go along to...Mt Smart Stadium and what they do is they put all this scaffolding up and they build these seats...and the earthquake happened in November, so this was probably about February...and people started clapping and standing up. Anyway, this scaffolding was like doing this

*[moves hands side to side]*

And I said there is no way in hell I can stay here for the duration of this concert, because to me this could collapse and I guess the earthquakes had put me on edge so this did actually feel like an earthquake...so after about 30 minutes we actually left our seats (Jack, 55-64; Pākehā)

Jack chronologically reproduces his story of Mt Smart Stadium in present time, through situating the concert in the wider temporal context of the earthquake. Although he was physically distanced from

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where he experienced the earthquake (Marlborough), when the stadium seating shook, his body and mind were reminded of ground motion. Jack's experience highlights temporal and spatial mobilities of metaphysical spaces as individuals are brought back to a metaphysical time and space through similar encounters. The public space of Mt Smart Stadium became unsafe only to Jack. His narrative demonstrates the earthquake's spatial and temporal reach as the body constitutes a metaphysical and physical space of trauma where the earthquake is relived. Movement of the seating can be regarded as metaphysical through occupying space and acting as a reminder of the earthquake.

Jack's account exemplifies the spatiality of disaster, where embodied trauma follows spatial and temporal trajectories across scales (Massey, 1994). Metaphysical movements between metaphysical spaces of recovery, trauma and distress is inferred as he proceeds from a recovery space to spaces of relived distress, showcasing a meta-space of trauma. These spaces overlap with social (the audience) and physical spaces (the arena). Process time (Davies, 1994) can explain how individuals move within, and between unfixed metaphysical spaces and temporalities. Jack's experience is shaped by metaphysical spaces of past events, movement and trauma, showcasing recovery a process that requires recognition and management of continually reconstructed metaphysical and physical spaces. Metaphysical mobilities, spaces and temporalities can extend disaster risk reduction understandings of recovery, by capturing the manifestations of mental and physical

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3 trauma in post-disaster space(s), particularly trauma associated with  
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5 significant losses.  
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#### 10 4.2 Garry's story –recovering narratives of loss

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14 Two people died during the Kaikōura/Waiau earthquake, one of  
15 which, was Gary's partner Jo. Garry has given permission for his story  
16 to be reproduced in this article. His personal story is comprised of  
17 coping mechanisms that assist in navigating his loss as well as recovery  
18 from additional challenges stemming from the earthquake. Gary's  
19 narratives, detailed in this section, are constructed by multiple,  
20 intersecting, external and internal metaphysical and physical spaces  
21 and temporalities. They detail the multiple projects that he carries out  
22 to facilitate recovery, and how grief complicates understandings about  
23 space and time in disasters. Here Gary explains how Jo died  
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40 It went up and you couldn't stand up, you went up in the air. I  
41 got thrown through the door and she got thrown into the  
42 post...and smashed her head...I thought shit, I got up to try  
43 and run and I kept falling over, I finally got out...I was outside  
44 on the ground, lying on the ground just bouncing up and  
45 down...it kept on going...And I'm yelling out "Jo, Jo", what  
46 the bloody hell, where's she gone? I reversed [the car] back out  
47 and put the lights on into the house. And there she was in the  
48 doorway...Feet up against the stairs and her head was on the  
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ground....And I said “Jo, Jo you alright?”...I tried to find a pulse, and I could feel something I thought so I tried to give her mouth to mouth then, you know but nothing was happening I didn’t know if I was doing the right thing (Gary; 65-74)

Gary describes the earthquake in chronological order, presenting time as linear. This memory is a meta-space, shaped by an accumulation of spaces that contributes to constructing his earthquake experience. During his interview, Gary spoke about how the media falsely described Jo’s death (NZ Herald, 2016), hurting and angering him. In the talk below, Gary explains how, two years on from Jo’s death, he tries to ensure that his and Jo’s story is told accurately.

I want everyone to know because it seems to have been forgotten pretty quickly...I go out of my way to tell everybody...and some people say they didn’t even know anyone died in that earthquake. “Oh you’re the one whose wife died of the heart attack” this is at the dog park! We go to the supermarket or we go somewhere, people don’t even know that people died in the earthquake...But I tell *everybody* [emphasised], people just walking down the street, come here I want to tell you something [laughs] just about to that extent. If there’s an in. First of all that I lost everything in the earthquake. And blah blah, and I tell the story...my story.

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That's my way of dealing with it...[And] just so her memory  
doesn't get lost (Gary; 65-74)

Gary's account speaks to the importance of committing time and space to telling his story of loss. He continually reconstructs his experience through reconstituting time-space, evidenced in his identification of physical spaces (the supermarket, dog park, the street and the research interview) where he re-tells his story. Within his talk, metaphysical and temporal spaces of grief and multiple earthquake experiences connect with physical spaces. The media is an institutionalised meta-space, consisting of an assemblage of static and dynamic spaces (e.g. publishing house buildings, editors/reporters, online reporting, spoken words). This meta-space intersects with Gary's meta-space of his earthquake experience through incorrectly detailing Jo's death as resulting from a heart attack, which has hindered his recovery. The media meta-space has become so dominant in Gary's life that he works to correct the false reports that contribute to shaping his reality. It could be argued that the media has a responsibility to share information, contributing towards shaping and upholding a shared sense of calendrical, linear time (Anderson, 1991). Audiences are brought together as an imagined community (Anderson, 1991) through the replication of Jo's passing in digital and printed mediums across physical and metaphysical spaces. In addition to Gary pushing against the media's temporal framework, consisting of a fleeting coverage of events, he attempts to reconstruct the temporally situated

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3 narratives to form a shared understanding of Jo's death across  
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5 metaphysical and physical spaces in New Zealand. In opposition to the  
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7 linear time-line used by media, Gary operates within process time  
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9 frequently returning to the past to reconstruct the record in the present.  
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12 Grief is prevailing and constitutes a metaphysical space in Gary's  
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14 talk, that is evidenced in his talking about Jo in order to avoid the loss  
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16 of her memory. Speaking about her exhibits a metaphysical space of  
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18 ongoing recovery illustrated through talking as a means of coping.  
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20 Gary draws on past spaces and temporalities in the form of memories  
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22 and brings them into the present, where they contribute to shaping his  
23  
24 realities in post-earthquake spaces. The remembrance of Jo, and Gary's  
25  
26 continued story telling about her, illustrates how assemblages of  
27  
28 memories are meta-spaces, that are tied to temporal periods and  
29  
30 geographic spaces in the past and present. Grief in this instance is a  
31  
32 temporally mobile space. Although Jo died in the early hours of 14<sup>th</sup>  
33  
34 November in her Mt Lyford home, situating her death in a static time-  
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36 space, her passing is reconstituted in multiple spaces and temporalities  
37  
38 by virtue of Gary's narratives. His storied memories constitute the  
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40 intersections between the physical site of the home, the date and time  
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42 of the earthquake and Jo's passing; these intersections establish the  
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44 entanglement of metaphysical and physical spaces and temporalities.  
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46 This entanglement highlights the mobility of loss (spaces and  
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48 temporalities), wherein grief moves across multiple physical and  
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50 metaphysical spaces and temporalities which generates a meta-space.  
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52 To illustrate the mobility of grief, the following narrative is used to  
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discuss how grief is embodied and facilitates a (re)construction of mourning.

Just couldn't get to sleep at night and it was the same dream that woke me up...it stopped me from getting to sleep...I could feel her, and that's part of my dream, I could feel her hitting me on the back on the way as she fell down (Gary)

The recurring dream disrupts temporal structures of sleep and awake hours, reflecting how trauma and embodied metaphysical spaces, in this instance, the dream, move between the two temporal spaces of night and day. The metaphysical space of trauma, constituted as a recurring dream, can be situated in clock-time (Hägerstrand, 1970), evidenced by the recorded time (14/11/16 12:02am) of when the trauma initially occurred and the physical spaces (North Canterbury) where trauma was experienced. The returning dream also reflects process time (Davies, 1994), exemplified in the ways the vision disrupts other metaphysical spaces, such as sleep, and how it repeatedly links to the time-space of when the trauma occurred. It can be suggested that accounting for the duration of the dream, the effects, such as disrupted sleep, and recurring thoughts of the vision would be problematic (Davies, 1994). It is therefore important to recognise how meta-spaces, like trauma can unintentionally move into the day-to-day lives of individuals.

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As substantiated in Gary's experience, trauma can be mobile, and move across spaces and times, prompting the re-experiencing of psychological pain and distress through the body (Coddington & Micieli-Voutsinas, 2017). Gary experiences what Coddington and Micieli-Voutsinas (2017) call outward aftershocks of trauma where trauma is (re)produced and rebounded through time and space from the initial moment of the traumatic event, in a complex and non-linear path. This reproduction is embodied, as the body acts as a space in which the trauma is recreated, and as Adams-Hutcheson (2017) contends, bodies have no control in how and when experiences are retrieved and relived.

Coddington (2016) characterises trauma as constructing unexpected and uncontrollable flashbacks to the past which defy geospatial and temporal logic. Distressing events leave psychological marks on the body and within the physical space where the trauma initially occurred, thereby changing feelings and relationships with that space (Coddington & Micieli-Voutsinas, 2017). Gary explained in his interview: "I went through a really bad patch, I didn't want to go back there [the house where Jo died]. Every time I'd walk through the door I'd think of Jo." Stating that he went through a "bad patch" implies a spatiotemporal moment that was particularly challenging for him. The house is a physical space, but the memory of what happened can be understood as a metaphysical space that crosses over into the physicality of the home, creating a meta-space, shaped by multiple overlapping spaces. Analysis of Gary's talk suggests that he did not want to engage with the metaphysical space that was shaped by the

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3 painful memory. His experience returning to the house further  
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5 illustrates the unity of time and space. The complexities pertaining to  
6  
7 the intersections between home (physical and metaphysical space) and  
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9 the earthquake will be explored in more depth in the following section  
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11 by drawing on the socialisation of gender to demonstrate the role of  
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13 social relations in the construction of metaphysical spaces.  
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#### 19 4.4 The Organisation of Gender in Space and Time

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24 Researching gender roles in disaster highlights how within Western  
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26 European society, women's work is often confined within private  
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28 spaces, while men's roles are commonly undertaken within the  
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30 community (Morrow & Enarson, 1996). Gender identity can be  
31  
32 referred to as constructed masculine and feminine meta-spaces, formed  
33  
34 by contextual ideas about gender performativity and roles, that shape  
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36 individual disaster experiences. Lewis's and Oliver's accounts of the  
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38 immediate aftermath of the earthquake reproduced below illustrate the  
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40 notion of gendered meta-spaces.  
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44 Both men talk about driving into low lying coastal areas, in  
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46 anticipation of tsunami, to check on family and help with evacuation  
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48 efforts. Their comments about ensuring that their family members were  
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50 safe, speak to how metaphysical spaces of family and response  
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52 intersect with gender roles that are shaped by hegemonic masculinities  
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54 (Tyler & Fairbrother, 2013).  
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Our house was damaged and so getting my partner and my children out of the house and we went to a friend's place which was at much higher ground (Lewis; 45- 54)

Who's at home looking after all the families and giving us permission to go and do what we need to do?...Well I couldn't have a clear mind. If I wasn't satisfied that my wife was doing...I couldn't have functioned well (Oliver; 45-54)

Family is a metaphysical space that could constrain actions, if men were not confident that their families were safe. In this instance, the metaphysical space of family shapes Lewis and Oliver's decision to respond. Oliver's statement suggests that women undertaking childcare provides men with the spatial and temporal mobility "to go and do what [they] need to do." His narrative reflects on how people's disaster time-spaces can depend on social relations and gender roles (Davies, 2001; Massey 2005; Parkinson & Zara, 2016).

Oliver's quote indicates the metaphysical spaces of morality and masculinity overlap and shape, the space of family and meta-space of response. Men craft time-spaces in relation to understandings of masculinity, demonstrated in Oliver and Lewis gendered responses. Process time manifests in the ways temporalities and spaces simultaneously move, exemplified in the immediacy of their earthquake/tsunami response and reflections on decision making following the earthquake.

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Responding to a tsunami depends on decisions and actions, leaving little time to process potential consequences. Lewis reflects on the decision he made to leave his family and drive into tsunami zones, as follows:

...good friend of mine...we both went into town and we had a discussion afterwards you know, actually the decision we made to do that wasn't a sound decision because we put ourselves at risk. The reality is that we probably should have waited several hours...So that's something I've actually thought about quite a bit afterwards. So that's something we need to take into consideration next time (Lewis; 45-54)

Lewis's remark that he and his friend had spent time considering their decision implies possible metaphysical spaces of contemplation, learning and regret. Thus past choices constitute metaphysical spaces that move into future spaces. His comment infers that driving into tsunami zones was a bad choice, and if another tsunami was to occur, he would give more consideration to the risks before making a decision to respond. Lewis's talk could also suggest that immediately after the earthquake, the meta-spaces of urgent response was dominant. As time passed, that space has reconstructed as a space of reflection. Thus, the decision to drive to the coastline was initially constructed as rational. However, time provided perspective reshaping Lewis's view that his choice as being irrational and disregarded the metaphysical space of



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3 risk. Their narratives capture how notions of masculinity and gender  
4 roles play out predisposing men to undertake risks in disaster  
5 responses. Lewis's narrative also speaks to the prospect of future  
6 earthquakes in Aotearoa New Zealand. The likelihood of experiencing  
7 multiple earthquakes was canvassed in several interviews and will be  
8 discussed in more detail in the subsequent section.  
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#### 19 4.5 Overlapping Earthquake Experiences

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24 New Zealand has experienced significant seismic events including  
25 the Canterbury earthquake sequence (2010-2011), the Seddon  
26 earthquake (2013) and the Kaikōura/Waiiau earthquake (2016). Several  
27 participants spoke of enduring more than one earthquake and how they  
28 cope living in seismic environments. In this section, Edward's story,  
29 which details the experiences of two earthquakes, is analysed to  
30 illustrate how multiple spaces relating to two earthquake events  
31 intersect and overlap in day-to-day realities.  
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42 Before the interview, Edward disclosed that he and his family  
43 moved from Christchurch following the February 2011 Canterbury  
44 earthquake. Their business had significant damage and liquefaction,  
45 they were in debt to their bank and Inland Revenue and they have on-  
46 going issues with insurers nine years on, resulting in financial hardship.  
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48 At the time of interviewing, Edward was still repairing their  
49 commercial property in Christchurch. Edward and his family had  
50 experienced substantial disruption to their lives which influenced their  
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3 decision to move two hours North of Christchurch in the hope of  
4 evading earthquakes. Soon after they relocated, the Kaikōura/Waiiau  
5 earthquake struck, resulting in damage to their new home . Throughout  
6 Edward’s interview, he moved between both earthquake experiences.  
7  
8 His earthquake stories continue to be shaped by stressors, evidenced in  
9 speaking about his business in Christchurch below

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12 We were asked to do...make safe repairs on [the business] and  
13 I did a lot of the work myself...we done it at night because we  
14 were under pressure to keep the place open...but it was a  
15 struggle. Because every night you’d deconstruct then  
16 reconstruct for the next morning. Working through the night.  
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18 But the thing was [the insurance] decided... they’re not going  
19 to pay. It was about \$50,000 worth of a work (Edward; 65-74)  
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38 In addition to insurance stresses following the 2011 Canterbury  
39 earthquake, Edward is facing similar disputes post-Kaikōura, he states:  
40 “we’ve got contents insurance for about \$8,000, and they won’t  
41 settle...We’ve not got drinking water at home, haven’t for over two  
42 years. We have to bring it in from Christchurch in containers.” Edward  
43 discloses some of the challenges in the aftermath of both disasters,  
44 which whilst being considered ‘over’, continue to produce difficulties.  
45  
46 His time-space is continually restructured by the Canterbury and  
47 Kaikōura/Waiiau earthquakes in multiple temporalities and mobilities,  
48 exemplified in routinely transporting water from Christchurch to their  
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3 rural property 130kms away. This time costly work is a consequence  
4  
5 of delays pertaining to institutionally slow processes with insurance,  
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7 resulting in conflict regarding insurance not covering damage costs for  
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9 their water tank. Throughout his interview Edward references both  
10  
11 earthquakes when describing multiple temporal and spatial mobilities  
12  
13 across metaphysical and physical spaces pertaining to disruption. In  
14  
15 part, like Gary, his recovery has been shaped by external institutional  
16  
17 meta-spaces. While Edward's objective has been to repair his business  
18  
19 and home, it is evident that this process is not temporally linear. Process  
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21 time (Davies, 1994) is reflected in Edward's accounts, as he attempts  
22  
23 to navigate the physical and meta-spaces of response and recovery,  
24  
25 over which he has little control. Hägerstrand's (1970, 1985) notion of  
26  
27 time-geography can also be drawn on to illustrate how ongoing  
28  
29 processes and insurance bureaucracy create constraints on the physical  
30  
31 and meta-spaces of recovery. The meta-space of recovery is shaped in  
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33 this instance by metaphysical spaces of insurance and financial  
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35 restrictions.  
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42 The meta-space of recovery following each earthquake intersect,  
43  
44 while Edward simultaneously attempts to navigate the metaphysical  
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46 and physical spaces of work and home. The space in which property  
47  
48 repairs are negotiated, constructs metaphysical spaces in relation to  
49  
50 time; demonstrated in the ways property damages and financing repairs  
51  
52 occupy significant and overlapping times and spaces. In other words,  
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54 the metaphysical spaces that construct the meta-space of recovery have  
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56 consumed substantial amounts of time in Edward's day-to-day life.  
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Edward's talk also reflects gendered divisions of labour between himself and his wife. Edward was responsible for repair labour and organising finances, while his wife took primary responsibility for caregiving. Their roles align with Western European gender roles associated with heterosexual relationships. Coupled with the demands of physical and metaphysical work, handling multiple damaged properties, Edward and his wife had to manage the health of their son who has Asperger's syndrome and had experienced five seizures following the Canterbury earthquake sequence. Edward's experiences demonstrate how spaces of health and family are constituted within his earthquake story. Both earthquakes are situated separately in clock time, however continue to intersect in Edward's day-to-day reality. The earthquake events can be regarded as meta- and temporal spaces that consist of multiple metaphysical spaces and temporalities. Edward's story exemplifies how spatial and temporal consequences of the earthquakes continue to impact his day-to-day existence.

## 5. Conclusion

Approaching space as physically bounded and quantifiable fails to recognise the embodied relationship between social structures, human interaction and differences in space and time. Principles of time-geography, while helpful to human geography, do not adequately explain the complex multiple spaces and temporalities of human experience (Rose, 1993). In a similar vein, disaster management and scholarship focuses on fixed timeframes and physical spaces whilst

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neglecting the long term unstable day-to-day challenges of individuals and communities. This article has drawn on conceptualisations of multiple physical and metaphysical mobilities, spaces, meta-spaces and temporalities to provide understandings on the complex processes and interactions that shape the experiences of those affected by disaster.

Extracts of rural men's stories reproduced in this article, exemplify the ways disasters disrupt and shift life trajectories. The theoretical perspectives of metaphysical spaces, time and mobilities illustrate the multiple physical and mental projects that individuals manage in order to maintain well-being in their post-disaster environments. Many participants continue to contend with daily challenges two to three years post-earthquake, and in Edwards case, nine years following the Canterbury earthquake. The mobility of rural men's experiences was highlighted through examining how multiple metaphysical mobile temporalities and spaces underscore their narratives. Analysis of participants' talk illustrates that disasters constitute social conditions that are unfinalised in time and space, move to intersect with physical and metaphysical space(s), and act across scales and temporalities. An argument is advanced, that complex embodied, financial and psychosocial spaces which encompass stressors, may hinder recovery, damage wellbeing and change how mobility, time and space are perceived. Taking metaphysical elements into consideration when developing and conducting research can enhance understandings about how earthquake-induced stresses manifest in the day-to-day realities of those affected. This research also showcases how problematic spaces

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3 and temporalities may pose challenges for rural men working to  
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5 navigate their post-disaster environment and recovery.  
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