Varieties of embodied knowing: an ethnographic study of Mixed Martial Arts

Anu M. Vaittinen

A Thesis submitted for the Degree of Doctor of Philosophy

School of Geography, Politics and Sociology

Newcastle University

June 2014

ABSTRACT

This PhD explores the embodied practices and experiences of Mixed Martial Arts (MMA) practitioners and coaches with a specific focus on exploring the process through which different varieties of embodied knowing are developed. A contemporary full contact combat sport, Mixed Martial Arts is an amalgamation of various disciplines of unarmed combat sports and arts. Over the course of this thesis, I develop an understanding of the processes and varieties of experiential knowing that are, I argue, central to MMA. The hybrid and evolving nature of this contemporary sport enables me to draw analytical attention to the ongoing craft of developing experientially ways of knowing. I demonstrate how embodied ways of knowing MMA are developed in practice through experience and in reciprocal relation to the surrounding environment. I attend in particular to the interplay of the corporeal, perceptual, social and intersubjective constituents of these processes. My analysis is guided by an interdisciplinary and phenomenologically oriented framework which draws from the phenomenology of Merleau-Ponty, anthropological studies on 'ways of knowing', physical cultural studies and sociology of embodiment. This study reveals how practitioners engage with processes of enskillment and body pedagogies as central elements to understanding the ways in which skills are developed for MMA. By exploring the practices of MMA coaches in depth, I provide analytical insight into coaching as a distinct skill and how this is developed. Thus this study extends the understanding of knowing MMA beyond skill through a consideration of the experiential ways of knowing of pain and injury, exploring how tacit and explicit understandings of different kinds of pain are developed through practice in interactions with other practitioners and coaches. I examine the intertwining of injury stories, experiences and practices shared between fellow mixed martial artists and coaches to offer insight to how the management, treatment, negotiation and the culture of training whilst injured develop into specific ways of knowing injury. My findings contribute substantially to an emerging body of work that has begun to explore the potential of phenomenology, for study of embodiment, physical culture and, I argue, to how ways of knowing sport are achieved in practice. My analysis is based on insider participant-observation data collected during a twelve-month period of ethnographic fieldwork in two MMA gyms in the North-East of England, complemented by nineteen semi-structured interviews with non-elite recreational MMA practitioners, fighters and coaches.

ACKNOWLEDGEMENTS

The biggest thank you goes to the mixed martial artists and coaches in the Warriors and Scrap Pack gym: without you this project would have not been possible. Thank you for working with me, sparing your personal time to talk to me and not getting frustrated by my endless questions. Also, special thanks go to the gym owners who allowed me to conduct field research in their facilities.

Words cannot describe the appreciation I have for my partner Ken. I would like to thank him for his unyielding support and encouragement through the ups and downs of my PhD studies; you have kept me sane and grounded. Thank you for being patient, for listening and most of all for being there when my determination and faith in my work may have faltered. Thank you for always believing in me.

I want to thank my supervisors Dr. Monica Moreno Figueroa, Dr. Cathrine Degnen and Professor Peter Phillimore for the guidance, feedback and support throughout the project.

I also wish to thank my parents and rest of my family for their continuous encouragement and support.

Finally I wish to thank the School of Geography, Politics and Sociology for providing funding for this project.

TABLE OF CONTENTS

Abstract	i
Acknowledgements	ii
Chapter 1: Introduction	1
Mixed Martial Arts (MMA): brief introduction	3
MMA and the sociological imagination	7
Embodying sociology: re-connecting with lived-experience	13
Sociology of sport and embodiment: issues and developments	16
Structure of the thesis	20
Chapter 2: A Phenomenologically Informed Journey into Embodied ways of Kno	_
Introduction	
The Phenomenology of Merleau-Ponty	
Embodiment and lived experience	
Primacy of perception and sensory media	
Intentionality and motility: Understanding our capacity for learning and	
innovation	33
The spatial and social situatedness of being in the world	35
Ways of knowing: Making sense of embodied practice and experience	38
Knowing skill	41
Knowing pain	46
Knowing injury	50
Concluding thoughts	54
Chapter 3 - Methodology: Foundations, practices and reflections	55
Introduction	55
The foundations: participant observation in the study of experience, practice embodiment in MMA	
The fieldwork process and practices: on doing ethnography	63
In preparation for the field: research ethics and negotiating access	63
In the field	69
On fieldnotes and informal conversations	71
Making sense of the field: data analysis and writing	76
Critical reflections: gendered positionality and tensions of insider research	
Gender and the positionality of the researcher	80
Tensions and challenges of being an insider	84

Concluding thoughts	87
Chapter 4: Enter the MMA gym	89
Introduction	89
Inside the MMA Gyms	90
The WOLF Pack Gym	91
The Warriors Gym	93
The social fabric of the MMA gym: The community of mixed martial artists	94
The Wolf Pack	97
The Warriors	100
Doing MMA: Practices in the Wolf Pack and Warriors Gyms	105
Stand up, clinching, takedown and the ground	105
Conclusions	113
Chapter 5 - Ways of Knowing skill in MMA: enskillment and pedagogy in action	ı115
Introduction	115
Embodied Enskillment: Crafting the movement skills and capacities for MMA	1 116
Educating the senses: skilled vision, body feel and kinaesthetic awareness in motion	
Pedagogy as a skilled process: embodied skill of an MMA coach	
The intersubjective constitution of MMA skill	
Concluding thoughts	
Chapter 6: Experientially grounded, embodied ways of knowing pain in MMA	
Introduction	148
Skilled ways of knowing pain	150
Body pedagogies of pain	151
Enskillment and pain: Skillful production of and resilience to pain	157
Learning to negotiate experiences of pain in practice	163
Knowing when to suppress pain	
Learning to express pain: Body language, facial expressions and swearing	
Learning how to talk about pain	
Pain as friend and foe: Situated meanings of pain in MMA	170
On skill, intentionally inflicting pain and 'violence'	172
Gender and ways of knowing pain	
Concluding thoughts	
Chapter 7 - Experiences and stories: developing situated ways of knowing inju	ıry in
and risk in non-elite MMA	179
Introduction	
When injury strikes: experiences of incurring an injury	182

Learning to deal with injuries	189
Knowing how to train whilst injured in practice: experience and stories	193
Ways of knowing injury-related risk - situated negotiations of injury expe	riences
	203
Conclusions	208
Chapter 8: Conclusion	210
Uncovering the dynamics and processes of embodied varieties of knowing	: for
MMA and beyond	210
Some concluding thoughts on methodology, limitations and avenues for fu	rther
research	215
References:	219
Appendices	

CHAPTER 1: INTRODUCTION

'To unravel more of the processes and dynamics of the human varieties of knowledge, it seems that we have an unending program of discovery and analysis ahead of us.' (2002, p. 11)

This PhD thesis presents a 12-month ethnographic¹ investigation of two MMA gyms in the North-East of England: the Wolf Pack Gym and the Warriors Gym². The main aim of the study was to explore the practices and experiences of non-elite mixed martial artists and coaches. This was broken down to three general research issues that guided the project: 1) To explore how embodied experience and practice play a role in the constitution of different varieties of experientially grounded, situated, sensory and intersubjectively constituted ways of knowing and 2) To develop an understanding of how the processes and dynamics of these different varieties of embodied knowledge unfold, and 3) to investigate how the phenomenology of Maurice Merleau-Ponty combined with an anthropological 'ways of knowing' approach can contribute to analysis, and a theorising of these processes through which embodied sporting knowledge is accomplished.

Throughout I refer to the experientially grounded and embodied skills, shared understandings and the ability to utilise them in action as 'ways of knowing'. I do this because the 'Ways of Knowing' perspective more accurately expresses the embodied, situated, processual, and constantly evolving nature of sporting knowledge (Harris, 2007a), which Allen-Collinson (2008) refers to as 'knowing in action'. The main argument presented in this thesis is that a phenomenologically oriented theoretical frame, such as the one utilised here, can contribute to a systematic theorising and understanding of the processual, fluid and dynamic nature and the different varieties of embodied knowing within the field of physical culture and beyond. It is crucially important that the terminology used reflects these key concerns.

¹ The study utilises a phenomenologically oriented interdisciplinary analytical framework in combination with ethnographic research design, however I wish to note here that I do not employ the 'phenomenological method' as developed by Husserl. The choice of research design will be elaborated on in the first part of Chapter 3

² These names I use to refer to the two fieldwork locations in Thesis are pseudonyms designed to protect the anonymity of the participants. Furthermore, the city in which these gyms are located is not named for the same reason, because it could make the settings identifiable. I discuss the rational for this in more detail in Chapter 3

This study offers an insight to this contemporary combat sport phenomenon from the perspective of those involved in the sport as practitioners and their experiences, practices in the local non-elite MMA gym, a perspective which has been examined to a limited degree by the existing academic literature. Throughout this thesis I illustrate and analytically discuss how skills and bodily capacities are developed in practice and constantly crafted on through enskillment and body pedagogies, both equally crucial constituents of ways of knowing MMA. This also reveals how knowing a sport extends beyond knowing skill, by examining how distinct ways of knowing non-injury related pain and injury are developed through experience, practices, interactions and stories in an active relationship with the surrounding space of the local MMA gym and wider gendered discourses of pain, injury, and risk in sport. Overall this enquiry contributes to the developing literature, pioneered by Hockey and Allen Collinson (2007), seeking to explore the potential of phenomenology to systematic theorising and analysing of sporting embodiment and lived experiences of sporting practitioners. It extends the existing work, demonstrating the insights gained and analytical purchase of the phenomenology of Merleau-Ponty (1962) combined with the phenomenologically guided anthropological 'ways of knowing' perspective, as an analytical stance through which, I argue the promise of phenomenology to study of sporting embodiment can be further explored. This attends to a gap in the existing literature on sporting embodiment where the process and pathways through which sporting activity is achieved are addressed to a limited degree (Allen Collinson, 2008).

The idea of this project was conceived a little over six years ago, when I first became involved in MMA training. It was 2007, during my final year as an undergraduate, that I first had the opportunity to try MMA. I was particularly intrigued when I heard that MMA combined a variety of martial arts and combat sports into a complex hybrid form of bodily knowledge unlike anything I had ever seen before. Hence, when the opportunity presented itself, I did not hesitate to try it, despite being the only woman in my gym to try MMA at the time. I was drawn to the intricacy and constantly evolving nature of MMA that the coaches and practitioners engaged in during the everyday training practices in the gym, as well as the challenge of learning the complex combination of skills that MMA entails. I was also impressed by how the social fabric was interwoven into the learning and coaching practices, techniques, drills and movements and how these continuously evolved through practice. It was ultimately my

interest lived experience and embodiment combined with my personal involvement in MMA that sparked my sociological imagination.

In the remainder of this introduction I discuss how MMA transformed from a personal passion into an academic endeavour that resulted in this PhD project, guided by the three key research issues outlined on page 1, I address three key concerns which underpin the rationale for this study: 1) what is MMA and how has it so far inspired the sociological imagination, and 2) what can MMA do for the sociology of embodiment, theorising and analytically grasping the processes through which experientially grounded, varieties of embodied knowing are developed. This outlines the first part of the rationale with I continue to elaborate on in Chapter Two, and 3) I set the scene for the theoretical rationale by introducing the key debates this thesis engages with in sociology of body and embodiment, and study of sport and physical culture in particular. In the final part of this chapter I provide an overview of the thesis chapters.

MIXED MARTIAL ARTS (MMA): BRIEF INTRODUCTION

In its contemporary form, MMA, known to the uninitiated as 'cage fighting', is a hybrid, full contact, combat sport that draws components from multiple disciplines of unarmed combat sports³: Western boxing, wrestling, judo, thai boxing (muay thai), karate, shoot fighting and Brazilian jiu-jitsu, amongst others (Mayeda and Ching, 2008; Sanchez Garcia and Malcolm, 2010; Spencer, 2012b). The practices of MMA are based on the idea of two practitioners engaging in unarmed combat that can take place standing up, in a clinch or on the ground. The corporeal know-how of MMA calls for the practitioners to develop an understanding and the ability to apply a multitude of skills in action against training partners or opponents. A basic categorisation of practices that are a legitimate part of MMA include, 1) strikes (punches, knees, kicks and elbows) directed at the opponents head, limbs and body; 2) control positions and pins where one opponent controls the other by taking them down onto the floor, pinning them down or otherwise controlling their body with theirs; 3) submission techniques such as chokes, joint locks and arm and leg bars designed to make opponent submit through pain compliance, unconsciousness or breakage, unless the training partner

³ Unarmed, meaning without weapons, as opposed to armed combat sports such as; Kendo, Filipino Stick Fighting or Eskrima. These arts utilise weapons such as wooden swords, sticks or knives as a part of their arsenal of skills and knowledge.

signals submission verbally or by tapping out⁴ (UFC, 2001; Van Bottenburg and Heilbron, 2006; Mayeda and Ching, 2008). MMA terminology used throughout this Thesis can be found in the glossary (Appendix A). MMA contests take place in a cage – a metal mesh covered by rubberised vinyl – usually over three or more rounds of 3-5 minutes, and are supervised by a referee. The aim of a MMA competition is to overcome the opponent using effective striking, grappling and cage control. A contest can be won via submission, knockout or a technical knockout (TKO)⁵. The contestants are allowed to wear shorts, fingerless 8oz MMA gloves (see glossary), mouth guard and a groin protector⁶.

The above description refers to the contemporary format of MMA that differs from the initial form the sport took when it emerged in the early 1990s in the United States, under the rubric of 'No Holds Barred' (NHB) (Mayeda and Ching, 2008). This is not surprising as historically, a degree of hybridization has always existed within martial arts and combat sports in the form of adapting and borrowing elements of different fighting styles in order to develop a more effective form of combat (Jones, 2002; Nakayama and Maguire, 2006; Yokoyama, 2009). Indeed, the more modern forms of what can be defined as traditional martial arts are derived from the different Far Eastern arts of war that had developed into practices more suitable for peace times. Sanchez-Garcia and Malcolm (2010) examine the evolution of combat sports in the 1900s and observe how the Eastern and Western disciplines developed in relative isolation until Japan opened up to the West. Increased comingling between the East and West facilitated these developments and the ideological tensions between amateurism and professionalism also shaped the process. Consequently some arts focused on kata (form), discipline, physical and spiritual development (Kohn, 2007; Yokoyama, 2009) whereas other arts, such as Judo, boxing and wrestling, became more competitively oriented Olympic sports (Sheard, 1997; Hamaguchi, 2006; Guerandel and Menneson, 2007).

The roots of the contemporary form of MMA can be found in 'total fighting' that emerged in Japan, in the 1950s (Yokoyama, 2009) and in Brazil in the 1930s in the

⁴ An expression of submission that can involve literally saying, "I tap". Alternatively, a tap can be signaled by physically tapping the floor or the opponent to ask them to let go of the submission hold

⁵ Technical Knockout is ruled when a referee stops the contest when one of the contestants is no longer able to intelligently defend themselves.

⁶ For more details see, UFC Rules and Regulations: http://www.ufc.com/discover/sport/rules-and-regulations

form of Vale Tudo⁷ (Howes, 1998; Gentry, 2001; Mayeda and Ching, 2008). The first modern MMA contest, 'The Ultimate Fighting Championship' (UFC) took place in 1993 in Denver, Colorado. Placing two contestants inside a cage with no time limits, rules or referee pushed the limits of acceptable sports contest. Early NHB contests elicited a highly negative response from politicians, the boxing community and traditional martial artists (Gentry, 2001; Mayeda and Ching, 2008). These groups campaigned to ban the sport in the US, and were successful in a number of states (Van Bottenburg and Heilbron, 2006; Downey, 2007a; Sanchez Garcia and Malcolm, 2010). The controversial nature of the sport almost led to its demise more than once during its relatively short existence. However, by making changes to the regulatory structure and increased marketability of the sport, it gradually began to gain momentum (Mayeda and Ching, 2008). During this time the name NHB began to subside in favour of MMA because it no longer reflected the nature of this combat sport that in fact barred a wide range of holds.

Since the sport emerged, the regulatory structure that guides MMA practice has gone through some significant changes. Many authors on MMA note that these changes have played a role in the rise of the sport into the mainstream sports world (Mayeda and Ching, 2008; Snowden, 2008b; Yokoyama, 2009)⁸. One of the most central features of the evolution of MMA has been the transition from the style vs. style NHB contests of the early days, where practitioners from different arts faced each other in a contest with no time limits and only few rules⁹ (Howes, 1998; Van Bottenburg and Heilbron, 2006). The number of rules has increased markedly as MMA had to fight for its survival against those who were determined to have it banned. These changes resulted in the introduction of time limits, referees and weight categories. Furthermore, illegal techniques, the use of which result in disqualification or points reduction, were specified¹⁰ (Van Bottenburg and Heilbron, 2006; Mayeda and Ching, 2008).

Contemporary MMA, which emerged as a result of these developments, was more than the sum of its individual parts. Where the original arts focused and limited their

⁷ Portuguese for "Anything goes"

⁸ For a comprehensive review of the technical evolution of NHB into MMA, please see Downey, G. (2007a) 'Producing pain: techniques and technologies in No-holds barred fighting', *Social Studies of Science*, 37(2), pp. 201-226.

⁹ The early contests only banned hair pulling, biting and eye gouging and there were no disqualification procedures or sanctions in place for breaking these rules.

¹⁰ For a comprehensive review of the rule changes in early MMA see Howes, M. (1998) *The Civilising of the Ultimate Fighting Challenge*. Conference Paper. University of Aberdeen.

practices to the ground or to the stand up, or by excluding certain strikes, MMA evolved to combine them into a unique mix, and the sport continues to evolve (Downey, 2007a). As Downey (2007a) has observed, the practitioners of this new hybrid sport adapted their skilled practices to the changing frames of reference provided by the changing rule structure. Many of the early MMA practitioners and coaches have backgrounds in arts that do not include the combination of skills and knowledge required for MMA. Despite the developments, there is still no international governing body for MMA, but the sport is governed by commercial promotions with some exceptions¹¹ and has developed in close relationship with pay-per-view television and the entertainment industry (Downey, 2006b). Events are regulated by the Nevada State Athletic Commission which is the body that also regulates professional boxing. This has influenced the development of MMA as the event organisers have had to introduce changes and develop the sport to keep it commercially viable, and these have enabled the UFC business model to develop into a global operation.

In the United Kingdom, MMA was initially slow to develop and the boxing community and promoters mounted aggressive public opposition to MMA calling for the ban on this new sport (Dirs, 2000; Dirs, 2005; Smith, 2007b). MMA gradually began to gain popularity and a participant base by connecting via pay-per-view TV, the video market and the Internet (Howes, 1998). Unlike in the US, where many fighters had a wrestling background, many of the early fighters from the UK were frequently from a boxing or kick boxing background (Buffong and Downes, 2009). Early UK promoters organising MMA events were small in scale and continuously struggled in the absence of financial support and sponsorship (Snowden, 2008a). UFC organised its first event in 2000, which took place at The Royal Albert Hall. As a result of the success of British fighter, Ian 'the Machine' Freeman, the sport experienced a renaissance and a further rise of British promotions such as Cage Rage, BAMMA and Cage Warriors (Snowden, 2008a; Buffong and Downes, 2009). In 2007, the success of another British fighter, Michael Bisping, who won the US reality TV series *Ultimate Fighter* ¹²paved the way for other fighters and, subsequently, the development of a more mainstream popularity in the UK (Snowden, 2008a). The past two decades have witnessed a steady rise in the popularity

_

¹¹ Finland is one of the few exceptions, as the country has had a national governing body for MMA since 2006 which regulates competitions, weight categories, rule framework and drug testing. For further information see: http://vapaaottelu.fi (web page only available in Finnish)

¹² Ultimate Fighter is a reality TV-series where the contestants compete in teams under two coaches and individually for a fight contract with the UFC. During the series the contestants live together in a house in the fashion of other reality TV-series such as Big Brother.

of MMA around the world with UFC events organised in North-America, Europe, Australia, Asia and South-America (Mayeda and Ching, 2008; Sanchez Garcia and Malcolm, 2010). In recent years, MMA has superseded boxing, baseball and the American football in financial revenue and in 2008 Forbes magazine estimated that the economic value of the sport was over 1 billion US dollars (Miller, 2008) Broadcasting deals with mainstream sports broadcasters such as ESPN, FOX, and BT Sport in the UK, have also played a significant role in raising the profile of MMA as a legitimate fighting sport (Skretta, 2009; Davies, 2013).

MMA AND THE SOCIOLOGICAL IMAGINATION

Since its emergence, there has been relatively limited attention to this contemporary sporting phenomenon as a subject of social scientific enquiry, although in recent years academic interest in MMA has begun to emerge (Van Bottenburg and Heilbron, 2006; Downey, 2006b; Downey, 2007a; Hirose and Kei-ho Pih, 2009; Spencer, 2009; Sanchez Garcia and Malcolm, 2010; Green, 2011; Vaccaro *et al.*, 2011; Spencer, 2012a; 2012b). Here I offer a brief critical overview of the handful of existing studies because they provide an important element of the rationale for conducting this study and to the way in which it was conducted. For the time being, I focus on the gaps in the existing literature, but I also discuss how this has implications for the methodological rationale in more detail in Chapter 3. Because earlier studies on No-Holds-Barred (NHB), the predecessor of MMA utilise the term NHB, both MMA and NHB are used in this discussion interchangeably as used by the respective authors.

The first, published academic discussion of the sport was a paper by Van Bottenburg and Heilbron (2006). The authors examined the sport from a macro perspective as they considered the potential implications of the emergence and development of NHB against the backdrop of the socio-historical process of "sportization". Their work is informed by Norbert Elias' Figurational Sociology (2000 [1978]), an approach widely utilised in sport sociology¹³. It argues that modern sport has developed towards a more organised and less violent form of activity, whilst still providing a source of controlled excitement for audiences, following the wider civilising process witnessed by Western nation states (Elias and Dunning, 1986; Elias, 2000 [1978]). Thus on a wider societal

¹³ Sociological studies of sport have utilised this framework to make sense of the socio-historical development of a number of sports, including boxing (Sheard, 1997), Rugby football (Dunning & Sheard, 1979) and Cricket (Malcolm, 1997)

level, Elias (Elias, 2000 [1978]) argued that these developments resulted in violent impulses and activities being increasingly controlled and pushed from the public to the private sphere¹⁴. Evidently, the emergence and development of NHB challenged this perspective. Van Bottenburg and Heilbrons' (2006) argument is that sportization theory requires modification/adjustment because the locus of excitement has shifted from the activity itself to the high levels of physical contact, introducing the concept of desportization. The subsequent studies on the topic also utilised the figurational approach as a springboard to their examination of MMA. Yokoyama (2009) sought to refine the sportization thesis to understand the popularity of 'total fighting' amongst Japanese sports audiences. Whereas Sanchez-Garcia and Malcolm (2010) argue that the understanding of the audience appeal of MMA can critically be examined using Wouters' development of Elias' work and concept of informalization (1986; 2009). The implication of their investigation is that development of MMA is characterised by a tension balance between a greater self-regulation of the sport, a quest for excitement, and the organisers' search for a spectacle attracting audiences. All of these studies focus on the general development of the sport from the perspective of sports audiences rather than that of MMA practitioners and overall their findings have both complemented and sought to develop Elias' civilizing process theory and the work of Wouters (1986; 2009).

Other existing studies have taken a slightly different approach, however the focus is still on the evolution of the sport. Downey (2006b; 2007a) conducted two studies into this area. First, Downey (2006b) examined the relationship between NHB fighting and the information economy, and argues that as a result of this relationship new flows of athletic information have developed and television in particular plays a role in transmitting knowledge of fighting techniques. From this perspective televised NHB is not only a spectacle consumed passively by audiences, but is also a transmitter of instruction and information on embodied fighting knowledge that fans can actively engage with. Downey's (2007a) second study connects to his first because his focus is also on the evolution of fighting techniques, a study which is the first to use the term

¹⁴ Elias' work utilised by these figurational studies on socio-historical development of sport, engages with wider debates within sociology concerned with the boundary between public and private spheres of life, which has also been examined by a number of studies on sexuality, see for example Namaste, V. K. (2006) 'Sexuality, gender and the regulation of public space', in S., S. and Whittle, S. (eds.) *Transgender studies reader*. London: Routledge.2006; Butler, J. (2003) 'Gender trouble: feminist theory and psychoanalytic discourse', in Alcoff, L. and Mendieta, E. (eds.) *Identities: race, class, gender and nationallity*. London: Wiley Blackwell. Valentine, G. (1996) 'Lesbian production of space', in Duncan, N. (ed.) *Destabilising geographies of gender and sexuality*. London: Routledge.

mixed martial arts. He utilises Mauss' (1973) concept of body techniques to illustrate how the fighting skills are not innate and raw but in fact subject to technical refinement and innovation. More recently Hirose and Phi (2009) have examined how the contrasting striking and grappling styles within MMA are useful in illustrating the dynamic relationship between hegemonic and more marginalised masculinities. They highlight the complexity of the relationship negotiating forms of masculinity, advocating a more relational and anti-essentialist approach to masculinity, including the variation between Western and Asian hegemonic masculinities.

These studies demonstrate the emergence and development of MMA as a subject of sociological enquiry. However, as I have illustrated, above, the perspective of the MMA practitioners themselves has been addressed to a limited degree by the studies discussed above. This thesis contributes to this existing body of literature by examining MMA from the perspective of the MMA coaches and practitioners. It is illustrative of this point that to the best of my knowledge, there are only two existing ethnographic investigations of MMA: one conducted by Spencer (2009; 2012b; 2012a) and the other by Green (2011), a cultural geographer. When these studies were published, I was at the stage of data analysis and writing up. I made the decision not to read them at the time because I wanted key themes to emerge and the structure of the thesis to develop independently from these works. However, in this final thesis I connect with these authors' work further in Chapters 2, 6 and 7 in relation to my analysis of ways of knowing pain and injury. Here I first briefly consider some of the parallels and significant differences between Spencer's (2012a; 2012b; 2009) and Green's (2011) work, and this Thesis.

Green's (2011) contribution is situated outside sociology of sport and physical culture, within the field of cultural geography where study of MMA has been equally scarce. His ethnography draws from ethnographic participant observation in two MMA gyms in Minnesota, United States. Both this Thesis and Green's study share a common methodological ground in seeking to understand this new sporting phenomenon using the ethnographic method. As he was planning the study, visiting different locations and getting his first experiences of the sport, Green (2011) realised an interview based study would not be sufficient to develop a thorough understanding of it. Another point of intersection between these two studies is attention to pain within the study of MMA. In this study, Green (2011) examines the different reasons pain is attractive to MMA participants whom in essence are paying for something that subjects them to range of

painful sensations. He found that the practitioners were seduced by pain because it 1) offered them confirmation of the reality of their experience 2) provided an avenue to experience their bodies as a part of a unified self with limits and boundaries and 3) shared pain experiences offered intimacy central to development of a sense of community of practitioners.

Although the study by Green (2011) has a strong focus on practitioners' perspective, and shares with this Thesis, an interest in the role of pain in MMA. there are also distinct points of departure from the study presented here. Most significant of these differences is the disciplinary context in which it is conducted; cultural geography. Furthermore in seeking to understand the role of pain in relation to participant motivations, Green (2011) also attends to particular developments within his field, namely the growth in the use of non-representational theory (NRT) (Lorimer, 2008). This theoretical perspective has called for attention to the interconnections of embodiment, practice and affect within cultural geography, building upon the work of feminist geographers (Nast and Pile, 1998; McDowell, 1999). Green (2011) seeks to demonstrate the value of this framework for understanding the seductiveness of pain for MMA practitioners and thus contribute to this developing area of study within cultural geography, as well as to the study of MMA. An unfortunate omission in his work is the connection to the body of literature examining pain within social sciences, and sociology of health and illness in particular. However, the study is a welcome contribution to studies, which examine this new sport from the perspective of those involved, and which for long has been absent from the academic study MMA. I will connect with Green's study further in relation to the discussion on knowing pain in Chapters 2 and 6.

In contrast to Green's (2011) study, the work of Spencer and this study are not only connected by subject matter but both have sought to explore embodiment in MMA through a phenomenological looking glass. Like Spencer (Spencer, 2009; 2012b; 2012a), I have favoured the phenomenological understanding of habitus instead of the more widely-used use of the term by Bourdieu (1977). For Bourdieu (1977; 1990) habitus¹⁵ is a set of durable dispositions or habitual schemas that inform bodily action in

¹⁵ The concept of habitus has evolved since Bourdieu first introduced it in Outline of a Theory of Practice (1977). However his most recent and and definitive take on the concept is expressed in 'The Logic of Practice', where Bourdieu defines habitus as: 'Systems of durable, transposable dispositions, *structured structures* predisposed to function *as structuring structures*, that is, as principles which generate and organise practices and representations that can be objectively

its multiple forms, including movement, dress and comportment, much like the way grammar informs language (Bourdieu, 1977; Howe, 2011). It is at the nexus point between the body and the surrounding social environment. However, for Bourdieu (1990) these schemas predispose the action of agents, in other words, habitus is produced and re-produced by these structures of a particular social environment. As Spencer (2009) notes, this makes it difficult to account for transformation and innovation within social fields and of the habitus itself. In contrast Merleau-Ponty's appreciation of habit[us], allows us to understand the ability of the embodied subject to take on, as well as innovate and generate new habitual capacities. As he states in Phenomenology of Perception (1962; 143) '[habit] expresses our power of dilating our being in the world', capturing how we do not merely passively take on habits. For Spencer (2012a; b) this facilitates an understanding of the fighters' habitus and resulting identities as a lived-through process that is continuously evolving. In this study, it is equally central in developing appreciation of the processual, evolving nature of embodied ways of knowing MMA, and the role of innovation and experimentation play in these processes.

Spencer (2012b) predominantly uses the phenomenology of Merleau-Ponty (1962) and Nancy (2000) to underpin the study ontologically. He paints a picture of the sensory space of the gym and subsequently covers a wider range of aspects, which he argues are central to the fighters' habitus, including masculinity and race. However, class is distinctly absent from his analysis. Subsequently he draws from Mauss (1973) and Crossley's (2004; 2006) development of Mauss' work and concepts of reflexive body techniques (RBT's). He introduces the concept of body callusing to describe the toughening of the fighters' bodies capable of giving and taking pain and becoming capable of withstanding the demands sport places on the body (Spencer, 2009; 2012b, p. 98). Furthermore, Spencer (2012a; 2012b) also examines the connections between pain, sport injury and masculinity. I explore this aspect of his work further in Chapter 2 (p. 44) in conjunction to the review of the existing literature on sport, pain and injury. A particularly unique contribution of Spencer's study is the way he attends to emotions, homosociality and homoeroticism, which he sees as another aspect of a fighter's habitus. Spencer (2012) uses phenomenological ontology to inform his analysis of the

adapted to their outcomes without presupposing a conscious aiming at ends or and express mastery of the *operations* necessary in order to attain them. Objectively 'regulated' and 'regular' without being in any way the product of obedience to rules, they can be collectively orchestrated without being the product of the organising action of a conductor' 1990: 53)

MMA fighters' habitus, pulling away from the focus of attempting to define what 'comprises the fixed identity of the fighters to what it means to be a fighter and what it means to be male and masculine' (Spencer, 2012b, p. 32).

The most marked difference between the two studies is the context and scope: this study focuses on a UK context whilst Spencer (2012) examines MMA in Canada. Furthermore, his study has a clear focus on MMA from the perspective of the MMA fighters. In contrast, I offer an account in a non-elite context, exploring the experiences of MMA practitioners (fighters and recreational participants) and coaches, predominantly focusing on the practices and experiences in the gym rather than in the competitive arena. As I have noted above, the majority of the existing academic studies of this sport has focused on the macro aspects of MMA. Of course, each ethnographic project generates a unique body of data, but some of the differences between these two studies also stem from the way phenomenological approach is utilised. As I note in the above paragraph, Spencer (2012b) has used a phenomenological ontology and the concept of habitus to develop an understanding of what it means to be a fighter, as a lived through structure that is amenable to change, seeking to destabilise fixed categorisations of identity. In contrast, in this thesis I utilise the phenomenology of Merleau-Ponty (1962) in combination with an anthropological 'ways of knowing' perspective. This illustrates another capacity of phenomenological approach for developing an understanding of the fluid processes through which experientially grounded diverse ways of knowing are developed as lived through, situated and intersubjective. Furthermore, analytically it encourages a processual understanding of sporting knowledge as something that is not fixed but evolving and dynamic and not reducible to a set of body techniques. Both this study and that of Spencer (2009; 2012b; 2012a) demonstrate in different and unique ways the promise of phenomenology called for by Allen Collinson (2008; 2009) to grasp lived experience and embodiment within sport and physical culture.

In this thesis I also argue that MMA, and especially, the hybrid, evolving nature of the sports is particularly helpful in drawing analytical attention to the fluid, processual nature of experientially grounded, embodied ways of knowing. I consider the relevance of this to the key sociological concerns around body and embodiment and how these are reflected in the concerns of sociological study of sport and physical culture further in the following section.

EMBODYING SOCIOLOGY: RE-CONNECTING WITH LIVED-EXPERIENCE

This thesis, in which the aim is to explore embodiment, lived-experiences and practices of mixed martial arts practitioners and coaches, is situated with existing literature and engages with some key debates within sociology of the body and embodiment in general, and sociology of sport in particular. Here I set the theoretical scene by introducing the wider disciplinary context of this study and briefly examine the challenges and limitations that have characterised this literature, which is where the origins of the rationale for the focus on embodiment within this study stem from. I also discuss the debates on the value of phenomenology for the purpose of dealing with the 'elusive body' and to the development of a more embodied, 'carnal' sociology (Crossley, 2001b). Finally, I narrow the focus down to the specific context of the sociology of sport and highlight how these wider debates, and the use of phenomenology, have been connected with and developed within this sub-discipline.

The past three decades have witnessed a proliferation of studies examining the body and more recently the importance of embodiment within social and cultural research (Turner, 1984; 2000; Shilling, 2003). This thesis connects with key debates within this field and, in particular, with developments that have sought to bring embodiment and lived experience to the forefront of sociological analyses of the body (Ahmed, 2004; Shilling, 2007a). Turner (2012, p. 1) states that interest in the body is, 'an intellectual response to fundamental changes in contemporary relationship between bodies, technology and society'. Shilling (2003) discussed the following changes: a) identifying the body as increasingly significant to identities, b) the second wave feminist interrogation of the sex/gender binaries, c) Foucauldian analyses of body as an object of governance and control, and d) technological advances which have highlighted the uncertainty about the reality of the body, challenging the boundaries between natural and the social (Haraway, 1991; 1999). Outside sociology, in anthropology, the body has long contributed to its own academic field - body studies - whereby the body is examined as a method of classification; understood as text, as symbol and habitus; thought through to question metaphors, power and difference (Strathern, 1988; Mascia-Lees, 2011).

The resulting approaches have been wide-ranging and have approached the body in a variety of ways. Initially, Turner (1984) sought to explore how societies focused on the control and management of the body, a line of enquiry developed in the work of

Foucault (1977), which sociological approaches have widely drawn from. This focus on the body as something to be managed is also illustrated in the work of Elias (2000 [1978]) who examined the development of manners through training, and 'civilizing' the body. On the other hand, feminist perspectives of the body examined the socially constructed nature of gender/sex difference, and hierarchies therein, as a product of a patriarchal society rather than as being something 'natural', questioning their taken-forgranted status (Young, 1990). The focal point of many studies has been the way in which the body is shaped by social forces and power relations (Shilling, 2001). The breadth and depth of these studies has given rise to equally as many attempts to define and classify the body. On the surface it seemed that sociology's engagement with the body was increasing. However, (Shilling, 1993, p. 39) argues that this is rather illustrative of the problem sociology has with the body in pinning down exactly what is meant by this term, with lived-through, experienced embodiment taken also into consideration. Loy (1991), labeled the body as 'missing in action' in a review of sociology of the body and, more recently, Ahmed (2004) has noted that despite the establishment of the body as a valid subject on the sociological agenda, the lived, experienced body, had been absent from this growing corpus of work concerned with all things pertaining to the body.

As a result, more recently analytical attention has been paid to embodiment as the experienced and lived-through source of self and society (Burkitt, 1998; Crossley, 2001b; Shilling, 2003). Williams and Bendelow (1998), and subsequently Crossley (2001b), have argued that the source of these problems and tensions within sociology of the body originate from the influence of dualistic thinking that not only separates but views the body as something controlled by the rational mind. This has resulted in an understanding of the body that does not view the body as a ground for developing understanding, or being relevant to how sociological knowledge is constituted (Howson and Inglis, 2001). Consequently in the search of an approach to the body that would be more appreciative of the 'lived-body', a number of authors have come to draw from phenomenology to develop the sociology of embodiment. Some of the studies in mainstream sociology have drawn from the phenomenological perspective of Merleau-Ponty (1962; 1964), which is also centre stage in this Thesis. Leder (1990) for example, has offered a detailed an in-depth examination of the paradoxes of the corporeal presence and absence. With the help of phenomenology he explores how embodiment is the ground for experience, yet it also tends to recede from our attention. This dynamic is reflected in the processes through which MMA practitioners and coaches develop 'ways of knowing' as I will demonstrate and discuss further in Chapter 5.

This line of enquiry, which emerged in response to such calls to bring the lived-body back to sociology, draws attention to and focuses on the concept of embodiment, instead of the body or bodies. This development stems from the manner in which the notion of embodiment incorporates the idea of the inextricable connection between the self and the body, where the self cannot be separated from its corporeality. Crossley (2001b) has further examined the potential of phenomenology to sociology and perhaps offers the most extensive account on this topic within the field of sociology. Crossley (2001b) argues that the value of a phenomenological approach for developing what he calls 'carnal sociology' lies in the manner in which it facilitates the understanding of how our subjectivity is always incarnate: a corporeal being in the world, providing us with a point of view and a situated experience of our environment. He combines the work of Merleau-Ponty (1964) with that of Mead, Mauss and Bourdieu, to develop an approach that is embodied, yet sensitive to the dualisms that are characteristic to sociology, e.g. agency-structure.

Howson and Inglis (2001) critiqued this approach and argued that it leaves core Whereas sociological concerns unattended. others have argued phenomenological approach is introspective and a-contextual, which Csordas (1997), with reference to Merleau-Ponty's work and his emphasis on the situatedness of our being in the world and intersubjectivity, considers to be a misguided view. Consequently, Crossley (2001b, p. 142) has argued, following Merleau-Ponty, that, 'our world is a social world and our embodied being is a process involving constant interactions with others, whose actions we both affect and are affected by.' The pursuit of embodying sociology was also paralleled in anthropology – cultural and medical anthropology in particular – by use of phenomenologically-guided approaches (Jackson, 1996; Csordas, 1997; Van Wolputte, 2004). In overview, in recent decades phenomenology has become a resource that has facilitated a sociological return to livedexperience and embodiment (Shilling, 2003; 2007). Furthermore, recent developments in sociology have extended the use of phenomenological approaches to include the 'queering' of phenomenology (Ahmed, 2006) and phenomenology of racial embodiment (Alcoff, 1999).

This study is situated within these developments and I use the phenomenology of Merleau-Ponty as a resource for describing, theorising and analysing the processes and dynamics that are constitutive of ways of knowing in MMA. The above is not meant to be an exhaustive review of sociology of the body, but instead offers a brief review of the key developments within sociology of the body and embodiment, with which this study connects. I discuss the phenomenology of Merleau-Ponty, and some of the authors, whose work has been introduced here, drawing connections and comparisons with the approach utilised here in more detail and depth in Chapter 2. First, however, I narrow the focus of this review down to the specific field of enquiry within sociology of sport and the opportunities for development within this field, to which this study seeks to attend.

SOCIOLOGY OF SPORT AND EMBODIMENT: ISSUES AND DEVELOPMENTS

This study is situated within the context of the wider sociological concerns and debates outlined in the previous section. However, the specific subject matter of this thesis – embodiment, experiences and practices of MMA – also places it firmly within the sociology of sport and physical culture. In this final part of Chapter 1, I 1) narrow down the focus to this particular academic field, and 2) highlight the opportunity for development within the field to explore further the promise of phenomenology to the study of sporting embodiment. This narrows down the focus and provides the final piece of the puzzle in the rationale that underpins this study.

Woodward (2009, p. 1) echoes the views of many sports scholars as she argues for the relevance of the study of the body and embodiment to this field of social enquiry: 'bodies are pivotal to what constitutes sport, and to how it is understood and experienced'. The turn to the body in mainstream sociology (Turner, 1984; Crossley, 2001b; Shilling, 2003) has consequently been paralleled by similar developments within sociology of sport and physical culture studies of sporting bodies over the past 30 years. As a result a rich corpus of research has emerged to examine the body in different sporting contexts: the disabled (Smith and Sparkes, 2005), gendered (Messner, 1990; Theberge, 2003), injured (Young, 2001) and ageing (Wainwright and Turner, 2006) sporting bodies. Hargreaves and Vertinsky (2007a) note how the majority of these studies are predominantly characterised by the tendency to prioritise abstract and theoretical treatments of the body as an object of governance and discourse. The focus has been on theorising how social structures shape, constrain and empower bodies.

Wacquant (1995) argues that this is a consequence of the 'discursivist and structuralist bias of the recent sociology of the body'. Much like within mainstream sociology, the body has been equally elusive and problematic within this sub-discipline.

This has resulted in a recent development where numerous sporting scholars have begun to critique the way in which this literature neglects lived-experiences and embodiment (Kerry and Armour, 2000; Ford and Brown, 2006; Hargreaves and Vertinsky, 2007b; Hockey and Allen Collinson, 2007). As Wainwright and Turner observe in their study on ageing, ballet and embodiment:

Research on the body has been chastised for privileging theorizing and bracketing out the individual, and for ignoring the practical experiences of embodiment. (2006, p. 238)

Parallel to the developments in mainstream sociology, where Leder (1990) and Crossley (2001b) have examined the value of phenomenology for 'embodying' sociology, Hockey and Allen-Collinson (2007) proposed the use of phenomenology as a resource for sociology of sporting embodiment. They offered a pioneering comprehensive discussion of the ways in which systematic use of the phenomenology, of Merleau-Ponty in particular, could 1) facilitate sporting scholars to ground their empirical investigations of sporting embodiment in lived-sensory experiences, and 2) offer a powerful analytical stance for studies of embodiment in sport that also understands embodiment and lived-experience as situated, facilitating an interrogation of socially located bodies. Hockey and Allen Collinson (2007) outline some possible practical strategies for using phenomenology in sociology of sport. At the time there were some exceptions to the theoretically focused, abstract studies of the sporting body, for example Young's (1990) study on female embodiment, Engelsrud's (2005) review of the methodological challenges of embodied involvement of the researcher, Downey's (2005b) study of Capoeira, and Wacquant's (2004) ethnography on boxing. These exceptions have highlighted the potential of phenomenology for fleshing out the study of sporting embodiment. I examine the specific ways in which phenomenology is useful for this enquiry in relation to the task in detail in Chapter 2.

Inspired by Hockey and Allen Collinson's (2007) proposition, and gaps in the existing work on sporting embodiment and on academic study of MMA, I conducted a preliminary examination of the role of embodiment and sensory perception in the MMA practitioners' experiences of MMA ground fighting in my MA thesis (Vaittinen, 2009).

However in 2009, Allen-Collinson (2009) noted how the promise of phenomenology still remains 'largely under-realised with regard to sporting embodiment', and there are few studies that explicitly utilise phenomenology and are truly grounded in lived-experience and corporeality. Some emerging studies have used Merleau-Pontian inspired analysis: Masciotra *et al.* (2001) have analysed the spatio-temporal distancing and co-ordination in Karate; Morley (2001) sought to explore the mind-body connection in yoga; and McDonald (2007) has used Merleau-Ponty's perspective to explore embodied consciousness and being-in-the-world in the context of the Indian martial art, Kalaripayattu. This study will contribute to this developing body of literature. It will explore the value of Merleau-Pontian phenomenology and utilise this approach for the theorising and analysis of data on embodied experiences and practices of MMA as ground for developing ways of knowing MMA and embodiment of sporting knowledge more widely.

Despite an emerging body of literature with more incorporation of phenomenology into the sociology of embodiment's analytical arsenal, and subsequently into social scientific studies of physical culture, Allen-Collinson (2008) has also noted how very little attention has been paid to how sporting activity is achieved in practice. Studies such as Wacquant's (2004) ethnography on boxing and Crossley's (2004) study of circuit training have predominantly drawn from concepts developed by Mauss (1973) and Bourdieu (1977). They have, consequently, focused on the specific body techniques and habitus that are embodied by sporting participants using these two concepts to guide their analysis of sporting practice and experience. However, there has been limited attention paid to systematic description, analysis and theorising of the process through which skills and understanding are developed and learned. The analytical use of habitus and body techniques directs tends to reduce the focus of the enquiry to these concepts, instead of focusing on the processes and dynamics that unfold in the development of experientially grounded, embodied knowledge. Thus, this study explicitly utilises phenomenology and ways of knowing perspective, as an analytical stance to examine how sporting knowledge is developed at this level of corporeality.

The rationale for this study is to draw resources from both phenomenology and anthropological studies into the development of 'ways of knowing'. I argue that this approach is useful for analytically unpacking and describing the processes involved in how skills and shared understandings are developed in practice. In this thesis I demonstrate how using the phenomenological focus on lived-experience and practice, as

well as the conceptual arsenal of Merleau-Ponty (1962), is useful in directing analytical attention to the corporeal, perceptual, social, and inter-subjective constituents and dynamics of these processes of developing 'ways of knowing'. Through this I attend to the gaps in the existing literature, highlighted above. I propose using Merleau-Ponty's conceptualisation of motility, a basic intentionality, as a guiding concept because it draws attention to the process and the phenomenological appreciation of habit and the role of innovation in development of experientially grounded knowledge. In the Merleau-Pontian sense, this is the learners' and coaches' active role in the process of knowing. This contributes to the existing work that has explored the potential of phenomenology for understanding embodiment and lived-experience as a source of shared ways of knowing. Within anthropology of knowledge, an approach has been developed that focuses analysis around the conceptualisation of practical knowledge as 'ways of knowing' (Harris, 2007a). This perspective also recognises the value of the phenomenological focus on experience and practice for exploring the development of experientially grounded skills in practice (Grasseni, 2007; Harris, 2007b; Marchand, 2007; Downey, 2007b).

On a more general level, with this discussion I want to highlight how this enquiry, and the field of sport/physical culture in general, is of relevance to mainstream social science, as reflected in the shared concerns about body and embodiment discussed in this chapter. Unfortunately, as Woodward (2009, p. 1) notes that, '[i]t has not often been sporting bodies that have been cited as the main source of empirical or illustrative material in the development of the theories of the body and embodiment'. However she continues to argue that study of embodiment in sport is particularly valuable in highlighting both the malleability and limitations of embodiment, the tensions and interconnections between corporeality and the social world. These are concerns that are equally relevant to the debates in mainstream sociology, and worthy of scholarly pursuit. I therefore propose that developing an understanding of the processes and dynamics that are constitutive of how ways of knowing are developed in sport, MMA in this case, can offer insights that are of interest for and beyond sociology of sport and physical culture.

It is about opening the wider sociological imagination to the insights that can be developed from investigations of embodiment, experience, and practice in sport and physical culture and weaving connections by utilising these shared concerns as an opening for dialogue. In the preceding section, I have begun to situate this study within

the existing literature within sociology and sociology of sport and physical culture, and discussed the rationale that underpins it.

STRUCTURE OF THE THESIS

Chapter 2 outlines the theoretical and analytical framework of this PhD thesis and lays the foundation for discussion of the three key themes (skill, pain and injury) I explore in the subsequent data chapters. First, I introduce the phenomenology of Maurice Merleau-Ponty (1962; 1963; 1964; 2007) and discuss how this perspective draws attention to lived-experience and practice, which makes it particularly helpful for unpacking and describing the complexity of the processes involved in developing ways of knowing in practice. I consider the central building blocks of a Merleau-Pontian phenomenological orientation: embodiment, experience, sensory perception, situatedness and intersubjectivity. Secondly, I sketch the understanding of knowledge I adopt in this thesis drawing from Harris' (2007b) "ways of knowing" that emerged from anthropological studies of practical forms of knowledge. This existing work also connects with Merleau-Ponty (1962; 1963; 1964; 2007), because his work attends to experience and practice, and demonstrates the different bodily and sensory qualities necessary for experiential knowledge. I consider the existing literature on this topic and the rationale for utilising this analytical frame of reference for the study.

In the final part of this chapter I connect this general frame of reference to the key themes I explore in the data chapters to follow: skill, pain and injury. I situate the perspective outlined here, highlighting the rationale and the contribution of this approach to the existing research literature. I examine the key concepts and work of key authors drawn from in this study. With regards to knowing skill, I introduce the concepts of enskillment (Ingold, 2000) and body pedagogies (Shilling, 2007a). I consider the rationale for using these concepts to guide the analysis of the data. I also discuss the approaches to pain within sport and other relevant literature to situate the analytical frame used. I then contextualise the analytical perspective of the third key theme, injury, by introducing concepts and existing work on injury to underscore the contribution of the analysis of injury as shared, experientially grounded knowing. Finally, I also draw resources from work on literature on chronic pain, and Frank's (2012) socio-narratology perspective, which share some parallels with the analysis of injury presented here. Each of these sections contextualises the discussion in the data

chapters. Together, Chapter 1, 2 and 3 provide the topical, theoretical and analytical background for this study.

Chapter 3 explores the methodological orientation that is used in this thesis to guide the collection of empirical data: ethnographic participant observation complemented by semi-structured interviews with MMA coaches and practitioners. The chapter is thematically organised, which allows me to attend to the central components of the chosen methodological perspective: the foundations, the process and reflections. The first part of this chapter is concerned with ethnography. I introduce the argument for using this particular methodological approach in relation to the study of experience, practice and embodiment. This helps situate the project methodologically within the existing literature and methodological perspectives used in the study of MMA. Furthermore, I consider the epistemological and ontological perspectives that underpin the chosen methodological approach. The rest of this section discusses how the research was conducted and fleshes out the methodological argument.

The second part focuses on the undertaking of ethnography as a method of data collection and how the 12-month period of fieldwork unfolded. I begin by discussing the preparatory stages including selection of fieldwork sites, negotiations of access and research ethics. I then consider the data collection process and the embodied labour (Okely, 2007) of fieldwork. I finally consider the practices of making sense of the data and reflect on the process of writing up. Throughout I connect to relevant methodological literature and debates. I conclude the chapter by critically reflecting on the positionality of the researcher in the research setting and its consequences on the research process.

Chapter 4 lays out the immediate research context for this doctoral research project. The aim is to set the scene for the rest of the thesis; hence, the primary focus is on providing a thorough description of the two MMA gyms: Wolf Pack Gym and Warriors Gym, where ethnographic fieldwork was conducted. The study as a whole is concerned with the process of developing different varieties of experiential knowing that are central to MMA in action. Consequently, the gym, where majority of the practices take place, is the focus of my ethnography rather than competitive MMA. The chapter examines four key contextual dimensions of MMA training:

- 1) The two gym settings, the Wolf Pack Gym and the Warriors Gym. I describe the Wolf Pack and Warriors Gym and practices that are constitutive of the ways of knowing MMA, as well as the practitioners and coaches inhabiting in these two MMA gyms.
- 2) The coaches and practitioners who train in these gyms. I discuss the practitioners and coaches, and their levels of involvement in MMA practice in these gyms.
- 3) The MMA practices which take place there and what MMA involves in practice.
- 4) The gym as a social setting.

The attention to the contexts where corporeal abilities and understanding of MMA are crafted is important. This is because, as I will discuss in Chapter 2, the development of experientially grounded knowledge is developed through an active engagement with the surrounding environment and is dialectically constructed through these settings (Csordas, 1994; Ingold, 2000; Harris, 2007a; Marchand, 2010).

Chapter 5 is concerned with the data on how 'ways of knowing skill' for MMA are developed in practice. I explore what constitutes knowing skill in MMA and how the practitioners develop such knowing of skill in practice. My analysis attends to the interconnected processes of enskillment (Ingold, 2000) and body pedagogies (Shilling, 2007a), of which the latter has received much less analytical attention in the empirical research on embodied knowledge. Throughout the chapter I also utilise analytical resources from the work of Merleau-Ponty (1962; 1964) and situate the discussion in the landscape of existing empirical research. I argue that with the help of a phenomenologically informed interdisciplinary framework, the analysis can attend to the practical ways in which sporting activity is accomplished. I begin the discussion by examining the complexity of the process of developing bodily and sensory skills, and these processes in action the Wolf Pack Gym and Warriors Gym. The analysis illustrates the dynamic nature of these processes, which are constitutive of knowing skill in MMA. I make connections and situate the data within the existing empirical studies on enskillment across different fields of embodied knowing (Palsson, 1994; Wacquant, 2004; Downey, 2005b; Grasseni, 2007; O'Connor, 2007; Marchand, 2010; Wilf, 2010).

I also attend here to the practices of coaching MMA and argue for the need to analytically dissect the body pedagogies in action. I am particularly concerned with how the skill of coaching evolves in practice through experience and in collaboration with other coaches and practitioners in training. I argue that attention to body pedagogies, together with enskillment, is crucial in understanding the development of skills. Drawing from the two previous sections, I advance an analytical understanding of the social logic fundamental to the making of MMA skill. This logic stems from the intersubjective nature of MMA knowledge and gives rise to the practices of facilitative, corporeal, co-production of skill. The approach I have adopted here lends itself to a more process oriented and holistic understanding of skill.

Chapter 6 focuses on the analysis of the second key theme, knowing pain. It illustrates the potential of a phenomenologically oriented perspective to extend an analysis of the practical knowledge of a sport beyond a focus on skill. Together with Chapters 6 and 8, here I demonstrate the different varieties of practical knowing that are fundamental to MMA, both closely interconnected with knowing skill. These insights emerge as a result of the detailed attention to the minutiae of the daily training experiences in situ. Furthermore, the chapter also demonstrates the value of the phenomenologically oriented analytical framework with attention to the embodied, sensory, social and situated nature of our being and doing in the world (Merleau-Ponty, 1962; 1964; 2007). The analysis explores what ways of knowing pain are about and how they are developed in the context of MMA. I pay particular attention to how pain is understood and how the skilled ability to intentionally inflict pain is developed in practice. The focus here is on the ways in which these abilities and understandings of pain are developed through experience in relation to other practitioners and with reference to wider discourses about pain in sport and other fields (Arney and Neill, 1982; Williams and Bendelow, 1998; Aldrich and Eccleston, 2000; Donnelly, 2001; Bale, 2006; Loland, 2006; Roderick, 2006; Shilling and Mellor, 2010). The argument presented here is that distinct and skilled ways of knowing pain for MMA is developed that through experience, practice and interactions between practitioners and coaches, in an active relation to the specific context of the MMA gym and wider discourses of pain in sport.

Furthermore, I examine how skills in producing pain are developed in practice, thus reconnecting with processes of enskillment and body pedagogies. Subsequently, I also explore how a tacit understandings of the "right" way to express pain, and of the times when pain needs to be suppressed, are developed. Furthermore, I consider how and why pain becomes normalised through practice. Emphasis is then given to how the local culture of the gym comes to invest in pain as something productive in complex and, at times, paradoxical ways. I situate the discussion within the literature on pain and sport

that has extensively investigated the gendered culture that normalises pain and its influence on athletes' attitudes to pain and risk.

Chapter 7 focuses on how the practitioners develop experiential know-how of injuries. It discusses the ways practitioners and coaches make sense of their injury experiences through shared "injury talk" with other practitioners. I illustrate how injuries are incurred in practice, the kinds of injuries the mixed martial artists experienced, and the connections between productive pain, discussed in Chapter 6, and injury pain. I analyse how practitioners and coaches develop an understanding of their own injured bodies and the practical strategies to diagnose, seek treatment and adapt training practices to accommodate existing injuries. I explore the topic through a combination of analytical discussion, field data with the practitioners and coaches, as well as through stories of injury experiences. I situate the discussion within the relevant theoretical and empirical literature (Young and White, 2000; Kotarba, 2001; Pike, 2001; Roderick, 2001; Sabo, 2001; Smith and Sparkes, 2005; Wainwright et al., 2005; Loland et al., 2006; Sheard, 2006; Malcolm, 2009). I continue by examining the role of experientially grounded injury stories in the development of ways of knowing injury using Frank's (2012) socionarratology as an analytical resource. The role of injury talk and personal injury experiences is relevant to the way injuries were negotiated in practice and how the practitioners balanced an acceptable way of training with an injury whilst, simultaneously, avoiding disruption to practice and practitioner identity. I also consider how practitioners and coaches negotiated risk in relation to the shared understandings of pain and injury they had developed.

In the **Chapter 8: Conclusion,** I bring together the threads of the main arguments and discoveries I have presented in this thesis. I situate and reflect on these in relation to wider debates on the key themes discussed in the chapters, and specifically in terms of the social scientific study of MMA. I continue by underscoring the contributions this thesis makes to the study of practical, experientially grounded knowledge and to the sociological study of MMA. I discuss the continuing promise of the phenomenological work of Merleau-Ponty (1962; 1964; 2007) for the analysis of the ongoing processes and dynamics that are fundamental to the development of corporeal knowing in practice across the bodily, sensory and social dimensions. I highlight the value of a holistic appreciation of practical knowledge for teasing out the closely entangled, yet distinct varieties of knowing. I also critically reflect on some of the limitations of this study.

Finally, I close by considering the avenues for further research informed by the insights of this PhD project.

CHAPTER 2: A PHENOMENOLOGICALLY INFORMED JOURNEY INTO EMBODIED WAYS OF KNOWING

Introduction

The purpose of this chapter is to outline the phenomenologically guided interdisciplinary framework that provides the theoretical underpinning for this study and is utilised to make sense of the data. I do this by: a) critically outlining the key theoretical and analytical frame of reference, namely the phenomenological work of Maurice Merleau-Ponty (1962; 1963; 1964) and the anthropological 'ways of knowing approach of Harris (2007b); b) introducing and describing the key concepts central to this study; c) examining the relevance of this perspective to the analysis of the process and dynamics of experientially grounded, embodied ways of knowing; and finally d) situating this approach within the existing research landscape and discussing the work key authors whose work is relevant to this study. I argue that this perspective is valuable for 1) drawing analytical attention to the processes involved in accomplishing ways of embodied knowing, and 2) developing insights that bear relevance to study of experientially grounded ways of knowing in the field of sport and physical culture and beyond.

In this chapter, I argue that this interdisciplinary and phenomenologically informed analytical frame of reference, which draws attention to practitioners' lived experiences, sensory perceptions and their engagement in MMA practice, allows me to explore the process of accomplishing ways of embodied knowing. Furthermore, it facilitates an understanding of these processes as inherently situated, through the active relation the MMA practitioners have with their surroundings and their fellow practitioners and coaches. This frame of reference draws attention to the ongoing craft involved in developing ways of knowing through experience and the everyday training practices. Thus I argue that this approach offers an analytical stance for analysing and theorising the lived-through, situated, inter-subjective and corporeally grounded constitution of the different varieties of knowing MMA, including skilled movements, pain and injury. This is an analytically important consideration, because knowledge of different fields of physical culture such as MMA comes into being through experience, in practice. This phenomenologically oriented perspective contributes to the emerging body of work exploring the potential of phenomenology for the study of physical culture and

embodiment (Masciotra *et al.*, 2001; Downey, 2005b; Hockey and Allen Collinson, 2007; MacDonald, 2007; Allen Collinson, 2009).

THE PHENOMENOLOGY OF MERLEAU-PONTY

In their article, "Grasping the Phenomenology of Sporting Bodies" (2007), Hockey and Allen Collinson propose that the phenomenological work of Merleau-Ponty (1962; 1963; 1969) is a valuable resource for the study of embodiment in sport. This value, they argue, stems from the manner in which Merleau-Ponty's work directs attention to lived experience, practice, perception and the embodied nature of our intersubjective being in the world. They maintain that this facilitates the development of studies of sporting embodiment that are grounded in both theory and lived experience. This approach views our being as embodied – that is mind and body as an inseparably connected source of self, society and meaning, rather than an abstract object that is indiscriminately and deterministically shaped by the surrounding social structures. Following Hockey and Allen Collinson's (2007) pioneering work, I utilise a phenomenologically-informed perspective as the analytical frame of reference for this study. Previously, phenomenology has been used to study experiential knowledge in anthropology (Harris, 2007b). In Chapter 1, I have noted how systematic engagement with phenomenology is only now beginning to emerge in social studies of sport and physical culture (Allen Collinson, 2009). Here, the focus is on laying out the key premises of the existential phenomenology of Merleau-Ponty (1962; 1963; 1969): 1) embodiment; 2) lived experience and perception; 3) intentionality; 4) situatedness; and 5) intersubjectivity.

Consequently, I discuss the implications of phenomenology to understanding body, embodiment and experience. Throughout this chapter, I also take the opportunity to connect and situate this approach in relation to the key debates within the literature on body and embodiment which has developed in breadth and depth over the past few decades (Shilling, 2003). I also examine those Merleau-Pontian concepts that have particular analytical relevance to this study: a) body schema; b) motility; and c) sensory media. I also sketch out my argument that the phenomenological concepts of motility and orientation/disorientation are analytically useful in developing an understanding of experientially grounded practical ways of knowing within sport and physical culture. The relevance of Merleau-Ponty's (1962) work here stems from his understanding of the *embodied* nature of our being, leading to an understanding of the world, the body,

and the consciousness as fundamentally intertwined and interrelated in experience, perception and action, which he places at the very core of his work. This understanding derives from the first fundamental premise of Merleau-Pontys' phenomenology that "we are our bodies" (Merleau-Ponty, 1962: 206), which I examine in more detail in the following paragraphs.

The phenomenological perspective that informs the analysis in this study draws predominantly on the existential phenomenology of Merleau-Ponty (1962; 1963; 1969; 2007). Beyond philosophy, the sociological and anthropological studies that have utilised this approach in their respective fields include feminism, anthropology of knowledge and the sociology of health and illness. Existential phenomenology of is but one of the complex and intertwined strands of phenomenological philosophy. Husserl (Husserl, 1931). Husserl (1859-1938), who is considered to be the founding father of phenomenology, sought to address the subjectivity of human experience as the ground for knowledge, using description as the primary method in conjunction with epoché or phenomenological reduction (Embree and Mohanty, 1997; Carman, 1999; Smith, 2007a). While there is a great deal of common ground between the two, there are also some key differences that underpin my rationale for using Merleau-Ponty as a part of

¹⁶ Existentialism refers to a philosophical paradigm which seeks to understand the meaning of human existence. Early proponents include Kierkegaard and Nietzsche (Moran, 2000). Ehrich (1999) notes how existentialist writers such as de Beauvoir and Sartre worked closely with Merleau-Ponty and led him to combine existentialism and phenomenology in his work. However, in certain respects Merleau-Ponty disagreed with Sartre, particularly on the central topic of human existence and consciousness. Sartre adopted a more Cartesian approach whereas Merleau-Ponty's interest in biology, psychology and social sciences led him to adopt an embodied view of perception underpinned by the concept of mind-body unity (Moran, 2000; Crossley, 2001).

¹⁷ Embree and Mohanty (1997) divide the diverse strands of phenomenological thought into three strands, which have a great deal of overlap and should not be thought of as mutually exclusive. These three strands are: 1) Constitutive/Transcendental; 2) Existentialist; and 3) Hermeneutic approaches to phenomenology. I have addressed the first and the second in the main text, so I only make a note here on the third approach, hermeneutic phenomenology, which is predominantly attributed to the work of Heidegger, Gadamer and Ricoeur. Allen Collinson (2009) summarises the foci of their work as the analysis of context, intention and meaning that surrounds a text or representation. It is not possible here to discuss the whole phenomenological oeuvre of work including their myriad application, so for a bite size review of the different strands of phenomenology, see an article by Allen Collinson (2009), which examines the potential of phenomenology for studies of sports and embodiment. For an extensive general review of phenomenological philosophy, see Moran (2000).

¹⁸ Description is central to Husserl's' phenomenological method and his work, and refers to the description of experience that has not been blurred by the prior knowledge of the phenomenon to arrive at its essential core characteristics (Embree & Mohanty, 1997; Moran, 2001). However, for hermeneutic phenomenologists, in contrast to Husserl, description is always interconnected to interpretation.

¹⁹ In the original Greek, epoché means 'to keep a distance from'. Husserl (1931), however, uses it to refer to the suspending or 'bracketing' of prior, taken for granted assumptions of the topic in the search of descriptions of the essential characteristics of experience.

the analytical framework for this study. Both Carman (1999) and Smith (2007a) conclude that the key difference between Husserl and Merleau-Ponty is the manner in which he departs from Husserl's understanding of the role intentionality and perceptual experience in the constitution of the lived-body. I begin with an examination of embodiment and lived experience that are fundamental constituents of Merleau-Ponty's work.

EMBODIMENT AND LIVED EXPERIENCE

'My body is the seat, or rather the very actuality of the phenomenon of expression – it is the fabric onto which all objects are woven and it is at least, in relation to the perceived world, the general instrument of my comprehension' (Merleau-Ponty, 1962, p. 206).

The above quotation illustrates how the body for Merleau-Ponty is the corporeal ground for experience through which we come to exist in the world. The body he refers to in the quotation is the lived-through experience, inseparable from the mind. This perspective understands the world, the body, and the consciousness as fundamentally intertwined and interrelated. The key difference between the work of Merleau-Ponty and that of Husserl can be illustrated by comparing their definitions of the body – whereas Husserl describes body as "a thing inserted between the rest of the material word and the subjective sphere" (Husserl, 1976, p.161), Merleau-Ponty views the body not as a "thing" but as a constituent of an embodied, perceptual capacity. In *Phenomenology of* Perception he writes, "We are in the world through our body and insofar as we perceive the world with our body — The body is a natural self and as it were the subject of perception" (Merleau-Ponty, 1962, p. 206). It is important to consider these differences because they underpin my argument for using Merleau-Ponty's work in this study. For Merleau-Ponty, our bodily being and consciousness are inseparably united. His famous discussion of the 'phantom limb' illustrates how the pain from the lost limb is neither purely physiological nor purely psychological: the patient is under no illusion that they no longer have the limb in question, yet they still experience the pain (Merleau-Ponty, 1962).

Consequently, in this thesis, 'embodiment' is understood as the experience of our bodies, our way of being: not as objects, but as lived-perceiving subjects, rather than the

body as a thing. Merleau-Ponty's understanding of existence, being in the world, as corporeally grounded and inseparable from the mind is precisely what makes his work particularly valuable to this study. As he maintains, 'We are in the world because we, in our bodies are alive to the world. In order to perceive things we need to live them' (1962, p. 325, 379). In the MMA gym, practitioners' and coaches' understanding and skilled capacities for MMA are not just cognitive or corporeal, but fundamentally embodied, and developed through experience in practice. The embodied nature of our being in the world is the existential condition that makes experiences, perceptions and actions possible. Our embodied being is what grants embodied subjects the intentional, practical engagement with, and active perception of, the world and our relation to those around us, giving rise to purpose, direction and meaning (Merleau-Ponty, 1962; 1963). As a result, Merleau-Ponty also sees embodied experience and practice as the ground for knowledge (Jackson, 1996; Crossley, 2001a). This is why his theories are of particular relevance here, for developing an understanding of the processes involved in making of different kinds of embodied knowing.

This phenomenologically guided appreciation of embodiment is situated within a wider academic context that in the recent years has increasingly come to recognise the value of phenomenology. As I have outlined in chapter 1, the work of Merleau-Ponty in particular has been proposed to have value to the sociological and anthropological study of embodiment as the experiential and perceptual source of self, society and symbolic order (Young, 1990; Kerry and Armour, 2000; Crossley, 2001b; Shilling, 2003). This focus was not always present, despite the fact that the drive for this orientation emerged from the context where the body had become an acknowledged part of the sociological project (Kerry and Armour, 2000; Shilling, 2003).

PRIMACY OF PERCEPTION AND SENSORY MEDIA

Merleau-Ponty's understanding of sensory perception is by implication embodied, because it mediates our relationship with the world, and sensory perception is the second fundamental feature of the Merleau-Pontian perspective on embodiment and lived experience. As Carman points out, for Merleau-Ponty: 'thought and sensation as such occur only against a background of perceptual activity that is always understood in bodily terms' (1999, p. 206). Sensory perception is thus another analytical entry point into a phenomenologically informed approach that unpacks the processes through which skilled sporting activities are achieved (Allen Collinson, 2008). The centrality of

perception in Merleau-Ponty's work is illustrated by this extract from *The Phenomenology of Perception*:

'My body is geared to the world when my perception offers me a spectacle as varied and as clearly articulated as possible, and when my motor intentions, as they unfold, receive from the world the responses they anticipate. This maximum distinctness in perception and action defines a perceptual ground, a basis of my life, a general milieu for the coexistence of my body and the world' (1962, p. 250).

In Merleau-Ponty's work, sensory perception through the different sensory dimensions – sight, touch and hearing – are understood as the modality of our existence and relation to our environment. Our embodied experience is fundamentally interwoven with and mediated by intentional acts of perception (Merleau-Ponty, 1964). Furthermore, the role of perception of movement is an important feature of both Husserl's and Merleau-Ponty's accounts of perception. Particularly relevant for this project is Merleau-Ponty's focus on the role of active movements towards an object, which is one of the ways in which his work differs subtly from that of Husserl. In this regard, Merleau-Ponty demonstrates that our understanding of the self and the world around us is developed through an active engagement with those environments (Carman, 1999). In contrast, Husserl's attention is directed more towards movement as a way of developing different perspectives on an object rather than actively grasping them (Smith, 2007a). Moreover, Merleau-Ponty also develops further the understanding of how the different senses operate in a unified way:

'The sensory properties of a thing together constitute one and the same thing, just as my gaze, my touch and all my other senses are together the powers of one and the same body integrated into one and the same action – any object presented to one sense calls upon itself the concordant operation of all the others. I perceive a thing because I have a field of existence and because each phenomenon, on its appearance, attracts towards that field, the whole of my body as a system of perceptual powers' (1964, p. 370).

What also distinguishes this approach from Husserl's is that, for Merleau-Ponty, these objects of perception have value or meaning for the perceiver, inviting them to interact in a way defined by the subject's ability in relation to the particular task at hand (Smith, 2007a). He illustrates this point with an example from football, making his work resonate with the study of sporting practices:

For the player in action the football field is not an 'object' – it is pervaded by the lines of force (the yard lines; those which demarcate the 'penalty area') and articulated into sectors (for example the 'openings' between the adversaries) which call for a certain mode of action (Merleau-Ponty, 1963, p. 168).

I draw here on the work of Hockey and Allen Collinson (2007), who propose the use of these different sensory dimensions as one way of "fleshing out" the phenomenologically guided analyses of sporting embodiment. I am particularly interested in the way in which the sensory dimensions of sight, touch and hearing can be used as analytical tools by exploring the ways in which they feature in experiences and practices of MMA participants and coaches. Furthermore, I find the role of movement in Merleau-Ponty's account of perception particularly helpful for understanding the development of knowhow in sport, where perceptual understanding is closely linked to movement. This adds to the work of Hockey and Allen Collinson (2007) and Allen Collinson (2009) by analysing how sensory perception and the different sensory dimensions emerge as distinct constituents of corporeal, experientially grounded ways of knowing. Consequently, I argue that attending to the dimensions of sensory perception can be useful in attempting to understand ways of knowing, both within and beyond the context of MMA.

Merleau-Ponty's appreciation of perception is closely informed by the concept of the *body schema (schema corporel)*, which is integral to his phenomenological enterprise and consequently to his account of lived experience and practice (Merleau-Ponty, 1962; Merleau-Ponty, 1963; Crossley, 2001b). This concept refers to an embodied subject's innate sense or awareness of their body position in relation to different planes and axes of movement (Merleau-Ponty, 1962; Shilling, 2003). An understanding of body schema allows us to develop a perceptual and practical grasp of our embodied points of view: "what we have called the body schema is precisely the system of equivalencies, this immediately given invariant whereby the different motor tasks are instantaneously transposable" (Merleau-Ponty, 1962: 163). Only a handful of studies have so far explored this in the context of sport and physical culture, but a body of literature is now gradually emerging following the pioneering work of Allen Collinson (2009).

Intentionality and motility: Understanding our capacity for learning and innovation

I now consider two further aspects of Merleau-Ponty's work which are both of particular interest here because they underpin our capacity to learn: intentionality and motility. Merleau-Ponty developed Husserl's' account of intentionality to state that consciousness, perception and action are always consciousness of something, or directed towards something or someone (Carman, 1999; Moran, 2005; Allen Collinson, 2009). In practical terms, this explains why we perceive, experience and act differently within a certain context, as well as why we choose to respond to particular sensory stimuli or intentional conditions with the exclusion of others (Merleau-Ponty, 1963, p. 170-176). Intentionality is closely connected to the situatedness of our being in the world because it consists of projecting purposes and goals which structure and influence our situatedness, shaping our relations with others and our environment (Young, 1990; Allen Collinson, 2009).

Intentionality is important for this enquiry on two levels: 1) it directs attention, together with the phenomenological interest in the immediacy of lived experience, to the practical nature of human existence, in that the meaning of bodily action is not assigned by some external agent but is inherent within the practice towards which we have intentionally oriented ourselves (Merleau-Ponty, 1962; Jackson, 1996); and 2) it acknowledges the purposeful nature of the embodied subject's relation to the world. This stems from Merleau-Ponty's (1962) understanding of perception and consciousness as intentional and practically shaped in relation to opportunities for action (Crossley, 2001a; Crossley, 2001b; Shilling, 2003). In summary Merleau-Ponty (1962) consequently argues that the embodied subjects' engage and actively interrogate the world around them and that this is constitutive of cultural and social practices and meanings.

The Merleau-Pontian concept of motility is closely connected to his understanding of intentionality, and is also useful because of the role it plays in his work, extending the body schema in a way that enables embodied subjects to incorporate new skills through experience, which allows the development of movements, both in terms of quantity and quality (Merleau-Ponty, 1962, p. 234). As Merleau-Ponty states: "Already motility in its pure state possesses the basic power of giving a meaning (Sinnebung)" (1962, p.142). Smith (2007a) points out that motility is about more than active movement – it is about

action towards objects and grasping things, a quality that connects it to the intentionality of our existence, as this further quotation from Merleau-Ponty illustrates: "Motility is about basic intentionality. Consciousness is in the first place not a matter of 'I think that' but of 'I can' (1962, p.159). Motility underpins our embodied capacity to develop understanding, meaning and consequently human knowledge (Merleau-Ponty, 1962, p. 113). I argue that incorporating motility as a guiding concept for analysis can direct attention to the processes through which experientially grounded practical knowledge is developed. Interestingly, very few studies utilise this concept analytically, despite the fact that it appears to have potential for understanding varieties of embodied knowing.

Studies that investigate body and embodiment within different forms of physical culture and sport have not necessarily framed their investigations as phenomenologically guided (Hockey and Allen Collinson, 2007), nor do they utilise the phenomenological concepts in their analysis of sporting experiences. Others such as Crossley (2008), for example, approaches embodiment and the acquisition of "body techniques" through the work of Mauss (1973). However, as Shilling and Mellor (2007b) note, Mauss' attention to lived experience was relatively marginal, despite the fact that he provided a detailed account of how bodily techniques differ across cultures and social contexts. Others such as Ford and Brown (2006), for example, draw on Bourdieus' (1977) concept of habitus - a bodily explanation of how general social structures such as social class are produced and reproduced – in their research on surfing in order to sketch an understanding of the surfer's habitus. However, their focus is on the end result that is the habitus, and on descriptions of the habitus, and they do not seek to systematically analyse and describe the active, even creative role of practices and experiences that make up such dispositions. As Young (1990) observes, absent from such research are the experiences from the perspective of the corporeal subjects living through these bodily dispositions and structured positioning.

This is what is particularly useful in Merleau-Ponty's work, because it allows me to analyse how ways of knowing are achieved through practice and experience, and to think through embodied understanding in the making. Because motility encapsulates the ability to purposefully orient ourselves in relation to potential actions, it is a fundamental premise to the phenomenological account of the experiential and perceptual groundings of practical human knowledge. It therefore allows me to direct my attention to the actual processes of skill and understanding in the making as lived-through, in progress, rather than to focus simply on the result of these processes. This

raises the question of orientation in the phenomenology of Merleau-Ponty, which is taken up and developed by Ahmed (2006) in the context of sexual orientation. She argues that we should ask "what does it mean to be oriented and what difference does it make what we are oriented towards" in order to fully think through matters of residence, inhabiting space and how embodied subjects shape and take shape in these spaces (Ahmed, 2006).

What is particularly useful about Ahmed's work, is the way she draws attention to the practical character of orientation, and specifically, her exploration of the way disorientation occurs in a new environment and makes us more aware of our orientation (Ahmed, 2006). Disorientation, I argue, can facilitate understanding processes through which we develop practical, corporeally grounded knowhow of MMA and physical culture in general, which are fundamentally made possible by the phenomenological understanding of motility. MMA training and practice are very dissimilar to many everyday activities, and as Downey (2005b) and Wacquant (2004) note in context of Capoeira and boxing, learning always involves incorporating something unfamiliar into one's corporeal schema.

THE SPATIAL AND SOCIAL SITUATEDNESS OF BEING IN THE WORLD

The world is [...] the natural setting of, and field for, all my thoughts and all my explicit perceptions. Truth does not inhabit only the inner man [sic], or more accurately, there is no inner man [sic], man [sic] is in the world, and only in the world does he [sic] know himself. (Merleau-Ponty, 1962, p. 87)

In the above paragraphs, I have made some connections between the environment and embodied experience through a discussion of intentionality and the related concepts of motility and orientation. These concepts are fundamental to a phenomenological understanding of our capacity to actively engage with the world around us. We do not merely exist in the world, but we are constructed through our relation with it. As the quotation above illustrates, for Merleau-Ponty the embodied subject's experience is inseparably situated, being in the world (Merleau-Ponty, 1963, p. 77; Hockey & Allen Collinson, 2009; Carman, 1999). Consequently, the development of ways of knowing is inherently connected to our environment and the meaning that arises from experiences and practice (Crossley, 2001b; Harris, 2007b; Marchand, 2010). This is central to the understanding of experience and practice in this study, as both are framed as sources of embodied knowing: knowledge, experience and the participants located in the lifeworld

(Jackson, 1996). In the context of sport and physical culture, this situatedness is significant in acknowledging that knowing always emerges out of relations with other practitioners, as well as with objects, such as the equipment being used, and with the general environment and physical space of practice (Hockey and Allen Collinson, 2007; Allen Collinson, 2009).

Finally, closely related to his account of the situated nature of our being is the concept of intersubjectivity or intercorporeality, which enables us to grasp how Merleau-Ponty saw the nature of our being as inherently socially situated, as existence in relation to others, and to appreciate that his phenomenology is not limited in its focus on the introspective, singular world of the subject. To understand the phenomenological orientation used to theoretically frame this study, it is therefore crucial to acknowledge that, for Merleau-Ponty (1962; 1963; 1969; 2007), experience and practice are not about individuals acting alone, and meaning is made through our relations with others (Jackson, 1996). This point is further reinforced by the situated nature of phenomenological embodied being in the world, as discussed above. The lifeworld that Merleau-Ponty attends to is an inherently social domain:

I may well turn away from it, but not cease to be situated relative to it. Our relationship to the social is like our relationship to the world, deeper than any express perception or any judgment. We must return to the social with which we are in contact by the mere fact of existing and which we carry about inseparably with us before any objectification – the social is already there when we come to know or judge it. (1962, p. 362)

This is particularly important in relation to the framing of this enquiry, because it emphasises that the ways of knowing through practice and experience do not take place in a vacuum. More so, as Wacquant (2004) argues, even in individual sports such as boxing learning is inherently collective. Although he does not explicitly refer to the intellectual debt to Merleau-Ponty, insights from Wacquant's ethnographic study nevertheless illustrate the close corporeal cooperation between the coaches and practitioners whose experiences are the focus of my thesis, as they learn, coach and compete in relation to eachothers' practices and experiences. Intersubjectivity is the dimension of phenomenology that has had the least amount of analytical attention in the social study of physical culture, and thus is an area in which the analytical potential of phenomenology might be developed further. Loland (2006), who theorises on the subject of pain experiences in sport, argues that Merleau-Ponty's work is problematic

due to its introspective nature, a criticism that has been echoed across a number of different academic fields (Jackson, 1996; Crossley, 2001a). In relation to the discussion above, however, it is evident that this critique of Merleau-Ponty is misplaced. Crossley (1996; 2001a) in sociology and Csordas (1994) in anthropology have demonstrated the inherent sociality of Merleau-Ponty's work.

The feminist phenomenological approaches of de Beauvoir (1974) and Young (1990) also counter the criticism of phenomenological approaches as analytically unable to attend to difference. They draw on the work of Merleau-Ponty in order to explicitly attend to the lived body, always understood as that which is always layered with social, historical and cultural meaning, because for Merleau-Ponty: "to be born is both to be born of the world and to be born into the world" (1962: 517). Charlesworth's (2001) particularly poignant sociological account of the phenomenology of working class experience provides an insight to how working class people experience and express the social 'at a time of acute poverty and vulnerability' – a working class being-in the world – and illustrates the acuity with which the phenomenology of Merleau-Ponty can grasp embodied being as that which is lived through social difference. I draw on such developments of phenomenological thought in my discussion in the data chapters in order to tease out the ways in which social and cultural positioning informs the process of developing ways of knowing MMA.

In the above paragraphs, I have described the key features of the Merleau-Pontian phenomenological perspective which underpins the theoretical frame of reference in this study. This approach allows me to attend to embodiment as lived, experienced and perceived, with a fundamentally intentional, active engagement with the world and others around us. Importantly, this framework provides a crucial foundation for my investigation, due to the manner in which it views experience, perception and our potential for action as generative of experientially grounded practical knowledge. I now move on to examine relevant phenomenologically guided literature that seeks to make sense of practical knowledge.

WAYS OF KNOWING: MAKING SENSE OF EMBODIED PRACTICE AND EXPERIENCE

Embodiment, practice and experience are the key nexus points at the heart of this enquiry into Mixed Martial Arts (MMA). In a nutshell, this thesis tells the stories about the ways the practitioners and coaches develop experientially grounded practical knowing. These are stories attuned to the lived-through processes of developing practical and corporeally grounded ways of knowing MMA. The first part of the chapter focused on examining phenomenology of Merleau-Ponty which provides both, a theoretical underpinning, and an analytical stance from which I explore the data. In this thesis I combine this frame of reference with 'ways of knowing' perspective that I examine in this second half of Chapter 2. This perspective is also phenomenologically grounded. Consequently I argue, this inter-disciplinary approach is useful for analytically making sense of how different kinds of sporting knowledge are embodied, and attending to the process of how it is produced, and developed in practice, through experience. Here I examine the relevance of this analytical perspective to the analysis of different varieties of embodied knowing that emerged from MMA experiences and practices. I introduce some of the studies I draw from as regards to the key data themes. I also situate the proposed approach within the existing research landscape around these key themes.

I first introduced in Chapter 1 why I utilise the phrasing 'ways of embodied knowing' rather than 'embodied knowledge', because the former refers to a particular perspective for understanding of experientially grounded knowledge and that it is 'inevitably situated in a particular place and a moment; that it is inhabited by individual knowers and that it is always changing and emergent' (Harris, 2007a, p. 4). This approach originates from anthropology of knowledge (Crick, 1982), but it is equally informed by studies of health and illness, which drew attention to experience as ground for knowledge (Jackson, 1996; Nettleton & Gustafson, 2005). An example of such as study is Kleiman's (1980) examination of suffering, where he illustrates how the patients developed understanding of illness through experience and relations with others and in contrast to the ways illness knowledge is defined by medical science.

Early studies, such as the pioneering work of Strathern (1988) in the non-Western context of her fieldwork in Melanesia, utilised this approach in the analysis of indigenous knowledge to interrogate Euro-American centred conceptions of

knowledge. Subsequently an increasing number of anthropologists have found the appreciation of knowing that attends to the practical, tacit, sensory and non verbal dimensions of skill, is a productive avenue for both anthropological theory and method (Harris, 2007a). The scope of more recent studies has widened to include tacit forms of understanding that exist in the Western context, as well as comparative studies between different contexts (Marchand, 2010). Of these studies, and those that are of particular relevance here, include the ethnographies by Marchand (2007), Grasseni (2007) and Downey (2005b). Marchand (2007) investigates craftsmanship in Yemen, Mali and the United Kingdom. He examines the development of the apprentice masons' practical know-how through experience and both tacit and explicit interactions with the 'masters', across different cultures. Grasseni (2007), on the other hand, emphasises the perception of a skilled activity with a focus on the development of skilled vision in North Italian farming communities. Within the context of physical culture, a study by Downey (2005b) focuses on the development of skilled ways of seeing found in the Afro-Brazilian martial art, Capoeira.

The value of this analytical stance is that it further facilitates understanding of MMA practice from the practitioner perspective and the processes through which ways of knowing MMA is achieved in practice, through experience. Another feature of this approach is acknowledging the inherently situated nature of knowledge, which is an extension of the phenomenological perspective introduced earlier in this chapter. Harris also notes how this approach has drawn from the work of Lave and Wenger (1991) in the field of education and management, who coined the concept of 'situated learning'. Lave and Wenger (1991) argued that learning processes are shaped by the context and social interaction, instead of being something which takes place inside the heads of individual learners. The implication is that the processes of practical knowledge are always entangled with the world around us, particular place and moment. Thus, ways knowing MMA as conceptualised in this study are always understood as inextricably connected to the context of the practical and social milieu of the MMA gym, and the social world and personal histories the practitioners embody.

Before moving on with the discussion I draw attention to the relevance of ways of knowing has to MMA in particular and sport and physical culture in general. Downey, who has utilised this approach to examine the Afro-Brazilian martial art Capoeira and whose work I discuss further in the upcoming paragraphs, has also written on the evolution of fighting technologies of no-holds barred fighting, that MMA was

previously known as. Although Downey's (2007a) paper on NHB is not based on ethnographic research, like his work on Capoeira, his observation illustrates the analytical relevance of ways of knowing perspective to making sense of ways of knowing MMA:

"The study of bodily techniques, specifically fighting skills, illustrates the degree to which all forms of 'know-how' may be like other technologies, affected by social forces and technical development over time, even when no tool other than the human body is apparently being used. Close examination of athletic fighting techniques reveals very clearly that major paradigm shifts and innovations significantly reshaped the sport and the fighters' skills, and that fighters were very adept at making 'tacit' dimensions of practice explicit or finding other ways to acquire them at a distance. Although these forms of bodily knowledge were not laid out explicitly in words, diagrams or formulae, under intense scrutiny and experimentation they proved liable to imitation and susceptible to analysis (Downey, 2007a, p. 213)

I draw from the 'ways of knowing' perspective because I consider it to be particularly fruitful for developing understanding of sporting knowledge in the context of MMA, and other areas of sport and physical culture, because for the coaches and practitioners knowledge of their sport resides in practice and is acquired through experience. Abstract structures such as rules and regulations of a sport shape sporting practices (Woodward, 2009), but what I want to highlight here is that they only come to exist, and evolve through experience, practice and experimentation. Experientially grounded sporting knowledge cannot be acquired in isolation from practice. Ford and Brown (2006) who explore the relationship between the activity of surfing and social theory, propose that future research should go beyond the symbolic meanings and representations to uncover living knowledge and experience. This is because it provides access to the how a surfers' habitus comes to being. Thus, understanding of how we come to know a sport, calls for attention to both practice and experience that are constitutive of this knowledge. In this regard I also draw from Ingold (2008, p. 82) in that it is crucial to attend to practice and experience because 'by learning about practice by practically doing nurtures truly "embodied" discoveries about the temporal, social and physical processes that are inseparable from acts of learning and communicating knowledge'.

Thus in this Thesis I utilise ways of knowing in combination with Phenomenology of Merleau-Ponty to analytically examine data on embodied practices of MMA because it allows me to bring into focus pathways of developing understanding and the ability to actually accomplishing the practical tasks at hand. Knowing a sport is much more than the sum of the individual technical parts, and therefore cannot be analytically reduced to quantities of body techniques. Ways of knowing approach goes beyond this and enables making sense of the practices and experiences of MMA in a manner which does not let the processes slide from the analytical view and reduce them to concepts that make the actual social, perceptual and corporeal fabric, fundamental to accomplishing of sporting activity, disappear. Furthermore, it facilitates a discovery of the diversity of the ways of knowing a sport, in this case MMA, is about much more, than just knowing how to perform a technique. I now move on to outline the way in which I propose to relate this interdisciplinary analytical stance to make sense of the varieties of embodied knowing in MMA.

Knowing skill

First I am concerned with discussing how this analytical stance gives a particularly valuable toe hold on developing an understanding of the ways we come to know skill and how existing work can be utilised in the analysis of MMA. I will argue in relation to the existing literature that both the processes through which embodied skills are acquired, as well as the processes involved in communicating skilled knowledge are analytically important. Although there is an overlap between the two, there are also distinctive features, which are central to developing an understanding of embodied ways of knowing. I will discuss the data that substantiates this argument in depth in Chapters 5, 6 and 7.

I first consider two closely entangled processes that I frame these practices through: enskillment (Ingold, 2000) and body pedagogies (Shilling, 2007b) because these two processes are central to how skilled activity is achieved in practice. I utilise enskillment to make sense of the apprenticeship of skill in MMA, because it facilitates a more holistic appreciation of skill. Ingold (2000, p. 351) who introduced the concept of enskillment argues: "skill cannot be regarded simply as a technique of the body". Consequently I use enskillment in the analysis instead of body techniques originally developed by Mauss (1973, p. 104). This is because the way Mauss uses the concept ultimately views the resulting skilled movements as "of a mechanical, physical or physiochemical order" (p.104), which reduces the technical to mechanical. Whereas using enskillment facilitated understanding of skill as constituted through the active, embodied engagement of the human subjects with their surroundings (Ingold, 2000, p.

352). "The novice becomes skilled, not through acquisition of rules and representations but at the point where he or she is able to dispense with them". (Ingold, 1993, p. 462)

Thus in this study, skills, following Ingold's (Ingold, 2000) ecological approach, are defined as the development of embodied and sensory understanding and capacities for action that involve the attunement of movement and perception to the environment and our active relations to it (Ingold, 2000). Harris (2007a) also discovered during his fieldwork amongst peasants in Amazonian Brazil, how skill resides in villagers' active perception of the environment, and how their active relations with it had material consequences in terms of their survival. What is also useful in Ingold's work (1993), is his concept of "taskscapes": understanding the socially shaped space of human activity as 'an array of related activities, qualitative and heterogeneous'. This approach is particularly helpful here as it emphasises the social nature of practical technique, the sociality of skill and the unfinished, process nature of practical understanding and ability. Thus skill is also, in the phenomenological sense, intersubjective. It is not something that occurs in the isolated mind of an individual, but is made through our active engagement with and in relation to others, and is shaped by these relations. This is illustrated by Wacquant (2004) in his study of the corporeal education of boxers where he describes the social relations and logic that guides their practice.

In this thesis, knowing skill, is understood as much in terms of perceptual skills and bodily reflexes as it is in terms of development of movement techniques (Downey, 2005b). It is about developing corporeal and sensory capacities for action. It includes knowing how, but is not restricted to technique; rather it places the development of ability to apply skills in action as a crucial part of the analysis. Downey (2005a; 2005b; 2007b) utilises an approach that is in dialogue with research in other relevant fields, such as neuroscience. In his study on Capoeira he explores how the learning process involves education of sensory perception. The Capoeiristas develop skills, the performance of which is about more than mechanical repetition: it involves a development of the motor system and requires constant self-monitoring and adjustment (Downey, 2005b). His work informs my understanding of the ways of knowing that reside in and emerge from the practices of MMA. I consider this a fruitful avenue because it problematises the conceptualisation of the development of bodily skills, techniques and understandings as simply a consequence of identical repetitive action. What is also of importance for me about Downey's work is the particular manner in which he draws from the observations of Bernstein (1996) in order to problematise the

commonly expressed reference of apprentices acquiring body techniques through repetitive rehearsal over time.

Interestingly, within sociological studies of sport and physical culture, there has been little systematic analysis of the process of the actual achievement of the activity in question (Allen Collinson, 2008). Neuroscientist Bernstein (1996) argues that repetitive exercises do not lead to development of knowing skill because they produce constant identical actions. Instead the purpose of the repetition is to enable the solving of motor problems, which the particular "taskscape" presents, and to develop ways of solving them and relating to the changing situational conditions. These problems involve coordinating the body to perform a skill and the perceptual understanding at an appropriate time. The crux of his argument is that movement techniques are never identically and monotonously reproduced but instead what is central to knowing skill is the dependence on perception and ongoing adjustment and re-adjustments (Bernstein, 1996). Downey (2005b) also problematises the idea of repetition in bodily training. Instead of considering skill as a result of flawless repetition, much like Ingold (2000) he points to the role of perceptive skills that allow constant readjustment within a changing circumstance as fundamental to learning and application of bodily skills in action Thus for Downey (2005b) the process of learning a skill involves focus on movement techniques that are robust, the development of sensory perceptive abilities that enable variation, and the application of movements.

Thus attention to the process of enskillment offers analytical purchase on the particular practices and experiences through which embodied understanding and skills are developed (Ingold, 2000). Many of the studies that emerged to investigate practical know-how have analytically focused on the process of apprenticeship through which knowing was developed (Marchand, 2010). In particular, in anthropology, a range of studies have emerged to explore the process of bodily apprenticeship in various contexts from building craftsmanship (Marchand, 2007), farming (Grasseni, 2007), fishing (Palsson, 1995), medicine (Sinclair, 1997) and glassblowing (O'Connor, 2007). In the context of physical culture, studies exist on corporeal apprenticeship in Capoeira (Downey, 2005b), boxing (Wacquant, 2004), climbing (Lewis, 2000) and the army (Lande, 2007). These studies are a part of the growing body of empirical studies that apprehend knowing skill as a process where the skilled practices are lived through and experienced in relation to the surrounding context (Zarilli, 1998). The attention to practical learning by doing facilitates discoveries to the processes of learning, ways of

knowing and communicating knowledge (Marchand, 2010). The unpacking of these processes of accomplishing skill in MMA, here incorporating the sensory, is a helpful analytical dimension through which to grasp processes relating to how skilful sporting activity is actually achieved (Allen Collinson, 2008; 2009).

However, majority of the anthropological studies on ways of knowing and embodied knowledge focus primarily on the perspective of the knower and learning the craft, although descriptions of the teaching practices are not completely absent. What has been less attended to analytically is the understanding of the practices through which bodily educators transmit their way of knowing to others, a skill in itself. For making sense of the transmission of skill I turn to sociology and the concept of embodied pedagogies coined by Chris Shilling (2008) in conjunction with enskillment because it allows me to analytically attend to the role of coaching practices in MMA practitioners' development of skill and their application in action. Shilling (2007b) proposes that the concept is useful in attending to the central pedagogic means through which 'corporeal techniques, dispositions, skills and embodied experiences associated with acquiring or failing to acquire these attributes and the actual bodily changes that result from this process'. I argue that an empirical account which seeks to attend to both of these processes is valuable. This is because they are both equally fundamental to the process of developing ways of knowing skill for MMA. I suggest that this approach can contribute to a more comprehensive understanding of development of practical skill. Furthermore it also allows me to develop insights into coaching as a distinct skill of developing means through which coaches share their skills with practitioners.

Thus, in this thesis I hope to attend this gap in the existing literature. Despite the arguing for the embodied pedagogic approach and its advantages, previous accounts have tended to focus on learning whereas the practical ways in which masters of different fields transmit their knowing to those around them have tended to receive less attention. I am aware that this concept is closely connected and does overlap with the detailed focus on embodied practical ways of learning. However, as I have noted above, I will argue that there are distinct features and that the ability to teach others is a skill in itself. Analytically dissecting how ways of knowing skill are passed on, can contribute to our understanding of how ways of knowing are transmitted in practice. However, pedagogy is not understood here as an unidirectional, top down process, but rather as interactive; by implication, if coaching MMA is a skill then that too must be learnt.

One of the few studies that actually describes the process of teaching a skill is a study on glassblowing by O'Connor (2007), who describes her discoveries as an apprentice glassblower and the ways the instructors practically teach glassblowing. There is some attention to the pedagogic within Wacquant's (2004; 2005) ethnography of boxing as he describes how drills are demonstrated by the coaches, and experiences shared and discussed, as a part of the collective pedagogy of boxing. However, despite describing these processes, neither analyses pedagogy as a skilled form of knowledge. To make sense of these practices I also draw from a study of jazz education by Wilf (2010) who analyses the challenges of the transmission of knowledge of playing jazz, which takes on certain structured features such as jazz scales and pieces of jazz music already written for musicians to play.

Wilf (2010) directs attention to the aspects of the practical mastery in jazz improvisation that rely on constant differentiation, regeneration, uniqueness and open-endedness. The ability to improvise is based on first mastering the jazz scales and others' compositions, which are taught in a more structured way. He explores how jazz educators cope with training the body and then liberating it (Wilf, 2010). His work points to an important aspect of physical culture: improvisation and application of skill. This is why I believe working through the complexities of the data on ways of knowing in MMA can be fruitful. This is due to the applied and multilayered nature of MMA where, in sparring or in competition, practitioners must put together the skills learnt in training in relation to their training partners and opponents and apply their skills in action. Coaches can only teach so much; they have to learn to grasp the opportunities in the moment. Evidently, the activity of glassblowing explored by O'Connor (2007) also requires the development of individual artistic expression, a kind of improvisation, but it is Wilf (2010) who specifically focuses on the tensions between teaching techniques and improvisation, which makes it a useful resource. I now move onto outline the key concepts and situate my analytical stance in relation to two further varieties of embodied knowing that are central to the practices and experiences of the coaches and practitioners in this study.

KNOWING PAIN

In the above paragraphs I have laid out my approach to MMA practice as way of knowing skill by attending to, 1) the processes of acquiring skill, and 2) the skill of the coaches in transmitting their skills to others through practice. In the studies that I have discussed in relation to enskillment and pedagogy, few have sought to understand practices and experiences of pain. However, as Jackson (1996) points out in his introduction to a collection of essays on phenomenologically oriented anthropology, the drive for attending to embodied experience as a source of practically grounded knowledge initially emerged from studies of pain and chronic illness. Studies by Kleinman (1980), Frank (1995) and Jackson (1994) explore experiences of chronic illness and the knowledge of pain that emerged from patients' perspectives in contrast to the one offered by theoretical medical discourses. Here, I sketch my proposal to framing pain experiences and practices in MMA as ways of knowing as a rich avenue for grasping the varieties of knowing on two levels, 1) pain as a part of knowing skill in MMA where techniques are designed to produce pain to the opponent; and 2) how practitioners negotiate experiences of pain and develop situated meanings of non-injury related pain. This approach facilitates an appreciation of the variety of the kinds of knowing that are involved in the making of sporting knowledge. At first however, I discuss the context of how pain has been theorised about so far in the fields of sociology and anthropology.

Medical sociologists Aldrich and Eccleston (2000) have described pain as something that is fundamental to human experience. Thus, making sense of the experiences of pain has been analysed across anthropology and social sciences. Within these accounts, pain has frequently been analysed as abnormal, something out of the ordinary (Baszanger, 1992; Garro, 1994). Leder (1990) for example views pain as a dysfunction of the body, one that brings our corporeality to our attention. This promoted an understanding of pain as a diagnostic, something to be suppressed or eradicated, an understanding that was not limited to medical discourses but one that also shaped everyday presentations of pain (Scarry, 1985). Studies have, however, emerged that argue for the need to explore the diverse meanings of pain, where pain also has meaning of something productive, positive, and even valued (Aldrich and Eccleston, 2000). I utilise the approach advocated by Aldrich and Eccleston (2000) in which both aspects of pain (abnormal and normal) require attention if we are to develop a more comprehensive view of the diverse

ways we understand pain. Another key theme central to social scientific studies on pain, which informs my work on pain as a way of knowing, is the importance of examining the local contexts in which pain is negotiated. For example, Scarry (1985), in her influential work on body in pain, underscored the importance of social, historical and textual contexts to the ways in we make sense of pain.

Sport and other areas of physical culture are precisely the kind of socio-cultural context where experiences of pain have been widely researched (Young, 2001; Howe, 2004; Allen Collinson, 2005; Loland et al., 2006; Atkinson, 2008). The main emphasis on this body of research emphasises the importance of sport as a context that shapes the athletes experiences, meanings and consequences of pain (Donnelly, 2001; Nixon, 2001; Sabo, 2001), where analysis has focused on pain as a signifier of injury. The body of research by Donnelly (2001) Young (2001) and Sabo (2001) has also focused on the lived experiences of pain that deals with how sportsmen and women negotiate pain and how, in the context of the sport ethic that promotes valorisation of enduring and ignoring pain, taking risks shapes these negotiations. Consequently Donnelly (2006) has argued that the understanding of the contexts where risk is a valued identity trait, demonstration of character and comradeship is crucial to developing an understanding of risk taking in sporting environments. In this body of work, there is a strong emphasis on analysing the way pain and injury phenomena are embedded in the power, gender and contextual relations within sport cultures (Hughes and Coakley, 1991; Curry and Strauss, 1994; Charlesworth and Young, 2001; Sparkes and Smith, 2002; Howe, 2004). A more recent work by Howe (2004) also follows this thread of enquiry in an investigation of the influence professionalisation and commercialisation of sport to experiences of pain and injury, which encourages athletes to work through pain and injury.

There are some gaps in the existing work, however: firstly, apart from a few exceptions, focus is on elite sporting contexts only (Bale, 2006); secondly, conceptualising pain as a form of knowledge, more specifically as something skilled, including the pathways through which skills and understandings are developed through experience, practice and interactions, has been explored in analysis to a limited extent. Using the phenomenologically oriented analytical stance outlined previously in this chapter, affords the opportunity to analyse pain as a skilled and tacit understanding developed through experience, and through our active relations with our spatial and social surroundings. By directing attention to the processes involved in the making of pain as a variety of MMA knowledge, it is possible to develop further understanding of the

dynamics that shape the ways of knowing pain in MMA. Previous literature has acknowledged that athletes are socialised to a culture of risk, but what I am interested in here is how this occurs in everyday practices and interactions, and the way pain is interwoven so closely into the fabric of knowing the sport of MMA, which gives rise to a particular shared understandings of pain. It is also important to note that sport is not the only context in which pain has been found to have productive meaning, and even value. Enduring pain is valued in a number of settings. Shilling and Mellor (2010) describe how pain is valued as character building as a part of religious experiences, whereas Jones (2008) and Pitts (2003) shed light on the ways in which pain is viewed as productive in the context of cosmetic surgery and body modification. In discussion on my collected data, I will draw parallels and comparisons from this wider body of literature.

Here I adopt a holistic definition of pain, Parry (2006) emphasises the need to acknowledge the multitude of manifestations and meanings of this phenomena in the quest of making sociological sense of it instead of merely seeing it as a signifier of injury:

Pain refers to a variety of sensations, i.e. sensation felt when hurt, bodily or emotionally, a sensation of accompanying physical injury, a distressing sensation as of soreness not of injury, a chronic ache, which is sometimes as a result of disease (but not always), the suffering and anguish of endurance, extreme discomfort, that accompanies extreme exertion. (Parry, 2006, p. 145)

It is clear from the above definition that pain is a sensory phenomenon and, as the previous studies into chronic illness (Frank, 1995) emphasise, experience plays a role in making sense of pain. In MMA, a full contact combat sport, pain is particularly relevant. Firstly, as Aldrich and Ecclestone (2000) observe, the culture of combat sports facilitates investment in pain. Secondly, the skills and movement techniques that constitute MMA are designed to produce pain and/or injury to the opponent, although injury is more of a by-product than a desired end result (Downey, 2007a). Consequently, it is not surprising that both existing ethnographic studies of MM outlined in Chapter 1, have examined pain, although from a slightly different angle to this study (Green, 2011; Spencer, 2009; 2012a; 2012b).

Green (2011) examined the way in which MMA practitioners in the US were drawn to pain as a part of their participation in the sport. His findings offer insight to the ways in

which experiences of pain, offered practitioners the opportunity to reunite with their bodies and test their bodily limits through the transient sensations of pain during training and competition that was absent from their everyday lives outside training. Green (2011) also observed how these shared experiences provided intimacy that contributed to a sense of commonality. What is distinct about this study in comparison to majority investigations of pain in sport and in comparison to Spencer's (2012a; 2012b), is the way Green (2011) examines the distinct meanings and seductiveness attached to sensations of pain during training and competition, but which are not necessarily connected to injury. Spencer (2012a; 2012b) on the other hand follows in the footsteps of much of the existing research on pain and injury in sport; examine pain predominantly as a signifier of injury. Consequently I discuss this aspect of his work in the concluding section of this Chapter. He explores how MMA fighters interpret pain, and how development of tolerance to pain is connected to performance of successful masculinities within this context. However I will re-connect with relevant aspects of both authors work again in discussion of the data on ways of knowing pain.

Pain was one of the three key themes emerging from the data, and it constituted a central part of ways of knowing in the two MMA gyms examined in this study. Consequently, novice practitioners have a lot to learn about dealing with pain, and how to appropriately express, ignore or talk about it in the MMA gym. Through their experiences practitioners also develop an understanding of their own bodies in pain, when pain is too much or the threat of injury too great, as they learn about the limits of their bodies. These kinds of understandings share some features found in the experiences of chronic pain sufferers (Frank, 1995) in that the experientially grounded understandings of the individual or fellow sufferers can be challenged, or prioritised, over those provided by medical discourses. I will present the insights gained through this analytical stance and how ways of knowing pain were developed through experience, practice and with references to the wider discourses on pain, sport and gender in particular, in Chapter 6. I now turn to discuss the way injury has been studied and conceptualised within social studies of sport and physical culture as well as my framing of injury as a shared, experientially grounded way of knowing for MMA coaches and practitioners.

KNOWING INJURY

I now turn to how I propose to frame the experiences and practices of injury for MMA coaches and practitioners. Following Bale (2006) and Howe (2004), I define injury as the breaking down of the structures of the body, which is often, but not always, accompanied by pain. In this study I treat experiences of pain and injury as analytically distinct, although closely connected and overlapping, phenomena. There are issues in assuming that pain always equals injury and that injury is always accompanied by pain. This concept glosses over some of the nuances in the ways these phenomena are constitutive of experientially developed ways of understanding different cultural and social contexts. In the following paragraphs I consider the existing literature on injury in sport and I discuss how the phenomenologically oriented analytical stance is productive of insights into the injury experiences and the practices of non-elite MMA coaches and practitioners as an experientially grounded ways of knowing injury. I also introduce the socio-narratology of Frank (1995; 2010) and his previous work on the body-typology which I utilise in my analysis because it allows me to analyse what role stories play in the development of ways of knowing injury.

Injury experiences and the negotiations and consequences of injury, much like pain, have received a great deal of attention across a number of disciplines of sport and physical culture, from ballet (Wainwright et al., 2005) and rugby (Howe, 2001) to rowing (Pike, 2001) and running (Bale, 2006). Many studies focused on exploring the influence of context (Young, 1993; Frey et al., 2001), peer groups (Nixon, 1993) and power relations on the ways athletes made sense of injury and uncovering the influences that led athletes to risk injury through sporting participation (Sabo, 2001). More recent studies on the subject have widened the scope to study the influence of professionalisation and commercialisation of sport raising the stakes and encouraging athletes to ignore and work through injury (Howe, 2004). Understanding injury experiences shaped by the context works within the rest of my phenomenologically oriented framework to promote a situated understanding of injury. A limitation within this rich body of literature is that the predominant focus is on the elite level of sport. Kotarba (2001) is one of the few who have observed that at the non-elite level, the treatment and care of injuries available is far from the cutting edge methods available to the elite, shaping the ways injury is experienced.

Merleau-Ponty's (1962) theory of phenomenology acknowledges how social meanings attached to a particular environment and social interaction fundamentally shape behaviours, perceptions and intentionality. In a study on the social dimensions of sports injury Kotarba (2001, p. 100) has noted how 'injuries occur on the body, but their appearance, experience and management are mediated by social relations'. In the MMA gym this included practices such as sharing knowledge of managing injuries, methods of treatment, and rehabilitation through injury talk between fellow practitioners and coaches. This approach facilitates discoveries into how these ways of knowing injury were interwoven into the training practices as well as the embodied and social interactions within the MMA gyms. Despite the great number of studies, which have emerged to explore pain and injury in sport and physical culture, injury or pain have not analytically explored the process of developing these experientially grounded understandings and practical strategies as a distinct ways of knowing that are central to development of sporting knowledge.

Another strand of research on sporting injury, which informs my framing of injury as an intricate and experientially grounded form of understanding that is crafted and informs practical strategies of managing injury, is focused on the interweaving of injury experience and narrative. For example, the seminal work by Sparkes and Smith (2003) on narratives of athletes who had experienced life-changing spinal cord injury demonstrates the role of narrative in making sense of the consequences of injury to life and identity. Their approach is underpinned by the wealth of sociological and anthropological studies that have explored experiences of (chronic) illness revealing inherent sociality (Nettleton & Gustafson, 2005) and an understanding of illness from the patient perspective (Jackson, 1996). Narrative was understood as a way in which patients made sense of the disruption to their lives and sense of self (Charmaz, 1992). Overall this corpus of work is part of the 'narrative turn' in human sciences that has come to acknowledge the importance of stories in structuring experience (Smith *et al.*, 2009).

It is also where the discussion of pain and injury within Spencer's study of MMA is situated as he examines the paradoxical relationship between pain and injury and the performance of masculinities. He focuses on how injuries disrupt their identities and change MMA fighters' interpretations of their embodied selves in a context where successful masculinities are connected to their physical ability to participate in MMA training and contests. Spencer (2012a, 2012b) utilises the fighters' narratives of loss and

despair to illustrate how fighters reflect on these bodily failures to participate in MMA and the loss of status amongst the community of fighters following injuries. I will connect with Spencer's work at relevant aspects of the analysis of ways of knowing injury in Chapter 7, in particular with his discussion of the intertwining of injury, narratives and masculine identities of MMA fighters. This study along with the study by Spencer (2012a; 2013b) contributes to the emerging academic literature on MMA by offering insight into the everyday injury experiences of MMA participants thus providing a contrast to much of the existing literature on MMA and injury. So far this topic has predominantly been examined from a medical scientific perspective, focusing on statistical analysis of injuries resulting in MMA competition (Bishop *et al.*, 2013)

However, in this study I also propose to complement the phenomenologically oriented analytical stance by drawing from the socio-narratological approach by Frank (2012). This approach builds upon Frank's (1995, 2001) earlier work on illness narratives, where he develops an understanding of the ways in which bodies speak of illness. He argues that these bodily experiences create a need for stories and Frank explores how this is articulated in the illness narratives of those suffering from chronic or life threatening illnesses. He situates the discussion in the postmodern era where the ill [sic] are dealing with simultaneous 'threat of disintegration and the promise of re-integration' (1995, p.172), and where medical narratives that previously offered some certainty in the face of illness, are questioned. This work focuses on chronic illness whereas the focus in this Thesis is on sports injury. However, the framework through which Frank (1995; 2010) examines chronic illness is a useful resource for understanding how MMA practitioners injured bodies and injury experiences are generative of stories and how these stories play a central role in developing ways of knowing injury in MMA. What is particularly relevant to this enquiry regarding his earlier work is his body-typology. In particular the concepts of a) the 'disciplined body' that seeks to reassert some certainty through regimes at the time of uncertainty that is characteristic to illness/injury and b) the 'communicative body' which seeks to appreciate this contingency as something productive (Frank, 1995). These ideas are particularly useful for grasping how MMA practitioners negotiate their injury experiences and underpin the perspective from which I seek to examine role of stories as generative of the ways of knowing MMA.

In addition to the above, in his more recent work, Frank (2012) offers a further resource for analysis of ways of knowing injury in MMA. I draw from aspects of socionarratology is an approach that focuses on stories as actors and what they do, which he

suggests is to inform human life, make it social and how relationships are constructed through stories in everyday contexts. This is in contrast to some narrative approaches which focusing on the structural features of the narratives or analyse narratives as a mirror into (self) identity of the storyteller. This draws further attention to the role of stories, as generative of something, an idea which Frank (1995; 2010) has already introduced in his earlier work. Within the existing literature, Leder (1990) has observed illness and injuries reveal the vulnerabilities of embodiment and the embodied self and Scarry (1984) has extensively discussed how pain and suffering contributes to the unmaking of bodies and selves. Whereas Frank's (1995; 2010) work allows directing attention to how the process of unmaking of the body can also be a generative process as I seek to illustrate in this Thesis, of shared injury knowledge.

Another particularly pertinent aspect of this approach is the way in which it understands the crucial role of stories in 'making life social' (Frank, 2010, p.15). This offers a space in which to examine how stories of injury connect these people, MMA practitioners, coaches and fighters, and how stories continuously evolve when storytellers change their stories based on hearing the stories of others', as well as their own. I illustrate and discuss this in Chapter 7. In this thesis I propose that this approach is a useful framework to think through and analyse the role of injury stories and injury talk amongst MMA practitioners and coaches, and for understanding how they contribute to the development of shared knowing of injury in the context of the MMA gym. On a general level the approach is valuable due to the interest it has in learning from storytellers, which in the case of this study is focused on the experientially grounded ways of knowing injury. In Chapter 7 I demonstrate how this approach can yield insights which contribute to the existing experience-focused research in sportinging and narratives which have focused a great deal on exploring the narrative strategies of negotiating the consequences of the injury to the embodied self.

The value of this approach is its attention to embodied injury experiences as source or stories and the role they play is social life, because this allows me to focus and draw attention to the day-to-day makings of a shared, practical understanding of how to not injure others, the causes of injury, how to manage and rehabilitate injuries, and how to adapt training. It allows me to shed light on the diverse ways of knowing that make up practitioners' and coaches' understanding of their sport. It also facilitates understanding of the role of injury talk and narratives of injury experiences in the making of this knowledge.

CONCLUDING THOUGHTS

In this chapter I have outlined the parameters of the phenomenological orientation that provides the underpinning theoretical and conceptual framework that is the foundation for this study. It guides the way I approach experience and practice as embodied, situated and intersubjective, generative of human knowledge. Furthermore, I have outlined how the phenomenological framework and concepts are helpful to consider when theoretically making sense of the practice and experiences of MMA practitioners and coaches. In the second part of this chapter I focused on the phenomenologically informed, interdisciplinary framing of practices and experiences as a way of attending to the processes through which practical, corporeally grounded understanding is accomplished. This theoretical framework facilitates an appreciation of the different varieties of knowing that constitute the sport of MMA from the practitioners' perspective.

Downey (2007b) calls for the need to understand the diversity of the ways of knowing. Here I utilise his call to extend the study of varieties of knowing MMA, beyond knowing skill, to include the practical and experientially acquired knowing of both pain and injury. Having outlined my approach and the relevant concepts I utilise in my analysis of the varieties of embodied knowing, I now direct my attention to the methodological considerations for this study in Chapter 3.

CHAPTER 3 - METHODOLOGY: FOUNDATIONS, PRACTICES AND REFLECTIONS

Introduction

The aim of this chapter is to explore the research methodology of this project. I outline how the theory and methodology work together, and discuss how the research process unfolded over the course of the project. In practice, this study consisted of a twelve month ethnographic fieldwork in two MMA gyms: Wolf Pack Gym and Warriors Gym are introduced in detail in Chapter 5, are situated in the North-East of England. Total participant numbers and demographics are available in appendix B and C The data was collected through participant observation, including my personal involvement in MMA practice, and consists primarily of ethnographic field notes, written notes of informal conversations in the field, and a research journal in which the research process was recorded. This data is complemented by nineteen semi-structured interviews conducted with an even mix of MMA fighters, coaches and recreational mixed martial artists.

The main aim here is to make the case for the value of ethnographic participant observation, and in particular the use of corporeal apprenticeship as a research tool and methodology to study the processes involved in how embodied and experientially grounded varieties of knowing MMA are developed in practice. Another key concern here is to examine the practical process of conducting research, including the preparatory considerations, data collection methods, analysis and writing up. The methodological design examined here is underpinned by the core interests of the project: embodiment, experience and practice, and these same interests shape the research questions outlined in the Introduction to this thesis. Consequently, this chapter is closely linked to the preceding chapter, which laid out the phenomenologicallyoriented analytical framework for the study. However the study does not utilise the phenomenological method advocated by Husserl (1931). I will discuss the selection of the research design at the end of the first part of this chapter. Furthermore, my interest in the MMA participants' point of view derives from my personal involvement in MMA, and in this chapter I also explore how this involvement informed my methodological choices.

The chapter is structured according to three key concerns: 1) the foundations – the rationale for ethnographic participant observation; 2) the research process and practices;

and 3) reflections. I begin by making the case for the use of ethnography in this project, and outlining the methodological argument presented in this chapter. In addition, I also consider the epistemological and ontological foundations of the study, which have been fundamentally important in the selection of both my analytical and methodological approaches. In the second part of the chapter, I build on this foundation by describing and critically discussing the process of "doing ethnography". I begin by detailing the preparation for the field, before going on to examine the messy realities of collecting, analysing and writing up ethnographic field data. Throughout the second section, I explore the advantages and challenges of my dual status as a researcher and an MMA practitioner, extending the methodological argument introduced in Part One. The third and final part, 'Reflections', offers a critical reflection on the positionality of a female researcher conducting research in a male-dominated environment. I conclude by reflecting on the tensions and challenges resulting from my dual role as researcher-participant that I encountered during the research process.

THE FOUNDATIONS: PARTICIPANT OBSERVATION IN THE STUDY OF EXPERIENCE, PRACTICE AND EMBODIMENT IN **MMA**

This section is particularly concerned with introducing and situating the methodological argument I make in this chapter. I argue that participant observation, and in particular the researcher's embodied involvement in MMA practice, is an instrumental research tool for understanding the process of developing experientially grounded, practical ways of knowing MMA. The foundations of this argument are threefold, although they stem first and foremost from the aim of this project to study a particular group in order to develop an understanding of their particular social reality by examining it from an insider's perspective. In making visible the rationale, I draw on the work of a number of ethnographers (Zarilli, 1998; Wacquant, 2004; Engelsrud, 2005; Downey, 2005b) who have argued for the use of the researcher's corporeal involvement as an instrumental research tool, or what Wacquant (2004; 2005) describes as an invaluable methodological springboard.

The MMA gym is an environment in which doing is of paramount importance, and ways of knowing MMA are inherently practical in nature. Engaging in these practices is therefore crucial for any researcher aiming to understand the experientially grounded ways of knowing MMA, and it is for this reason that this particular methodological approach is of value to this present enquiry. Ethnographers who have studied these

kinds of settings demonstrate the value of practical engagement to this project. For example, Zarilli, who studied the South Indian martial art Kalaripayattu, was told by the teachers of the art that the only way to understand Kalaripayattu was to learn it through daily practice (1998, p. 18). For Wacquant, his time as an apprentice boxer was instrumental in his investigation and interpolation of data, and enabled him to capture the visceral qualities of social life. Eliasoph has captured the essence of the relevance of the chosen methodological to fields beyond MMA and sport in general:

In many spheres of life, people can only learn only by doing things together, so the sociologists who want to understand meaning making in everyday life have to observe and experience these embodied practices as they unfold in real time and space, and materialise in real bodies. We like the people we study, must learn the practices – be they boxing or fiddling or perhaps even shuffling papers in a cubicle. Understanding people's cognitive schemata, or cultural models, much less their rational calculations, is not enough (2005, p. 160).

Moreover, ethnographic fieldwork practice itself is also inherently embodied (Wacquant, 2005; Okely, 2007). As Okely points out, participant observation that is so central to the ethnographic research practice "is a process of physical labour, bodily interaction and sensory learning, which constitute the foundation for production of written texts" (2007, p. 65). She demonstrates how, despite a general acknowledgement of the role of the fieldworker in the research process, there has been limited attention paid to scrutinizing embodied nature of fieldwork (Okely, 2007; Wacquant, 2005). There are some exceptions that consider, for example, the rape of the fieldworker (Moreno, 1995; Gill and MacClean, 2002) and the consequences of the researcher's gendered body on the research process (Gill and MacClean, 2002). However, I feel Okely's (2007) point is even more relevant here due to the focus of this thesis on exploring the experiential and practical nature of knowledge, and the processes through which this corporeal understanding is developed.

My role as an insider, and the practice of participant observation, enabled me to closely observe the day-to-day practices and interactions of MMA practitioners, and to question them about their experiences within the particular social setting of the gym. This gave me an opportunity to deepen my understanding of the setting, and the individuals and groups in the field, and to collect data which could not have been gathered using interviews alone. An ethnographic approach and its accompanying methods facilitated the study of corporeal practices and experiences from the ground up, allowing the

participants to tell their stories and to foreground their own practices and experiences. It enabled me to discover some of the more tacit aspects of knowing MMA that are not necessarily accessible through interview. They only became visible in the discoveries through movements, observing movement, ongoing craft, interactions, among and with the practitioners and coaches that were generative of ways of knowing MMA. Thus a method of data collection, which is capable of capturing them, was necessary for developing understandings of the processes and dynamics constitutive of ways of knowing MMA.

Despite being a participant, some of the practitioners were a little less forthcoming when I spoke to them, so my skills and abilities as a practitioner were crucial in this regard. For example, some of the people I had not met before, and who trained together as a small group, were quite distant when I told them about my research and asked if I could observe their training session. However, the second part of their session was a conditioning circuit that was constructed from sports-specific fitness exercises. I was pleasantly surprised when one of the practitioners challenged me to do the circuit with them. I accepted the challenge and worked with them, and by the end of the session their approach towards me had changed and each of them shook my hand, as well as each others', before leaving that day. That I made an effort and was able to take part was significant in developing a rapport with the MMA practitioners. Okely (2007) has noted how, in many cases, the effort that fieldworkers made in taking part in the skills or practices of the field setting, what she calls 'physical labour', resulted in instrumental rewards. In her research on farming communities in Normandy, for example, she found that learning to milk a cow helped her to develop fruitful research relationships and to gain acceptance in the field.

Okely (2008) also found that sharing these experiences opened avenues in discussion with research participants during fieldwork. I too found this to be the case, which enabled me to ask questions that were meaningful to participants in situ. Furthermore, as (Tapper, 1991) discovered during his research on nomadic people in Afghanistan, learning through participation with research participants enabled him to appreciate the craft involved in performing the mundane tasks – or in my case the daily practices of MMA – and how these tasks were accomplished. Participation enabled me to observe the MMA practice and experiences in action, and allowed me to interact with participants in practice during, before and after training sessions outside the relatively formal setting of an interview, which is inevitably somewhat detached from the

immediacy of the training practices. Engelsrud (2005) has argued that the researcher's body can prove to be a valuable instrument of data collection, exemplifying the point with her own research on aerobics instructors. During his work on Capoeira, Downey (2005b) discovered that, due to his participant status, the practitioners did not offer him comments that were distanced from experience, but rather talked openly about their experiences or engaged in practice together with him. Collins and Gallinat (2010) have argued further that the ethnographic self of the researcher can be a crucial resource in ethnographic research, and certainly, as I have illustrated above, my skills as a participant, as someone who was learning MMA alongside other participants and coaches in different capacities, meant that, while my experiences were not the same as those of other, I was nevertheless able to draw from my own experience, practitioner know-how, and understanding to both guide my fieldwork practices and facilitate research interactions. I will continue to illustrate the influence of my practitioner status in the next part of this chapter. In the discussion of the research process that follows, I demonstrate both, its value as well as the resulting challenges and tensions.

The second component of my methodological argument was guided by sociological concerns about the role of corporeality, practice and experience in MMA. Simply put, my sociological imagination was drawn to find out more about this contemporary hybrid sport. The few existing studies focused on the place that MMA, or its predecessor NHB, had in contemporary society on a macro scale (Van Bottenburg and Heilbron, 2006; Hirose and Kei-ho Pih, 2009; Sanchez Garcia and Malcolm, 2010). These studies were theoretically framed within 'figurational sociology' (Elias and Dunning, 1986), and focused on investigating whether MMA was a development that was operating against the grain of the general civilising process in Western societies. Their concern was driven by the fact that this new sport appeared to allow what was perceived as increasingly high levels of physical contact (Van Bottenburg and Heilbron, 2006; Sanchez Garcia and Malcolm, 2010). Methodologically, however, these studies did not attend to the perspective of the practitioner, but were concerned instead with reaffirming or critiquing the theory of the civilizing process (Elias and Dunning, 1986) in relation to the arrival of MMA into the sporting arena. Only two existing studies to date have utilised a more participant oriented approach, I have discussed these studies by Spencer (2012a, 2012b, 2009) and Green (2012) in Chapters 1 and 2. Acknowledging this methodological limitation of the existing work, and the manner in which the perspective of the practitioner had been omitted, I sought to develop an alternative approach. I felt that the approach outlined above – that of taking sociological enquiry to the ground level of MMA, into the gym where it is practiced – would allow me to address this gap in understanding.

The final consideration regarding my methodological argument is a personal one, because my role as a practitioner of MMA was also instrumental in deciding to conduct a study that explored the topic from the practitioner's perspective. Prior to the start of my research, I had been a recreational MMA participant for five years in total. I had trained with a recreational group of practitioners using the space in the Scrap Pack gym, and had taken part in the MMA classes organised there. Hughes (1990) underscores how the choice of research methodology is in part always guided by the skills, preferences and abilities of the researcher. This was the case here, as my skills and abilities as a practitioner were a crucial resource, and shaped my decision to use ethnographic participant observation as the methodological orientation for the study.

Ethnographic design also has implications as regards to the underpinning perspective on the nature of knowledge; how is it that we come to know something? The underpinning influences of this study are illustrated in the argument for the corporeal involvement of the research, outlined in the above paragraphs. It is grounded in the idea that we can learn about the social and cultural world around us through intensive participation, experience and relation with this world and those who inhabit it (Denzin and Lincoln, 1998; Brewer, 2002; Sands, 2002). This appreciation of the nature of knowledge shares a great deal with the phenomenologically-oriented understanding of the role of embodiment, experience and practice that is situated within an active relationship to the world and the subjects around us (Merleau-Ponty, 1962; Laverty, 2003; Engelsrud, 2005). Both are geared towards grasping the embodied, situated and intersubjective foundations of knowledge, making it possible to generate theory through what Atkinson (2012) calls "ethnographic experiential education", which involves doing, seeing and feeling at first hand. Harris (2007b) has also noted how the involvement of the ethnographer is crucial in developing understanding of experientially grounded ways of knowing developed through experience and practice. This perspective has shaped this study on two levels. Firstly, it acknowledges that embodied practice and experience are understood as generative of varieties of knowing MMA, which is not unique to MMA, but encompasses a wide range of ways of knowing that are developed through processes of experiential apprenticeship (Eliasoph, 2005). Secondly, these fundamental assumptions about knowledge underpin the methodological design choices for this

study, because they essentially define how to best go about examining the social world of MMA practice and practitioners.

Another closely related consideration is the matter of epistemology, which I will briefly examine here before moving onto discuss the research process itself. Holy has noted the importance of appreciating the epistemological grounding of a research project:

Understanding and setting epistemological grounding for a research project is important, because before an ethnographer reaches a field site she is directed to understand it in a particular way. Specific theory about the constitution of the investigated object does not only shape the method of investigation but it also defines research problems and directs the researcher's observations of the specific aspects of the object deemed theoretically significant (Holy, 1984, p. 13)

An epistemological perspective is concerned with the way the relationship between the researcher and the research participants, is understood, and it thus shapes a research project in a very fundamental way. It orients the way in which relations between the researcher, participant observer and the research participants are understood (Laverty, 2003; Engelsrud, 2005). The perspective that underpins this project draws on the phenomenology of Merleau-Ponty and hermeneutic phenomenologists such as Gadamer (1983). This particular epistemological perspective regards researcher and subject matter in an interactive, reciprocal relationship (Laverty, 2003; Engelsrud, 2005; Young and Atkinson, 2012). This understanding is an important component of the methodological argument, because the close interaction between the researcher and the participants in the field is a key characteristic of ethnographic research (Aull-Davies, 2008). Furthermore, this approach takes seriously the narratives generated by individuals, and the experiences they share with one another and in dialogue with the researcher, and thereby encapsulates the co-creation of meaning that arises from the data (Engelsrud, 2005), which makes it appropriate for this study of the practice and experience of MMA.

The above paragraphs have outlined the rationale behind the selection of the ethnographic research design and the corporeal involvement of the researcher in this project. Before moving on to critically discuss the process of doing ethnography, I briefly consider the reasons why I chose to use this research design instead of the Husserlian 'phenomenological method' or other type of phenomenological design such

as the Interpretive Phenomenological Analysis (IPA). Allen Collinson (2009) offers a comprehensive discussion of the potential benefits and challenges of these methodological approaches for the study of sport and embodiment. The 'phenomenological method' as laid out by Husserl (1931), can be best described as an attitude or an orientation guiding methodology rather than a pre-prescribed technique (Kerry & Armour, 2000). The four guiding principles of this method: 1) focus on descriptions of 'the things themselves', 2) on intentionality of consciousness, 3) on essences, that is the essential structures of experiences and 4) on reduction or epoché which guides phenomenologists to bracket taken for granted assumptions to achieve at these essences of a phenomenon. Due to the non-prescriptive nature of this method it has come to signify different things to different strands of phenomenology (Allen Collinson, 2009, Creswell, 1998; Colizzi, 1973). Allen Collinson (2009) points out how this has resulted in blurring the boundaries and/or confusion between application of this method and qualitative methodologies in general. This is why I want to clearly outline my stance in relation to the phenomenological method here.

This decision not to utilise a strictly phenomenological method, 'attitude' or more prescriptive phenomenological design, such as IPA on this occasion, was made with reference to the scope and aims of this project. As I have outlined in Chapters 1 and 2, the scope here was to focus on exploring the potential insights this phenomenologically oriented, *interdisciplinary* analytical frame of reference would yield for understanding the processes through which varieties of knowing are developed. Consequently 1) due to the complexity of this framework, bringing multiple interdisciplinary, not purely phenomenological strands of analytical tools, together and 2) the scope and resources I had available for a PhD project, I chose not to employ a strictly phenomenological method as the research design. As the study is situated within a context where the systematic use of phenomenology in study of sporting embodiment is only developing, I wanted to proceed one step at a time, first examining the value of the theoretical and analytical arsenal to ways of knowing sport.

In addition, the rationale presented in this section demonstrates how the existing studies in anthropological study of 'ways of knowing', which I utilise in this study, have yielded insights that can be developed through a combination of the ethnographic research design and phenomenological theory and concepts. Finally, although not strictly employing the phenomenological method, the analytical frame for this study does so through its application of theory and concepts of Merleau-Ponty (1962; 1964),

focus on a) producing rich descriptions of practitioners' experiences, b) intentionality and its relevance for developing ways of knowing MMA c) by attending to the experiences of participants. Throughout the research process I have also sought to employ a self-reflexive critical attitude, use of which Allen Collinson (2009) encourages instead of application of strict Husserlia epoché. Therefore, I maintain an open attitude for developing application of the phenomenological method in conjunction with framework introduced here in future work for which this study is merely a springboard. Having laid out the methodological foundations of this project in this section, I now move onto critically discuss the process of doing ethnography.

THE FIELDWORK PROCESS AND PRACTICES: ON DOING ETHNOGRAPHY

The methodological perspective outlined above will now be developed through a discussion of how this ethnography of MMA unfolded in practice. I begin by exploring the preparation for the field, before moving on to consider the fieldwork practices and the process of making sense of the data. While the reader may interpret the layout of these three themes as representing a linear, straightforward sequence of events, in practice these processes of conducting ethnographic research were closely enmeshed, and temporally overlapped one another. This highlights the difficulties inherent in presenting research practices in a written form, as this inevitably constrains in some way the (re)-presentation of the data recorded in the field (Denison and Markula, 2003a). Such concerns are particularly relevant to qualitative research project such as this one, which, unlike deductive, quantitative designs, does not proceed in a linear fashion (Markula and Silk, 2011). As a result, I have made the decision to organise the field practices thematically here for the purposes of clarity.

IN PREPARATION FOR THE FIELD: RESEARCH ETHICS AND NEGOTIATING ACCESS

The active fieldwork phase only constituted a proportion of my research process, and before venturing into the field I devoted a year to preparation. During this time, I focused on developing the research proposal, selection and negotiations of access to the field settings. Furthermore a central feature of this preparation was to developing the strategies for addressing research ethics and data collection, which subsequently remained central concerns throughout the whole research process. All these issues first

required thorough consideration prior to negotiating access and the entry into the field However, I wish to underscore that these issues were a continuous concern and practical consideration whilst in the field collecting data, analysing it and writing up the final thesis. This discussion here seeks to demonstrate how this project has been conducted in a manner that is not harmful to the participants or the research and that is respectful and dignified in the treatment of the participants (Markula & Silk, 2012). I have sought to follow the Ethical Guidelines of the **British** Sociological Association (http://www.britsoc.co.uk/about/equality/statement-of-ethical-practice) and the by the Newcastle Committee guidelines issued University **Ethics** (http://www.ncl.ac.uk/res/research/ethics_governance/ethics/).

There were a number of ethical considerations relevant for this project, here I discuss: informed consent, anonymity and confidentiality regarding management of the data collected, which arose from this negotiation of access and the interactions with participants in the field settings during data collection, which I will discuss here. Addressing research ethics was central to the success of the project, and ethical approval from the Newcastle University Ethics Committee was required before I could commence data collection. The key issues highlighted here are outlined in their entirety in the Ethics report and risk assessment which were successfully submitted granting project ethical approval and insurance cover (Full documentation available on request).

Informed consent is about ensuring participants are sufficiently and accurately informed of the implications of their involvement a research project, to enable them to make an informed decision on whether to take part in the research project or not. The most common way of gaining informed consent is written, formal consent forms (Markula & Silk, 2012). This process is relatively straightforward when data collection methods such as questionnaires, interviews and focus groups are utilised. As a result of the nature of the chosen ethnographic research design, where the researcher is immersing him/or herself in a particular social or institutional setting, collecting data as a part of the practitioners daily activities in that setting as they unfold 'naturally', the process can be less straightforward (Sands, 2002). Much of this research involved recording of activities, interactions and discussions that occurred as a natural part of the activities in these two MMA gyms, instead of more formal data collection situations e.g. interviews or focus groups. Therefore, in this project I had to develop strategies which allowed me to obtain informed consent using a variety of methods, as the formal procedures used in

quantitative projects and interview-based research are not always appropriate in the field

Consequently, I designed a number of documents and strategies to address the issue of informed content in this project. Firstly, I designed appropriate information sheets that were made available to practitioners whenever I was conducting fieldwork. This document included comprehensive information about the project, and which outlined what was involved for participants (Appendix D). Furthermore, on a daily basis I was frequently required to explain this information to the practitioners verbally, because this was a more practical strategy and allowed me to inform and remind participants about my researcher status without being too disruptive to the daily life in these gyms. After training sessions I encouraged practitioners to take a copy of the research information sheet with them and actively encouraged them to ask questions. During the project I worked with gym owners, coaches, fighters and recreational participants, which had to be taken to account when designing the informed consent forms which outlined the participants' involvement, including the potential use of video recordings, right to withdraw as well as information on how the data collected would be used and how it would be securely stored and disposed of..

To address the different data collection strategies and participant groups I planned to work with, the informed consent forms were required to reflect this. Subsequently I developed informed consent forms for the gym owners and for the semi-structured interviews (Appendices E and F). In terms of participant observation in the gym, I made my role as a researcher very explicit, and told the participants about my project before the sessions began, explaining what was involved, and making sure that I repeated this information when new participants joined. The interactions and informal conversations that were the main sources of data collected during participant observation often took place during and around training sessions, and as a result asking participants to sign forms was not always practical. While I offered all participants the opportunity to sign an informed consent form (Appendix G), some practitioners considered their verbal consent to be sufficient. It is clear that it would not have been possible to formally request informed consent in every interaction, observation and conversation in the field (Sands, 2002), and nor would this have been conducive to the collection of data during the everyday training practices, as it would have interfered significantly with the flow of interactions and conversations in the field. However, I made every effort to remind practitioners about the project where appropriate, and I ensured that I did this throughout the duration of the fieldwork, as my status as a native ethnographer may have caused practitioners to forget my dual status as researcher and participant. All decision regarding informed consent strategies were planned and implemented in consultation with the supervisory team and the relevant ethics guidelines.

In addition to informed consent, I also needed to address the management of the data collected during this project 1) anonymity and 2) data management and protection.. Firstly, assuring the anonymity of participants was highly relevant to this project that focused on practitioners' personal experiences and practices. According to good ethical research practice, the research participants have the right to remain anonymous to prevent invasion of their privacy and unwanted identification (McNamee et al., 2007). Thus all the names I utilise throughout this Thesis, including the names of the field work gyms, are pseudonyms. Whilst some ethnographers of sport, have chosen not to employ pseudonyms, (see Wacquant, 2004 and Heiskanen, 2012 for example), others, such as Klein (1999) in his ethnography of bodybuilding, have chosen to anonymise both the research settings and participants identities. Throughout the project I respected participants' wishes and right to remain anonymous. Some practitioners were happy for me to use their real names, however others wanted a pseudonym to be used, thus to avoid making the identities of the latter identifiable I chose to consistently utilise pseudonyms throughout. This is also why I have not named the specific city in which fieldwork took place and only refer to the region. Furthermore during fieldwork or after fieldwork I did not discuss the details of practitioners or their views across the two field settings. However I did share my own, personal training experiences with practitioners, which often facilitated discussion and enabled me to develop research rapport with the coaches and participants.

Another central concern was the secure storage of participant data, method of which the participants were informed in the consent forms and when requesting informed consent verbally. Throughout the project, all data including interview recordings, transcripts, photographs all including confidential information, were stored in a locked filing cabinet or on an encrypted section of my computer hard-drive. Only I, as the researcher and my supervisory team, were given access to the raw data collected. This was fundamental in upholding good practice regarding safe and secure storage of research data as outlined in the Data Protection Act 1998.

Finally, alongside the above ethical considerations concerning the participants, there were also some practical safety concerns in terms of assessing the potential risk of harm

the study would pose to the researcher or the participants. The main consideration in terms of risk assessment was to evaluate whether the project would involve subjecting the participants to risk of injury. The researcher and practitioners were all already involved in MMA prior to the research project and would have engaged in these activities whether the research project was taking place or not. Furthermore the project did not involve participation in testing or experiments outside these daily training, coaching and competitive practices and consequently did not subject participants to any unnecessary risks. Another concern regarding safety of the researcher was the issue of travelling to and from the field locations late at night. To address this, I made sure that my partner was always aware of my whereabouts when I was out in the field, and I kept a mobile phone with me so that I could inform him of any changes or potential problems. While I did not experience any safety issues as such, I was aware of the risks and took relevant precautions. Please see full risk assessment in ethics form and risk assessment document, which are both available on request.

Once I received ethical approval for the project, I was finally ready to begin negotiations of access and active fieldwork. While this did not involve a journey to a foreign country or a different geographical region, as it does for some fieldworkers, there was nevertheless a transition from the previously rather separate roles of postgraduate researcher and MMA participant, to the dual role of researcher-participant, the "native" ethnographer (Gallinat and Collins, 2010). This process fundamentally changed my role as a practitioner, as MMA was then no longer something I did in my free time, for personal enjoyment, development and discovery. First however, I had to negotiate the access to appropriate the field settings and to participants, a pre-requisite for a successful completion of the project (Grill, 1998; Brewer, 2002; Sands, 2002; Bryman, 2004; Madison, 2007). For this project, my status as a MMA participant was a key facilitating factor in regard to: 1) the selection of fieldwork sites and 2) the initial and ongoing negotiations of access..

First and foremost, my pre-existing participant status meant that I had a rough idea of the gyms where MMA training took place in the area and this along with convenience of access guided the choice of the field sites for the project. My knowledge of the MMA scene in the area thus enabled me to select the fieldwork sites best suited to my research project. Pseudonyms were used for the two field-sites and the participants of the study, throughout this Thesis as I have outlined in the discussion of ethics. One of my choices, the Wolf Pack Gym, was the first gym in the area to start MMA coaching and training,

and consequently had a well established operation and participant base. The Wolf Pack Gym is also my "home" gym. It is where the recreational MMA group of which I am a member trains, and also where I participated in MMA classes organised by the gym. In contrast, the Warriors Gym was established more recently, only three years before I began my research in the field. I chose two different kinds of MMA gyms because MMA is a relatively new sport that has evolved since it first emerged in its contemporary form in the 1990s. Therefore, I wanted to carry out my fieldwork in a gym that had existed when MMA – or No-holds Barred, as it was known at the time – first emerged, as well as in a gym that had opened after MMA had become more established. Both gyms organised group classes at evenings and weekends, with one-to-one and small-group training sessions taking place in a variety of time slots. However, if no sessions were booked in the gyms, both facilities would close. As such, the access to the field settings and the daily fieldwork schedules, were dictated by the opening times of the gyms and activities that took place. In order to conduct fieldwork in these two separate locations, therefore, the access to each had to be negotiated separately.

In both cases, the gym owners, both of whom were also involved in coaching MMA in these two facilities, were identified as the main gatekeepers. Therefore, gaining their acceptance of my project was as crucial to making the fieldwork possible as gaining project approval from my University Department. I first approached the subject with Matthew and Mike, the gym owners, by explaining the aim of my project, and what it would involve were they to allow me to conduct fieldwork in their gyms. An important deciding factor for them both was my intention to study MMA from the perspective of a participant – it was important to them, for example, that I was not someone who was unfamiliar with the sport, and that I was not someone with ulterior motives, for example a journalist looking for an exciting scoop. In addition to these initial discussions, I then had to continuously negotiate access to individual practitioners and to small-group training sessions. This was largely due to the fact that these gyms were not formal institutions or organisational settings. Rather, they were spaces where practitioners came in their free time, meaning that the permission given to me by the gym owners did not necessarily allow me access to all participants and training sessions. Consequently, I had to talk about my research with new participants or training groups throughout my fieldwork and explain what it involved, with no guarantees that they would allow me to observe or take part in their training sessions, or conduct interviews with them. Having

discussed the research ethics and the negotiations for access I know move onto explore the process of doing fieldwork.

IN THE FIELD

In September 2010 it was time to begin data collection and the 12 month fieldworkperiod consisted of a combination of activities, the below vignette opens up the discussion of the process of data collection, by giving an example of a typical day in the field:

> I am up bright and early, as is the case most mornings, although it is not exactly bright outside at 6am on an October morning in the North East of England. After a quick protein drink, and before getting on with fieldnotes from the night before, I squeeze in a 3 mile run. I have adopted this routine most mornings of the week to keep my cardiovascular fitness up to the volume of training I am undertaking during fieldwork. Running also is also an exercise in reflection, and for me it always has been. The pace of running, the feel and rhythm of it, offers a steady motion that allows my thoughts to flow. For me, the morning run is almost like a ritual that helps me to think through the previous day in the field, and to tune in my thinking to writing up my fieldnotes. When I get back, I do my usual stretching routine to get rid of the muscle stiffness, and I have a big bowl of porridge and big cup of coffee. The rest of the morning follows the usual pattern: I spend it writing up my field notes using the rough notes I jotted down the night before after getting back from the gym and doing some background reading. At midday I take the bus into town, and then another bus that takes me to the Warriors Gym for a Thai boxing session with coach Jake. I then hang around the gym and observe the fighters' training session that takes place early afternoon between 2pm and 4 pm. Before it starts, I have a coffee and sit around the gym chatting with the fighters before they begin their session. Then it is time to take the bus back into the town centre to the Wolf Pack Gym to carry out participant observation in the two classes that take place on the Tuesday evening. The first session focuses on the stand-up, and the second one is the MMA club session where Matthew and the rest of the guys work on ground skills. The gym is quiet, so I drink another coffee as I jot down some rough notes. Before we start, I get an opportunity to have a conversation with Michael, an experienced practitioner and assistant coach from the core group of guys who trains at the gym regularly. He's been dealing with a bad injury over the past couple of years, so I am able to talk to him about this for a while, and I also arrange to meet him for an interview on Saturday before the MMA session. I start to feel the strain of the training about halfway through the session, but being there and

doing it with the guys is crucial because it allows me to observe the practices and interactions in the gym close up. I get opportunities to have conversations with my training partner and some of my fellow practitioners in the midst of training, when the guys are most comfortable and their training experiences immediately palpable. The final training session finishes late, just before 9pm, and everyone quickly gets ready to go home. There is no hanging around after the late evening sessions as everyone is keen to get home for food and tomorrow they've got work to go to, college to attend etc. I get changed and head home, and while I'm waiting at the bus stop I text my partner to let him know I am safe and on my way. I can hear food and a hot shower calling. When I get home, the practical routines continue – I put my hand wraps, gloves and shin pads out to dry for the next day, and spend another hour and a half after dinner writing down some rough notes from the day's field work and run through the schedule for another day in the field. (Field notes, October 2010)

The data collected through participant observation took place during and around the training sessions in the two MMA gyms, and was structured around these activities. During the twelve months of fieldwork, I attended the specific MMA sessions in both the Wolf Pack and Warriors Gyms. Apart from one Saturday afternoon class at the Wolf Pack Gym, the assigned MMA sessions were predominantly scheduled to take place in the evenings, often finishing as late as 9pm. I participated in and observed anywhere between seven to sixteen training sessions during an average week of fieldwork, and the vignette above offers a glimpse of an average day in the field. The exact amount of training sessions fluctuated, because the opportunities to observe small group and oneto-one sessions changed regularly. The group MMA classes were open to anyone, and while in general the participants in these classes were of mixed ability, in both gyms fighters and more experienced participants often broke off from the main group to focus on their sparring or more advanced practices. Equally important was the time I spent hanging about the gym before, after and in between the different training sessions, because it permitted me to have informal conversations with the participants and build a rapport with them. The participant observation was also shaped in a very practical manner by the nature of MMA practice as an amalgamation of different existing combat sports styles and approaches. Most practitioners also took part in the different stand up, ground and grappling classes organised in both gyms, which included kickboxing, Thai boxing, Jiu-jitsu, submissions grappling and wrestling sessions. Together with specific MMA classes, these other sessions were a staple part of the mixed martial artists'

practices, and therefore were also included as part of the participant observation. Furthermore, the fieldwork also involved participant observation in the small group sessions that took place in the afternoons, evenings and at weekends. These session times varied daily and weekly, depending on the particular small group in question.

The fieldwork process further illustrates the methodological argument introduced in the first part of this chapter, as during data collection, my skills as a MMA practitioner were central in enabling me to collect data, facilitate interactions and build a rapport with other practitioners in the field. Participation meant putting my body on the line in daily practice sessions, and involved plenty of effort, sweat and even some blood, as naturally I did get punched on the nose a good few times. Ethnographers of physical culture and sport, such as Wacquant (2004) and Downey (2005a; 2005b), have also utilised this type of corporeal approach to ethnography, whereby the researcher is immersed in the activity being studied together with the research participants. I spent innumerable hours doing MMA alongside different groups of participants and coaches – I kicked, punched and grappled, and got punched, kicked, taken down, and submitted, and at times I really felt the fieldwork on my body. Nevertheless, there were aspects of the practice I engaged in more in the capacity of an observer – for example, I did not compete and I have not competed in MMA during my fieldwork, because the main focus of this project is the practices in the MMA gym, not the competitive MMA practices. However, I did take part in the sparring sessions with participants in both fieldwork settings. The practices I have described here are what Okely (2007) refers to as the embodied labour of fieldwork.

ON FIELDNOTES AND INFORMAL CONVERSATIONS

I recorded observations, interactions and discussions collected from the field daily in the form of field notes. The literature on ethnography has long acknowledged the craft involved in writing fieldnotes, and has illustrated the myriad forms this practice takes. Clifford, for example, refers to the practice of writing fieldnotes as the "basic processes of recording and constructing accounts of the field" (1990, p. 47) It was not practical to write notes during the training sessions, but when I was just observing I made rough notes, and made sure always carried a notebook and paper with me so that I could make notes at the first possible opportunity, i.e. after the training session in the gym or on the bus back home. As I have already discussed, the training sessions took place predominantly in the afternoons and evenings, and I made further rough notes once I got

home from the field. The timing of the data collection activities determined my daily schedule, and these daily rhythms of fieldwork led me to use the mornings for writing further fieldnotes, carrying out preliminary analysis, planning, writing my research journal reflecting on the research process. While I preferred to write field notes by hand in little notebooks and sheets of A4 paper, at times I also typed some notes up, and I had to adopt this method at one stage during the research when I hurt my wrist in training and was unable to write full notes by hand. I regularly returned to fieldnotes each week to read through them, and often I noted down further comments and reflections for future reference.

Due to the central role of practice in the fieldwork, I also collected data through informal, non tape-recorded conversations that I had with the participants in the gym during practice and in and around training sessions. I recorded this data in my field notes because I discovered, over the course of the fieldwork, that this was equally if not more fruitful than questioning the practitioners during an actual interview. When I discussed things in and around the training sessions in the gym, the practitioners' and coaches' stories of their experiences flowed more naturally. It was part of their daily practices and experiences in the gym to share their experiences with other practitioners. Consequently, asking questions relating to what had just happened in training avoided the artificial, set up nature of a formal interview encounter (Bourdieu, 1999). These informal discussions, and the experiences shared within them, were a rich source of information throughout the twelve-month fieldwork period. The proximity of these discussions to practice was particularly crucial in facilitating research encounters, and also allowed me to use these discussions during interviews as a lead in to questions, for example: "Remember when you were telling me about the time you got injured? So can you tell me a little bit more about what happened, and how you dealt with it?" (Field notes, October 2010). It would have not been possible to collect this type of data through interviews only or as a researcher conducting research as an "outsider".

Woodward (2007) has discussed some of the pitfalls of participatory methods. In her critique of Wacquant's (2004) work on boxing, Woodward argues in favour of the use of "outsider" methods for women doing research on male dominant sports such as boxing. However, research encounters such as those described here suggest otherwise, and the recent ethnography of boxing carried out by Benita Heiskanen (2012) also makes a strong case for female researchers conducting research in the context of male dominant sports. I found being able to engage in practices alongside participants gives

rise to research encounters that would otherwise be impossible for an outsider female researcher, and this might consequently influence the kind of information participants shared with the researcher in a project like my own, in which practices and experiences are the primary focus.

Because the daily informal conversations with practitioners were so fruitful in generating data, I used them in combination with the fieldnotes of my observations. At times, myself and other participants ended up sitting around in the middle of practice discussing a particular topic, before returning to our practice session. Interestingly, practitioners were more than happy to discuss their experiences with me, even with the awareness that I would use the material for my PhD project on MMA. However, bringing out the tape recorder often seemed to put people off. Furthermore, due to the great deal of background noise in the gym during the training sessions, in practical terms it was often very difficult to record informal discussions in a productive way. It appeared that this little device interfered greatly with the flow of discussion, and on a couple of occasions interviewees specifically asked me not to use the tape recorder during a discussion or an interview because it made them feel nervous and as if they were being tested. This, of course, may have not have been the case for Woodward's (2007) participants, whom she describes as "celebrity boxers". As 'celebrities', these participants were perhaps more accustomed to an interview situation, and the fact that she interviewed them for a television program may have added to this level of familiarity. Unfortunately, it is difficult to evaluate whether her outsider role was successful, because, as Heiskanen (2007) notes, the participant voices are distinctly absent from Woodward's account of boxing, and are covered by only four quotations in total.

My participants were non-elite mixed martial artists and coaches who were unaccustomed to interviews, and while they had no issue of speaking to me per se, I always respected their requests not to use a tape recorder. Engelsrud (2005) has emphasised the importance of respecting the informants' integrity whilst simultaneously balancing this with the objectives of the interview and priorities of the project as a whole. In my own research, I felt that an interviewee who was uncomfortable due to the interview being recorded was not conducive to quality of data. Instead, I wrote down rough notes during those interviews and then wrote these up in full afterwards. In addition to participant observation, I collected data using other qualitative approaches, such as the semi-structured interviews I conducted during fieldwork, which I now move

on to discuss and I begin with an excerpt from my reflective commentary which describes an interview situation.

Like all of the formal, semi-structured interviews for the project, the interview with Matthew took place in the gym setting and in this case on an afternoon when Matthew had a spare hour in between one-to-one training sessions and before the classes that were scheduled for this evening. The gym is quiet for the first part of the interview, and we sit on the floor at reception with cups of coffee in a relatively informal fashion, which was the shape the interviews took during the research project. Matthew looks comfortable and we talk for a good while with my tape recorder placed on the floor next to my notebook which has key words on the areas to cover with the participants during the interview, and which I use as a reminder. We sit there discussing and the time passes quickly. People start arriving for the classes chatting and it's getting quite busy, so Matthew suggests we sit in the cage room and close the door so that the background noise will not be an issue with the recording. Despite this, towards the end of the interview a head pops around the door, one of the lads asking if we want another cup of tea and talking along for a few minutes, interrupting the interview. After the interruption, we continue for another ten minutes before Matthew needs to return to work as more people are gathering at reception and changing areas to get ready for the class (Reflective Field notes, March 2011).

The above paragraph describes one of the interview encounters in the field. In total, I conducted nineteen tape-recorded and transcribed semi-structured interviews to complement the main body of field data collected through participant observation. The interviews varied in length from 40 minutes to over 1 hour 45 minutes, depending on how much participants had to say and how much time they had available for an interview.

I began conducting the semi-structured interviews roughly a month and a half from the start of the fieldwork, as before I did so I wanted to settle into the fieldwork and observe whether any other key topics emerged from the field. During this time I developed the interview mind map, with the added topics of pain and injury, as these emerged from the field observations more prominently than I had initially expected. As such, I attempted to ensure I that I was not taking things for granted due to my dual status as a researcher and an MMA participant, even though I had a rough idea what kinds of topics I wanted to discuss with the participants and the coaches in the two field settings. I wanted practitioners and coaches to alert me to themes that were important to their own experiences and practices in the gym, so when conducting the semi-structured

interviews, I used this mind map as a rough guide and a reminder of topics to discuss, rather than as a prescriptive script for guiding the interviews (Appendix H and example of interview transcript, Appendix I).

This strategy allowed the data to emerge more freely instead of being restricted according to questions set by me as the researcher. To encourage participants to share their experiences in an environment that was familiar to them and with which they felt comfortable, all semi-structured interviews were conducted in the gym in and around training sessions, like the interview described in the short vignette above. Furthermore, as the space where the practices were undertaken, I found that the gym facilitated discussions of the training experiences and stories of MMA practice. Bourdieu (1999) highlights the importance of understanding the relationship between interviewer and interviewee to the development of understanding of the research topic. He examines how the empathy and approach of the interviewer can encourage participants during an interview. In my case, my dual role allowed me to use some of my experiences as a practitioner during interviews to encourage participants to share their experiences, and this was one of the advantages of being a "native" ethnographer. The interviewees were selected using the snowballing method as described by Thorpe (2012), a strategy whereby, over the course of the fieldwork, the researcher is introduced to more participants, allowing the gradual identification of key characters in the research setting for semi-structured interviews and informal conversations. However, the fieldwork did not always run smoothly, and I learned a great deal about patience, because on more than one occasion the guys forgot to turn up for an agreed interview. I had to keep reminding myself that, although the research was my first and foremost priority and purpose in life for the time being, this was not the case for the participants. This was one of the things I found challenging about data collection: I felt a little awkward and slightly uncomfortable having to remind participants to turn up for interviews, because they often had to stay late at work, had family commitments or had simply forgotten. This was one of the challenges of fieldwork as an insider: keeping the research priorities in mind whilst dealing with people who were also my friends and my coaches.

In addition to these practices, the fieldwork involved the study and collection of various other materials as a part of data collection. For example, photographs, magazines and books complement the field data within a particular setting (Fetterman, 1998; Gratton and Jones, 2005; Atkinson, 2012), and Wheaton and Beal (2003) have also argued for the importance of context-specific materials such as these to both practitioner identities

and the development of (sub)-cultural knowledge. My practitioner status, along with my MA thesis on ground fighting in MMA, which was conducted as a pilot project for the PhD, meant that I had a good grasp of the different (sub) cultural media channels, magazines, websites and popular books with which the MMA participants and coaches engaged. I spent hours each week reading through MMA magazines, internet forums and books written about MMA in order to fully immerse myself in the setting and topic. I also spent innumerable hours watching visual MMA materials on the Internet, through cable TV and DVDs, some of which were passed on to me by practitioners in the field.

The focus of the data collection was not the content of these materials, and so this content was not part of the field data as such. However, it was a crucial aspect of my fieldwork to keep up to date with news and events in the local, national and international MMA scenes. This was important because local practitioners and coaches in the field closely engaged with what was going at these different levels beyond their local MMA gym. Consequently, it was important for me to be aware of what was going on in order to meaningfully participate in conversations with the guys in the gym, as such news and events were central to conversations and interactions between practitioners. Furthermore, practitioners also used online visual materials in the form of fight videos, skills and MMA fitness training as instructional tools, as well as filming footage of their own training using smart phones. Consequently, due to the central role these played in the MMA practices, I also included in my fieldnotes the ways practitioners consumed and used these different materials in conversations and in practice. I also video recorded some training sessions with a camcorder for visual reference to accompany the fieldnotes. Thus the practices of data collection in the field included a number of methods, all of which complemented one another.

MAKING SENSE OF THE FIELD: DATA ANALYSIS AND WRITING

Finally, I turn now to the process of making sense of the field data. Data analysis is not something that only takes place when the data collection has been completed, but rather, as Aull-Davies notes, "the process of analysis is intrinsic to all stages of ethnographic research" (2008, p. 231). Writing field notes was an important part of this ongoing process of making sense of events and experiences in the field. In practice, I allocated time at the end of each week to read through the field notes I had written and the interviews I had transcribed. During this process, I added analytical comments to the field notes, including references to interviews and informal conversations. I dated these

comments for further reference so that, when the period of more systematic analysis arrived, I could trace the paths along which my thinking had progressed. I used Post-its and the back of fieldnotes or notebooks to draw diagrams to help me make sense of key words and ideas for future reference. The process of transcribing the semi-structured interviews was also an instrumental part of the analysis as it allowed me to immerse myself in the material and to grasp emerging themes. The analysis during fieldwork also allowed me to identify areas that I wanted to query further. In addition to this, I also produced monthly written fieldwork reports for my supervisory team, which gave me the opportunity to critically reflect on the accumulating data, and to identify key themes in consultation with my supervisors. This strategy was significant when dealing with the volume of data that mounts up during a twelve-month period of fieldwork, as it allowed me to work through it gradually and to reassess my data collection strategies in light of emerging themes.

Once I had completed my research in the field, I then used a manual approach to the process of data analysis. Working through the data by hand gave me a thorough and detailed understanding of the data and emerging themes. To begin the systematic analysis, I went through the field, interview, visual and complementary data with reference to the themes I had explored in the fieldwork reports. I began this once I had withdrawn from active fieldwork and data collection. Having identified a number of principal themes, I then trawled through the data again, annotating and colour coding these main themes, making it possible to easily identify them for further analysis. I also used Post-its, mind maps and memos to develop more detailed categories and crossover themes. I also drew mind maps on large sheets of paper, which I then posted on my walls, immersing myself in the data. I put together folders filled with data on different themes, usable quotes and field descriptions, thus bringing together the different types of data collected.

As the main stage of the analysis came to a close, I began to work on developing the insights of the analysis into a coherent whole in preparation for writing up. Ethnographic writing has become understood as a process that involves the *construction* of the research data into a text directed at a particular audience, and an acknowledgement of the ways in which this shapes the final presentation of the data (Clifford, 1986; Denison and Markula, 2003b; Markula, 2003). As a result of these developments, the ethnographer has become more visible in written accounts of fieldwork because of their evident influence in constructing ethnographic knowledge.

As Lamb points out in the introduction to her book on aging, gender and body in North India, "Ethnographic knowledge is always influenced by the life experiences of the anthropologist. What anthropologists perceive in the field and what they write primarily about is whatever matters most to them" (2000, p. xi). The fact that the project mattered a great deal to me as a practitioner meant that it involved extensive personal as well as academic investment. There was more at stake for me when writing up because I wanted to present the depth and nuances of the ethnographic data in a way that I felt did justice to the practitioners. Furthermore, my insider status was both a facilitating and a complicating factor. On the one hand, it meant that I did not have to learn the specific vocabulary practitioners used when they talked about their practice. However, on the other hand this meant that I could not take terminology for granted when writing for an audience unfamiliar with MMA practice. Maintaining critical awareness of this was of paramount importance, and writing field notes allowed me plenty of practice in writing for a non-specialist audience. My supervisors also encouraged this throughout fieldwork and writing up, keeping me grounded by constantly asking questions. Overall, this was almost tantamount to translating the language of MMA practice and experience in order to be conveying its insights to others, and this proved a unique learning experience for me, teaching me a great deal about something that I had, before this project, considered familiar to me.

This process was also particularly challenging due to the differences between the traditional sociological style of writing and the attempt to capture the process, rhythms and movement involved in MMA practice. I am not the only one to have grappled with this issue – for example, Wacquant (2005) and Eliasoph (2005) along with Denison (2003a) have all explored the possible ways of integrating motion and the viscerality of social life into social scientific writing and theorising. During the writing process, I had to find a balance between my own writing skills and what was expected of the format of a PhD, as well as to bring out the movement through writing. The strategy for tackling these issues was developed in conversation with my supervisory team. Throughout this thesis, I have tried to interweave the thick, ethnographic description, conversation and interview extracts with sections of analytical writing in order to develop an in-depth understanding of the processes involved in the varieties of knowing MMA were developed in practice.

CRITICAL REFLECTIONS: GENDERED POSITIONALITY AND TENSIONS OF INSIDER RESEARCH

Qualitative participant observation research is fundamentally different to quantitative research projects (Markula & Silk, 2012). Consequently, it is not productive to evaluate qualitative research according to validity and reliability, both of which are widely used in the quantitative physical cultural studies (Bryman, 2004; Gratton and Jones, 2005; Markula and Silk, 2011). Denzin and Lincoln (1998) note that trying to evaluate qualitative projects based on quantitative criteria would not only be incompatible with the nature of the projects, but it would also be unsuitable and unproductive. As a result, general criteria more suitable for qualitative research have been introduced. These criteria tend to focus on the transparency of the research process, and document the ways in which the research has followed practical and ethical guidelines (Markula and Silk, 2011). I have used this basic criterion as a point of reference throughout this project.

Critical social science also calls for reflexivity, as this is one of the fundamental ways that a qualitative researcher can demonstrate a rigorous systematic practice throughout the research process (Engelsrud, 2005; Woodward, 2007; Markula and Silk, 2011). This is crucial for ethnographic projects because of the intensive immersion of the researcher in a particular setting, and the close, long-term relations between the researcher and participants which are characteristic of participant observation (Coffey, 1999; Aull-Davies, 2008). The importance of reflexivity is paramount in this particular project due to my insider status, due to the fact that I was already a member of the field setting prior to the project. So far in this chapter I have attended to some of the ways in which this shaped different aspects of the project such as access and data collection. I have also argued that the corporeal involvement of the researcher is a valuable research tool and method for collecting data on the processes of developing experientially grounded, embodied ways of knowing. Now I turn my attention to reflexivity and what it means in the context of qualitative research.

Reflexivity involves critically thinking back on why particular research is carried out on a particular topic, why is it carried out using a certain methodological approach, and why particular theoretical and analytical frameworks are chosen. It is also about acknowledging the influence of the embodied researcher on the processes, practices and interactions in the field (Altheide and Johnson, 1998; Coffey, 1999; Engelsrud, 2005). Here, when I refer to reflexivity, I refer to a holistic appreciation of the concept. This is

premised on the idea that reflexivity should be applied all the way through the research process, from the selection of the research topic through to the analysis and writing up (Aull-Davis, 2008; Brewer, 2002). This is particularly relevant in this study, in which my researcher-participant role was underpinned by my insider status and my role as a female in a male dominant setting. Engelsrud, who was in a similar situation in her study on fitness aerobics, has drawn attention to the need to reflect on ways the researcher's lived body "constitutes a basis for, providing access to a research setting and data, and selects what will be the research material" (2005, p. 268) as well as how the researcher is received and understood in the field. I also consider here some of the limitations and tensions to which my insider status gave rise. The following discussion draws on the research journal entries I have been writing from the start of the research as conscious exercise to address these issues. Critical reflections were also an instrumental part of the process of writing my fieldnotes, fieldwork reports and interview transcripts.

GENDER AND THE POSITIONALITY OF THE RESEARCHER

I have already examined how the insider or "native ethnographer" status in the field as a MMA practitioner facilitated access and data collection, and enabled me to develop a rapport with and gain the respect of the MMA practitioners. On the other hand, I also embodied the role of a gendered-other in terms of being female. Okely (2007) has argued that acknowledging how the fieldworker's gendered body is scrutinised and categorised by participants in the field setting is crucial to developing a critical, embodied understanding of the ethnographic research process. While MMA is not an exclusively male environment, it is nonetheless a male dominated sport. I was the only female MMA participant taking part in most of the training sessions in both the MMA field settings. Unlike in the boxing gym in Wacquant's (2004) ethnography, women were not discouraged from attending or denied access to the Scrap Pack and Warriors Gyms. Kick Boxing and Thai Boxing sessions organised by both gyms had regular female participants, and thus women were not completely absent from the gym space. However, in the specific MMA classes and ground training sessions I was the only female participant for most of the duration of the fieldwork.

-

²⁰ By native ethnographer, I refer to the use of the term that depicts a fieldworker who is a participant or a member of the group being studied. For example, Gallinat (2010) describes herself as a native ethnographer conducting research amongst those with whom she shared similar experiences as a young person growing up in East Germany. I have highlighted this point previously in Part One in my discussion of the general research design.

As a part of the field research, I trained with groups in which I was a practicing member prior to the project. However, I also conducted participant observation with practitioners and coaches I had not known before the project, so my dual practitioner-researcher status did not necessarily mean that I was familiar with all the participants. Thus, throughout fieldwork my body was open to scrutiny from practitioners and coaches on a number of levels, at times in ways that I did not expect. There are a few reasons why the research process precipitated these reactions and heightened my critical awareness of them. Firstly, the participants in the different training sessions changed over time, and there were often practitioners who had not trained with women before alongside those who had. Secondly, prior to the research project I did not occupy the dual role of the participant-researcher, and consequently I did not seek to systematically analyse the reactions of other participants to my presence in the way that I did during the research. Once I had begun my research in the field, however, I became more acutely aware of my gender as a consequence of my status as a researcher-participant. The level of critical attention required of me during the research process led me to reflect on my present and past experiences throughout my sporting "career". While this thesis focuses on specific reflections and observations that occurred during this particular project, I can also refer to my earlier MMA experiences with the benefit of hindsight.

My presence in the field, particularly during the early months of fieldwork, elicited a variety of responses from other practitioners. I encountered brief comments from training partners about how they had not trained with a woman before, quickly followed by qualifications of different kinds, usually including statements such as "not that there's anything wrong like with a girl training and that" (Field notes, November 2010). In general I did not experience anyone being outright or explicitly negative towards me because I was female. On other occasions – for example during training classes in which I was the only female participant, or when I was observing the life in the gym with no other women around – my presence raised the attention of participants in a number of different ways. As my femininity became visible to them, the practitioners regularly gestured to and articulated it. For example, during an MMA session one Saturday afternoon, the guys were joking around as we were rehearing some drills. One of the lads told a particularly crude joke, and when the punch line arrived, he farted loud and clear. Peter, one of the regulars, shouted "Wow! Watch your language, there's women here!" This was quickly responded to by the lad, who said to me: "sorry, I forgot you were here" (Field notes, February, 2011). This was often the case, as those

involved got used to me being there. Had I been a female outsider observing the sessions, I believe the participants would have perhaps behaved differently, and might have held back on the joking and banter in which they were used to engaging, which is accentuated in the predominantly male environment of the MMA training.

Some aspects of pedagogy also teased out gendered responses to my presence in the field, and on one occasion this was expressed out loud. During a weekend MMA class on a Saturday afternoon, we were practicing movement sequences that began with taking down our training partner and ending up in a position on top of them. The defense for the person in the bottom position was to wrap their legs around one of their training partner's for control, in order to try and prevent them gaining a more advantageous position for strikes and submissions. Michael, the assistant coach who was running the session because coach and gym owner Matthew was on holiday, wanted us to practice a pass out of the half guard by fixing our training partner's hips onto the mat and sliding a knee through the centre into the top position on the mount or to side control. Having shown us what to do a good few times, Michael asks us to start practicing. Before we did, he called out to remind everyone to "Be careful with groin shots, you don't want to get kneed in the balls, it's something you never really get used to. I've warned you, right then, get started". Following this, walked past me and my training partner Chris, and Peter – who was training nearby – added: "Well, it's easier for you Anu, because well," he paused to consider how to express his point, "well you don't sort of have a groin," replacing the word 'balls' with the word 'groin' after a brief moment of contemplation as he spoke to me. I looked at him and replied, "What do you mean? A knee in the groin still hurts you know, even if you are a girl". "Never thought of that," he added (Field notes, October: 2010). Our discussion was then disrupted by loud grunting sounds from the other side of the gym, as Louis, a young lad who is still in college and training with his friend Kyle, was rolling on the floor in pain, undoubtedly having been kneed heavily in the groin. It was during moments like these that my gendered body became visible in the gym. Traditional martial arts often utilise a gi or kimono worn by the participants that neutralises the visible gender differences. However, in MMA this is not the case, and practitioners often wear skintight 'rash guard-tops' and shorts rather than the traditional attire that is not allowed in MMA. This perhaps made visible bodily differences more prominent. Yet on the other hand, my ability to do MMA afforded moments where my gendered body was de-gendered.

At other times in the field, the discussion of many participants and coaches turned to the involvement of women in MMA, and I also actively questioned practitioners about their views on the topic. Their responses were varied and caused me to reflect on a disjuncture between how they saw my participation and how they regarded the participation of women in MMA in general. Furthermore, there was often a discord in their views on women competing in MMA. Some of the negative views toward women's participation in MMA echoed the masculine values that are deeply embedded in sport, thus revealing the ways in which women's participation in contact sports is viewed more generally as unsuitable, unfeminine or even dangerous (Hargreaves and Vertinsky, 2007a). Furthermore, many women I have spoken to about my MMA participation – including my mother, who does not feel particularly pleased about it – voiced similar thoughts about how getting punched and kicked was not suitable or appropriate for a woman. Other practitioners and coaches I worked with, welcomed women in MMA, yet they nevertheless talked about the constraints and challenges female practitioners face. For example, Matthew, one of the coaches, talked about how it was more difficult for the girls and women to compete in MMA due to the scarcity of participant numbers, which meant there were not as many opportunities for competition as there were for the men (Field notes, December, 2010).

On a number of occasions, discussion regarding my gender and my desire to compete elicited a response from practitioners. For example, Nick, one of the fighters in the gym, once said to me, "Oh don't get your pretty face cut and stuff". Martin, another fighter, told me in the midst of our discussion that he thought training in MMA and Thai boxing for fitness and confidence were okay, but "competing and getting your face smashed in" was not something that was appropriate for women because of the risk of injury involved (Field notes, April, 2011). Views also seemed to be biased due to personal or family relationships, and hence it seemed that, on a general level, most of the guys did not object to women's MMA. However a conversation with Mike and Noel showed that if it was their girlfriends who wanted to do it, both would perhaps consider these risks differently. This issue echo the views explored by Donnelly (2001) in an examination of the gendering of risk cultures in sport, where the risks taken by male and female mountaineers were judged very differently. Within this context, the women were often criticised more vocally for risk taking, because the critics considered that they had neglected their responsibility as a mother, in favour of taking risks. This connects the practitioners' views to the wider gendered power dynamics inside and outside sport and physical culture. In the MMA training sessions I attended, I was the only female participant and there were no women competing in any of the local events I attended during fieldwork.

My status as a female researcher also influenced other aspects of the fieldwork. Gill and MacLean (2002) for example, have argued that female researchers often have to deal with and consider gender-related issues that are not encountered by their male colleagues. However, they also note that this can lead to a greater acknowledgement of the influence of gender to fieldwork. In her project on a male rugby team, Gill encountered many gender-related issues which shaped her fieldwork experience, her behaviour in the field, and influenced the data collection she was undertaking. Some of the issues were not things she had expected or prepared for. For example, as a single woman she struggled to conduct fieldwork in a male dominant environment, and found it difficult to carry out her research while adhering to the ways women in the setting were expected to behave. In my fieldwork, my participant status significantly facilitated the data collection in the field. I also found that because the participants felt I understood their sport, they were happy to speak to me despite me being female. Unlike in Gill's case, where she experienced advances from the rugby players which not only made her feel uncomfortable but made her role as a researcher very challenging (Gill and MacClean, 2002), this was not something I experienced, in part because those in the setting knew my partner, also a martial artist. I would imagine the situation and data collection would have been much more challenging if I was a female who was an outsider to the sport.

TENSIONS AND CHALLENGES OF BEING AN INSIDER

Although being an insider was beneficial in many ways, it also posed some challenges to the research process and gave rise to some tensions, during analysis and writing up in particular. First, however, I will address here some of the gendered challenges, which connect with the above discussion of the gendered positionality of the researcher. Despite being a female researcher in a male dominant environment, my gender did not limit my access to the field settings and MMA practice due to my insider status. However, I have to acknowledge that there were a few doors that were literally closed due to me being female. I did not have access to the changing rooms in this male dominant setting where some discussions between participants also took place. This is a limitation noted by Woodward (2007) in her critique of insider research on boxing,

which is not the same as MMA, but which shares some of the same features, as it is an equally male dominated combat sport. Research on "locker room culture", such as the work by Curry (1991) in sport has also noted the importance of these spaces in understanding sport. However, in the field settings the practitioners did not tend to spend a lot of time in the changing rooms socialising, usually coming to sessions from work, getting changed relatively quickly and then rushing back home or for family commitments after the sessions that sometimes finished late in the evening. Socialising and hanging about tended to take place in the gym reception areas, in which both gyms had sofas and chairs that I had full access to, as I will discuss in Chapter 4. The situation may be different in team sports where the "strategic talks" take place in the locker room or in professional sports where more time is spent in these spaces. However, in this project the primary focus was not in the locker room, yet I do acknowledge this as a limitation of the project.

Another challenging aspect of the fieldwork was the transition into the dual role of participant and researcher. Maintaining this throughout the fieldwork was challenging at times, and quite an intensive experience, physically, mentally and pragmatically, and it meant that I left my goals as a participant on the back burner as the research goals took priority. As Bourdieu (1999) has noted, the researcher always differs from the research participants due to their activities being guided by the pursuit of sociological knowledge. In this regard, I found the withdrawal from the fieldwork and directing my focus on the main phase of the writing up very challenging on a personal level. Although I continued to practice and maintained close connections to both gyms following the main phase of fieldwork, losing the privilege of spending so much time in the gym made me feel a little lost at first. Furthermore, it could be argued that, as a native ethnographer, I might have been inclined to take things for granted through practice that were familiar to me prior the research project. I sought to address this by establishing a critical attitude and reflecting on the field experiences through the practice of writing detailed fieldnotes, and reviewing the data on an ongoing basis. For example, perhaps due to my closeness to the practice I initially did not consider pain and injury to be main themes, although they emerged as such from the fieldwork. Through regular reviews of field data and feedback from my supervisory team, I was able to identify and attend to these themes further.

Closely related to the points discussed above, my insider role was an ongoing source of tension during the analysis and writing up periods. Other insider ethnographers – such

as Malcolm Young (1991), who studied policing in the North-East of England – have discussed how this role can cause tensions in terms of existing relationships in the field, and, most relevant to this project, its influence on the process of analysis and writing up. Although Young's (1991) research is now dated, and was conducted in an environment completely different to field settings explored in this project, I can still closely relate to the tensions he felt while developing his field experiences into the final product. For me, the most prominent tension that emerged during analysis and writing up arose from my desire to negotiate my passion for MMA from the perspective of a practitioner and do justice to the voices of the practitioners with the need to connect with wider social scientific concerns and debates

This issue of being too close to the topic has been explored in critical work. Woodward (2007), for example, has critiqued the personal involvement in the field setting of some male ethnographers – namely Wacquant (2004). In particular, she critiques becoming so immersed in the setting that the (male) researcher ends up inevitably producing an account that is sympathetic to and uncritical of the field. While I do not completely agree with Woodward's (2007) commentary, I agree that it is an issue that needs to be addressed as, like boxing, Wacquant's (2004) area of research, MMA has been seen as controversial due to the high level of physical contact allowed in the sport. I was fortunate to work with a supervisory team that was aware of this issue from the start, and they kept me grounded and on track at times when I found it challenging to make wider connections during analysis and writing up. Although at no point was I under the impression that MMA was unproblematic, my team firmly guided me to step outside my comfort zone, both as a practitioner and academically. In consultation with my supervisors, I was able to negotiate some of these tensions and develop analytical acuity and data in a more balanced manner.

Before I put forward my concluding thoughts, I want to make one final point, because I believe the tensions I experienced during the research process also reflect some of the underlying debates on the position of sport as a legitimate sociological concern. Despite a rich body of theoretical work and empirical research, sport still appears to occupy a precarious position on the margins of mainstream sociology, and this was reflected in the concerns of my supervisors to ensure that the themes explored in the thesis had wider social scientific relevance. I believe that making these wider connections between sport and mainstream sociology is crucial to taking the study of sport from the margins to its rightful place. Many issues and social tensions played out in sport have value to

mainstream social science. Therefore, although at times it has been a painful process, the ongoing dialogue with my supervisors allowed me to develop a critical approach to a subject matter very close to my heart, and helped me to draw out what it is that the study of MMA practice can do for sociology of sport and beyond.

CONCLUDING THOUGHTS

The aim of this chapter was to provide a critical, reflexive overview of the methodological perspective and practices utilised in this PhD research project. The chapter has been organised thematically into three sections, each attending to particular aspect of the research process: 1) foundations, 2) process and practices of doing ethnography, and 3) critical reflections. In the first part of this chapter, I set the scene by outlining the methodological foundations for the study, ethnography as a research design. Here, the process of conducting research is understood as inherently embodied (Engelsrud, 2005; Wacquant, 2005; Okely, 2007), which stems from the phenomenologically oriented theoretical framework that underpins the study. Consequently, I make the case for participant observation due to the value it has to the study of experience and practice as the ground for developing embodied skills and understanding. After the discussion of the general research design, I moved onto consider the processes and practices of doing ethnography, providing an overview of how the research process unfolded. I approached this through three different themes: first exploring the background work done in preparation for fieldwork, including negotiations of access; secondly, I described and critically overviewed the different practices in the field, including collecting data; and finally, I outlined the activities I undertook in making sense of the data in analysis and writing up the research data. In the third and final part of the chapter, I focused on critical reflections, and I reflected on different aspects throughout the research process from the selection of the topic to the fieldwork practices and subsequent analysis. Furthermore, I reflected on the positionality of the participant-researcher, as a female MMA participant conducting research in a male dominant environment, and the challenges and tensions of insider research.

What needs to be taken on board here is the way that the theory and methodology chapters work in concert to frame and guide this ethnographic research project. These two chapters are closely entangled in the pursuit of researching the experiences and practices of MMA practitioners and coaches in a manner that fundamentally

understands these phenomena as corporeal and generative of meaning, understanding and knowledge. A central part of this approach is also the embodied involvement of the researcher as the instrument in the research process in a context where doing is of paramount importance, such as the context of MMA and, I would argue, sport and physical culture in general. Furthermore, throughout this chapter I have attempted make visible the craft of doing ethnography by critically discussing and describing the relevant research processes and practices with a consideration for the relevant methodological and empirical literature. After setting the scene in the first three chapters, I now move onto to explore immediate research context and the data in the next four chapters.

CHAPTER 4: ENTER THE MMA GYM

INTRODUCTION

"It's an ordinary day in the life of the Warriors Gym: It is late afternoon and the gym is busy. The fighters' training session has just finished, and some of the guys are getting changed quickly and are virtually out of the door within ten minutes. Training done, they have work to go to, so there is no time to spare. A handful of others, including the MMA coach Jake, are taking their time cooling off, doing some extra stretching and unwrapping their hands. As usual there are a couple of one-toone sessions in progress, and more people arrive as I sit on the sofa speaking with Jake about training the fighters. The sound of gloves hitting pads, kicks connecting with the shield, and the instructions of the coach provide a familiar backdrop to our conversation. A couple of the guys are doing sparring in the boxing ring – the iPod dock is blasting out music of their choice which is interspersed with the loud buzz of the timer that structures the periods of sparring and recovery. Some of the girls are sitting on the sofa near the fitness training awaiting the start of the Conditioning session. I go to get changed for the MMA class that is due to start in the next half hour. There is a boxing session scheduled for the stand-up area so we are training in the MMA and ground training area in the far corner of the gym. I greet some of the regular MMA guys who are also waiting for the session to start, all of us engaging in the almost ritualistic preparations for the session: getting gloves, shin pads, mouth guards ready, and leaving our shoes in assigned areas off the mats. I sit on the mats wrapping my hands, exchanging a few words with Andy, one of the guys getting ready for competition next weekend. By the time we start, the conditioning class is in full swing – people are running, lifting and jumping, and the reception/social area has cleared as everyone is ready to train. Jake and Tom are coaching the session and it starts, as usual, with a warm up. Our bare feet make a soft sound on the matted surface of the training area, which is only interrupted by Jake's instructions. As the warm up progresses, the chatting quiets down, and after a thorough stretch we start. At this point Tom asks three of the fighters to follow him to the cage to do some fight preparation. The different activities of the gym go on until late in the evening, when the gym quiets down again, ready for another day. (Field notes, April 2011)

While the previous chapters have acquainted the reader with the theoretical and methodological underpinnings of this study, this chapter introduces the two MMA gyms

in which the ethnographic field work was conducted: The Wolf Pack Gym and The Warriors Gym both located in the North East of England. The aim here is to provide a description of the immediate field settings of this project, which investigates the experiences and practices of MMA. Understanding the context in which learning and coaching MMA takes place is crucial for this enquiry, as the gym is the space in which MMA practices unfold, where learning and coaching take place, and therefore necessarily shapes the ways of knowing skill, pain and injury that are developed in practice. This is in line with Wacquant's observation on boxing that "(the gym) is the crucible wherein the technical skills and strategic knowledge whose delicate assemblage makes the accomplished fighter are honed" (2004, p.15). Consequently, in order to develop an understanding of MMA practices and experiences and the varieties of knowing MMA they generate, it is of paramount importance to canvass the fabric of practices, social relations and spaces that are not readily revealed to those uninitiated to MMA practice.

I begin by introducing the Wolf Pack and Warriors Gyms, offering a brief introduction to the background of both. I continue by introducing the key characters in each setting: the coaches, the fighters and the recreational MMA practitioners whose experiences and practices take centre stage in this study. Who they are, and the relationships they have with MMA, shapes their practices, experiences and relationships within the social setting of the gym. In the second part of the chapter I also describe the social fabric of these two MMA gyms, which are closely connected to the practitioners' and coaches' experiences and involvement in practice in these settings, where doing MMA and being there is instrumental to the social hierarchy of the gym and practitioner identities The focus here is not just on the fighters, because, as in any sport, the practitioners and coaches in a particular settings engage with their sport at different levels, and competitive MMA is only one part of the story. Finally, I discuss the particular MMA practices in the Wolf Pack and Warriors Gyms. The discussion is framed by the gym spaces in which the practices unfold, illustrating how they have been designed to accommodate the different aspects of MMA practice.

INSIDE THE MMA GYMS

The two MMA gyms are the immediate context for MMA practices and experiences, as these are the spaces in which training, coaching and social relations/interactions between participants occur. The importance of the spatial context in relation to ways of knowing MMA lies in the way that these particular practices and experiences become imbued with meaning through the interaction of practitioners and coaches with these gym spaces. These spaces are significant in relation to developing both skilled MMA abilities and the varieties of knowing MMA.

The two gyms that constitute my field of study are located in the North East of England. Although the gym spaces are the focal point of this study, they nevertheless exist within and in relation to their surrounding locales, which anchor and shape not only the gyms themselves, but also the lives of their participants and coaches. The local context of both gyms is characterised by the transition to post-industrialisation that began during the latter part of the twentieth century, and which has since transformed the socioeconomic landscape of the North East England. Nayak (2006) examines how the transition from an era of industrial prosperity to one in which service and cultural industries are dominant has a profound influence on the local material landscape and formation of identities, in particular those of young men whose lives are embedded in these processes of re-structuring and re-configuration. The Wolf Pack Gym and Warriors Gym – and the lives of the coaches and practitioners who are predominantly young men – are embedded within the backdrop of these wider transitions in their immediate locale. The gyms do not exist in complete isolation from the world around them, and it is therefore important to introduce the wider context in which they are situated. Furthermore, these local gyms are connected to the wider context of MMA which I introduced in Chapter 1. Later in this chapter, as I discuss the social fabric of these MMA gyms, I will pick up on the ways in which the social positioning of the practitioners shapes their involvement and development of ways of knowing MMA. In addition, I will also examine, in Chapter 7, the ways in which knowing injury can become classed.

THE WOLF PACK GYM

The first of the fieldwork settings, the Wolf Pack Gym, has been established for 19 years in the heart of the City Centre, almost hidden away down a narrow cobblestone street. Owner and head coach Matthew tells me how the Wolf Pack Gym was the first gym in the area to start teaching MMA in the late 1990s. He originally set the gym up to make coaching, which was a mere hobby for him at the time, his full time profession, and to secure a steadier income for himself and his young family (wife and two children). For the first couple of years of its existence, the gym was located a couple of

streets away, before moving to its current location. The gym itself is situated on the second floor of a building, and above a shop and fitness gym. The access to the gym is through a black wooden door that is almost unnoticeable unless you know what you are looking for. The bottom door is locked to stop unwanted visitors hanging about in the staircase, so you need to use the intercom to get through the door and upstairs to the gym. The loud noise of the buzzer sounds as you open the door. This is designed to inform those in training of anyone entering the gym when the reception is unsupervised, which is only the case during the group sessions for a couple of hours a day. The gym occupies the whole of the second floor of the building, and consists of the reception area, toilets and changing rooms, and one small room that accommodate an almost fullsized MMA cage. A narrow corridor leads to the main training area of the gym, divided into two by supporting pillars at the centre of the room. On one side the floor is covered by a carpet, with vinyl-covered mats piled neatly in one corner, and two punch bags hanging from a bracket screwed into the ceiling. The opposite corner of the room accommodates some fitness training equipment, including a stationary bike and a speedball. The other half of the gym accommodates a matted area covered by a soft canvas suspended around a wooden frame, with equipment storage at the far end of the room. In the near corner both the floor and the walls are covered by green jigsaw mats (Field notes, September 2010).

The Wolf Pack Gym organises a range of weekly training sessions, most of which are run by head coach and gym owner Matthew. These include group classes that are designated MMA club sessions, as well as classes that focus on one or more of the elements of MMA, e.g. stand up in the form of Thai-boxing, kickboxing or boxing, and ground or clinching oriented sessions, e.g. wrestling and ground fighting. The MMA practitioners mix and match the different training sessions available with the specific MMA classes. During the period of study, participants could either pay £6 for individual classes, or they could pay monthly for a certain number of sessions, which worked out cheaper for them. The classes take place predominantly in the late afternoons and evenings, except for those which take place on Saturday mornings and early afternoons. Monday evenings are dedicated to conditioning and wrestling, Tuesdays are for kickboxing and MMA club, and on Wednesday evenings Luke, an MMA and boxing coach, runs a boxing session. The Wolf Pack Gym is closed on Thursdays, as this is Matthews' day off, and Fridays are reserved solely for small group and one-to-one sessions. On Saturday mornings, the gym organises a kickboxing and a

MMA session which finishes mid afternoon. Luke coaches a boxing session on Sunday afternoons, but otherwise Sunday is reserved for martial arts seminars and small group sessions. The small group or one-to-one sessions are typically scheduled around the group class timetable, or they alternatively use the small room, thus allowing different training sessions to take place simultaneously (Field notes, September 2010). A small recreational group of practitioners who train with coach Keith also use the Wolf Pack gym space for MMA training, usually late in the evenings and the weekends after the group classes have finished (Field notes, August, 2010). In addition to MMA training, the gym also offers more traditional martial arts training and two children's classes on Saturdays, as Matthew is also an instructor in a traditional Japanese art.. What is important to note is that, although the sport of MMA has encountered some of its most vehement opposition from the traditional martial arts and boxing community, in the gym space amongst coaches and practitioners the different practices co-exist happily.

THE WARRIORS GYM

The second gym setting for this project is the Warriors Gym, which in comparison to the Wolf Pack Gym is much more recently established. The gym emerged as a result of a partnership between four friends who wanted to set up their own facility for Thaiboxing, MMA and fitness conditioning. They brought their resources together and found, by chance, an empty warehouse in a commercial building that accommodates a number of commercial units and charities, which had been previously used as a storage warehouse. The building is set back from the main road and is situated a few miles from the City Centre. It is surrounded by a couple of tower blocks and a cluster of tired looking semi-detached houses. Access to the gym is gained through a door at the front of the building, again very unassuming to the untrained eye. The only thing informing you of the existence of the gym is the logo painted on the door. Because the Warriors Gym is much less established than the Wolf Pack Gym, during the fieldwork parts of this second gym were still under construction and evolved during the twelve-month period. As you enter through the door you are greeted by the open gym space, with a central supporting pillar and several smaller pillars that divide the gym into four different sections. The reception desk and social area with sofas is right next to the door. In the first half of the gym there are two boxing rings set up, with a near full-sized cage occupying the space in between them. The male and female changing rooms are at the back of the gym next to the equipment storage locker, and the gym shares toilets with

the rest of the building. Three long kick and punch bags hang from the brackets set on the supporting pillars that surround the matted training area in the middle of the gym. Because the gym is also home to a fitness facility for conditioning classes, the other side of the gym accommodates a large fitness training area, with weightlifting equipment and rowing machines. Finally, the far corner of the gym is a matted training area, separated from the rest of the gym by a cage-linked fence, simulating the MMA cage walls (Field notes, September 2010).

As in the Wolf Pack Gym, MMA shares the gym space with other practices, and the Warriors Gym hosts a large community of Thai-boxing practitioners. In addition to MMA, the Warriors gym offers Thai-boxing, boxing and Brazilian Jiu-jitsu classes and fitness conditioning sessions. The group classes, which take place in the evenings and at weekends, cost the participants £5, or alternatively they can pay a monthly fee for a fixed number of classes. The Warriors Gym offers both specific MMA sessions and specialised classes in which practitioners can focus on one aspect of MMA. Thai-boxing classes are scheduled for Monday, Wednesday and Friday, MMA for Tuesday and Thursday, and Jiu-Jitsu for Tuesday, Thursday and Saturday. On weekday afternoons a two-hour time is slot reserved for fighters' training, and the fitness training sessions are scheduled for Monday, Wednesday and Friday evenings. Jake and Mike coach the Thaiboxing sessions, Jamie runs the Jiu-Jitsu classes, and Mike, Jamie and Tom are in charge of the MMA training. Like the Wolf Pack Gym, the Warriors Gym also offers one-to-one and small group sessions, which are predominantly scheduled in the mornings and early afternoons. Different sessions are often ongoing simultaneously in specific areas of the gym, especially in the evenings when most of the group classes take place (Field notes, September 2010).

THE SOCIAL FABRIC OF THE MMA GYM: THE COMMUNITY OF MIXED MARTIAL ARTISTS

Having introduced the two gym settings, I now turn to some of the different characters and groups of practitioners who engage in MMA practices in these two gyms. The practitioners and coaches in the Wolf Pack and Warriors Gyms all have different relationships with MMA, which are shaped by their level of involvement, experience and their own social positioning. These factors shape how they are oriented towards MMA practice, experience, and the social fabric of the gym. The groups of practitioners that train in the Wolf Pack and Warriors gyms can be loosely placed into three

categories: recreational practitioners, fighters and coaches.²¹ However, it is of paramount importance to understand that these categories are not fixed or mutually exclusive, but individuals can be part of two or more categories simultaneously, or over a period of time as their experiences accumulated and focus of their involvement changed. This section also demonstrates the central role experience plays in developing ways of knowing MMA, and how it shapes the social hierarchy of the Wolf Pack and Warriors Gyms.

In terms of consistency, numbers, age-range and background, one of the largest and most heterogeneous practitioner groups is the recreational, non-competitive group. These practitioners usually take part in the group classes, one-to-one sessions or small group sessions. The defining characteristic of this group is their non-competitive and regular involvement in MMA. Recreational practitioners usually train between two to seven times a week, and it is their regular involvement in MMA which provides the instrumental foundation for the development of skills and knowledge, as well as establishing their place in the social milieu of the gym (Field notes November 2010). In social studies of sport, it is generally acknowledged that the repetitive rehearsal and involvement in an activity over time is the basic pre-requisite for acquiring skill (Downey, 2006; Wacquant, 2004). Despite the non-competitive nature of their involvement, many recreational practitioners spend a significant amount of time, money and effort on MMA, and consequently the sport plays a significant part in their lives. It is a pursuit best described as a serious form of leisure. Both gyms have five to ten regulars, but at times up to ten, recreational practitioners. This figure is subject to fluctuations; practitioners who have been away return, newcomers, arrive, and others disappear for a period due to work, injuries and other commitments. As Wacquant (2004) notes in his ethnography on boxing, the turnover in the boxing gym is quite high, and this is also characteristic of both the Warriors Gym and the Wolf Pack Gym to varying degrees. During the fieldwork, the faces changed – young men would try the sessions, some stuck around for a while, whereas others would never be seen again.

At the other end of the spectrum to recreational practitioners are the fighters. Although competitive practices are not the main focus of this study, the fighters are still practitioners and important players within the practical and social fabric of both gyms. They practice MMA much like the recreational practitioners, but their training also has

-

²¹ During the fieldwork, data was collected evenly across the three practitioner groups in terms of formal and informal interviews and field notes.

a particular focus on competitive MMA. Importantly, all of them have a background in regular recreational practice that has enabled them to gain experience, skills and knowledge. During fieldwork, each setting had between five to eight fighters at different stages of their fighting careers competing in local-level fight shows. The MMA fighters in the Wolf Pack and Warriors Gyms include both these more experienced fighters and novices taking the first steps of their competitive involvement (Field notes, October, 2010). Fighters in the field setting competed either as professionals or semiprofessional, but none of them competed in the amateur category. In the absence of international or national governing body for MMA, these categories have a precarious relationship to fighting experience. It is the individual fighter's choice, rather than their previous fighting experience, which determines whether they wish to compete at professional, semi-professional or amateur level. However, the rules change from one category to another, and professional fighters are allowed to fight by full MMA rules, whereas in the semi-professional category no head strikes are allowed on the ground. This has implications for the fighters' and coaches' daily training practices. The status of a fighter is something that can only be assumed by those who step into the cage to face them in competition. Even when fights do not end successfully, stepping into the cage to compete places these practitioners in high regard within the social hierarchy of the gyms. Of course, particularly successful fighters are admired and valued by other practitioners, yet this admiration is not just for how well they do, but also for their commitment and readiness to test their skills and knowledge against another practitioner in competition (Field notes, December 2010).

The primary role of the coaches in the Wolf Pack and Warriors Gyms is to guide the practitioners and fighters in the process of experimentation and discovery that is involved in developing of ways of knowing MMA. In practice, this involves running the various training sessions that take place in the gyms, including group classes, small group sessions and one-to-one sessions, in addition to the day-to-day running of the gym. All of the coaches have a background in another martial art, combat sport and coaching prior to their involvement in MMA, and they are the most experienced of practitioners. It is their experience that affords them the ability to teach others, sharing their experiences with their apprentices. There are seven coaches in total involved in coaching training sessions in these two gyms. The coaches are male, white and British, and are aged between twenty-nine and fifty-five. None of the coaches originally took up combat sports to become a coach, but this had come as a part of their development in

MMA. The combat sports the coaches had been involved in prior to MMA shaped their approach to MMA practices and coaching. They all enjoy sharing their experience with others and witnessing their skill development and learning experience. Two of the coaches are also owners, and run their gym as their main source of paid employment. For the rest, however, coaching is a part-time activity alongside other work. The coaches' status is predominantly based on their experience and word-of-mouth amongst fighters and practitioners. Three of the coaches hold specific coaching certificates from a national combat sport association, whereas the coaching status of the others is supported by their experience as fighters and practitioners that is equally valued in terms of their coaching status (Field notes, October 2010). The coaches also work closely with the fighters in preparation, during and after competition, and during fights work as their main corner man.²² The coaches often develop close working relationships and friendships with the fighters and recreational practitioners they coach, socialising together and supporting practitioners with all aspects of MMA training. Having introduced the practitioner groups in the fieldwork settings, I now introduce some of the individual MMA practitioners and coaches in the Wolf Pack and Warriors Gyms, and explore the social setting of these gyms.

THE WOLF PACK

In the Wolf Pack Gym, the regular group of recreational practitioners is close knit. The group also includes some of the fighters who no longer compete but who have returned as recreational practitioners because they have strong friendship ties to the regular group of practitioners and the social life of the gym. Nick (27), Steven (28), Mark (26), Michael (30) and Kevin (26) are all part of the core group of practitioners and friends. They often socialise with the core group of fighters and regulars outside the gym, going on nights out, going to football matches and going for drinks in the pub. All these young men work full time in manual or service sector professions; Steven is self-employed working in construction and Nick also has his own business. Mark works in the fitness industry, while Michael works full time in customer service. Having competed in the past, their social positioning in the gym is established. Ash (30), who is a healthcare worker trains on his free time when his working hours allow it. Some of the more recent

_

²² A fighter is allowed to have three people looking after and advising them during a competition. These are the corner men who are allowed at cage-side and during the contest can shout advice to their fighter. In between rounds, they get access to the cage, and can give the fighter further advice and water.

recruits to the gym's regular group are younger, and are working to establish their place in the regular training group by turning up for training. This group includes young men like Louis (18), Ray (17), Kyle (20), Carl (19) and Ronnie (18), some of whom are students, just finished school, or starting at college. Ronnie is the only one out of this junior cohort in full-time employment, working in construction whilst applying to go to University. The older regular practitioners all have backgrounds in other combat sports, predominantly kickboxing and boxing, whereas the younger men have started with MMA, apart from Carl who had done traditional Japanese martial art for three years before getting into MMA.

Finally, a group of friends trains on a recreational basis at the Wolf Pack Gym, coached by Keith, who trains and coaches outside his full time working hours in the fitness industry. This group trains four to five times a week and it is the group with which I began my own MMA training five years ago alongside the classes organised at the Wolf Pack Gym. The other two current members of this group are Harry (40) and Joe (25). Harry got involved in martial arts for the first time as a youngster, but stopped while going through school and university, but he had always wanted to take it up again since he saw Bruce Lee's movies for the first time. After getting involved in Kung Fu thirteen years ago, he met coach Keith and continued to train with the group. Harry also got into Brazilian Jiu-Jitsu and eventually the emerging MMA format, and he was keen to develop a wider range of skills. He works full-time as a civil servant and is educated to Master's level. Joe, on the other hand, got involved in martial arts more recently after having seen MMA on television a couple of years ago, which lead him to train for a year in traditional Japanese Jiu-Jitsu. He saw the recreational group training when visiting the gym and asked if he could give it a try, and he has stayed ever since. Joe works as a manual labourer for an industrial company, a job he has held since finishing school. The group socialises together outside training, and frequently meets up for coffee before and after training. Over the past few years, this group has witnessed a number of other practitioners come and go.

The fighters in the Wolf Pack Gym, the final cohort of practitioners are all at different stages of their fighting careers. In the first fieldwork setting, Noel (25), Peter (26), and Rick (25) are all novices, and were inspired to compete after having seen others from the gym develop their skills to the next level through competition. All three work full time: both Peter and Noel work in skilled manual professions and Rick is a team manager working in the energy industry. They work because they all have families to

look after, and competing in MMA does not offer anywhere near the income or the consistency required to provide for their families. Rick first got involved in MMA after helping out his brother in law in training, and he explained that his competitive motivations stem from his desire to be the best he can at what he does. In the Wolf Pack Gym, there are also four experienced fighters who regularly compete. They all have previous experience of competing in other sports before MMA, mainly in boxing and kickboxing. Martin (30), Sam (31), Nathan (30), Craig (29), and Jack (30) all have full time jobs, families and children alongside their MMA fighting careers. They train at least six to seven times a week, twice on some days, including the conditioning practices. These fighters all told me about the challenges involved in trying to combine family, work and training. Martin, who is the most experienced and successful fighter from the gym, had been introduced to MMA after he suffered a broken nose through boxing and had to find other ways to train for a while. One of his coaches at the time then suggested MMA ground training. Nathan and Jack told me they enjoy the excitement of the fight as much as the opportunity to test their skills. These fighters are an important part of the core group of practitioners in both gyms, having gained the respect of others by testing their skills in competition.

Matthew (42) is the head coach and owner of the Wolf Pack gym, and runs classes together with Luke (30) and assistant coach Michael (30). Keith (55), who coaches the recreational group, also runs small group training sessions there, but has no involvement in the general training sessions and classes. All of the coaches have a wealth of experience as practitioners, as coaches and as competitors. Matthew has a total twentyfive years of experience in Kickboxing, Ninjitsu, boxing, submissions wrestling and Brazilian Jiu-Jitsu. He told me how he originally got into martial arts having been inspired by his father's involvement in boxing. Before becoming a full-time coach and setting up his own gym, Matthew worked in a manual job and did security work. The choice to make coaching his full-time employment was made after the arrival of his first daughter. Coaching offered a steadier and less risky income than security work. For Luke, who works in a skilled manual profession, coaching grew out of his own involvement as he gained more experience, and recently he has been able to make coaching his full-time profession. Luke started with boxing and then continued to develop into kickboxing, and when MMA arrived he saw it as progression, combining these different skills together. The other two coaches have full-time jobs alongside coaching: Michael works in a service industry job in an office, and Keith works full

time in the fitness industry. Both have training backgrounds in a variety of combat sports – Keith, for example, has over thirty years of involvement and has a background in Kung Fu, boxing, Thai boxing and, most recently, Brazilian Jiu Jitsu and submissions grappling, which he started over ten years ago. Michael has a similar training background to Luke, and a couple of years ago he got into coaching as a result of severe injury, which prevented him from competing.

THE WARRIORS

The Warriors Gym has a strong Thai boxing group alongside the MMA practice, and this community has a more established group of practitioners compared to those practicing MMA. Throughout the fieldwork, the set of recreational practitioners varied, and was more transient from week to week compared to the Wolf Pack Gym. The fact that the Warriors' recreational participant base is more transient is most likely due to the fact the gym was only set up four and a half years ago. However, there are nevertheless a number of regulars. These recreational practitioners, Liam (19), Darren (20), Phil (18) and Warren (21), are young men all of whom live in the gym's immediate surrounding area. They are white, British, aged between eighteen and twenty-five, and all had their first contact with MMA through either the Internet or pay per view TV and the Ultimate Fighting Championship (UFC). They thought that this new sport was exciting, and after seeing top fighters in the cage wanted to try it themselves, and so searched the Internet for somewhere local to train. Most of these recreational practitioners are still at college, while others work part time, such as Darren, who works part time at a local leisure centre, and Phil, who works part time at a local car wash/garage.

In the Warriors Gym, undergraduate student Andy (21) who also works in the leisure industry, and part-time college student James (22), are competitive novices. James got into MMA after his brother started training and competing. Andy had competed in both Thai boxing and MMA, but towards the second half of fieldwork he took a complete break from MMA to allow him to recover from injuries and focus on his studies. Kai (25) who has had some competitive experience works full time in the service sector. Fighters with some competitive experience such as Troy (21) and Lee (20) are both full time undergraduate students. There are also more experienced fighters in both settings who have varying degrees of competitive experience in MMA and other combat sports. In the Warriors' Gym, Tom, (30), Chris (32) and Jake (39) all competed in other combat sports, including Thai boxing and Vale Tudo, before competing in MMA. In addition,

these three are also coaches as well as fighters.²³ Having fought before, they saw competition as the next logical progression because it enabled them to test the skills learnt in the gym further. While their Thai boxing background gave them skills they could use in MMA, there were areas of MMA knowledge it did not prepare them for, notably the ground dimension and submission techniques. Thus their practitioner background shaped their approach to learning MMA from the outset.

The coaches in the Warriors Gym – Tom (31), Mike (30), Jamie (29) and Jake (32) – were all still active fighters at the time of the fieldwork. Tom focuses primarily on MMA, whereas Mike and Jake compete in both MMA and Thai boxing. Originally coming from a Thai boxing background, Mike and Jake had moved into coaching and competing in MMA more recently, because they had become increasingly interested in it having been involved in combat sports since they were youngsters. Jake told me once that he loved MMA as soon as he tried it as it gave him a way to progress and learn more. Tom, on the other hand, had trained with a Vale Tudo coach, and transitioned to MMA with experience of the more open-ended format of Vale Tudo and ground skills from Brazilian Jiu-Jitsu. He enjoys coaching because of the challenge of teaching students the mixture of skills involved in MMA. Passing on and sharing their skills and knowledge with others, is an important motivation for all three coaches. The coaches are part of a group of five friends - three martial artists and two strength and conditioning coaches – who set up the gym together in an industrial unit three and a half years ago.²⁴ Coaching and running the gym is main source of income for Mike, but he has done some security work in the past. Both Tom and Jake also have second jobs in addition to coaching and competing - Tom also does security work, although he is hoping to focus on competing full time in the future, and Jake works as a taxi driver in addition to his coaching work.

In this section, I have introduced some of the key characters within the fieldwork settings, and have shown how their different levels of involvement shape their relationship to MMA practice: the training of the recreational practitioners and that of the fighters differs in frequency, intensity, composition and the aims which shape their

²³ This illustrates the ways in which the different practitioner categories are not mutually exclusive.

²⁴ Chris and Jake told me how, as youngsters, they did not have many training opportunities or activities in the area in which they lived. Once involved in coaching, they decided to set up a training facility within the community so that youngsters had opportunities to do something constructive through training, as it was training that, according to their own words, had kept them out of trouble.

training practices. The duration and intensity of their experience is significant for the gym as a social setting, which shapes the participants involvement and standing in the social hierarchy of the gym. Both coaches and fighters had previously been committed recreational practitioners, training in the gym over a sustained period of time, and without this experiential knowledge base they could not assume the role of a fighter or a coach. To assume the status as a fighter can only be obtained by taking part in competition – there is no other way. That a recreational practitioner cannot become a fighter or a coach overnight underscores the importance of experience and doing in developing of ways of knowing MMA, as well as its role in the social hierarchy of the gym. Becoming part of the core group of practitioners is achieved through continuous commitment to practice, through being there and doing it. It is not always just about how skillful you are as a practitioner, although skillful practitioners and fighters are admired and respected by others, but also about turning up at training sessions day after day, week after week. Just talking about doing it is no good, and receives no sympathy from other practitioners. Like any other social environment, the MMA gyms have their own social dynamics, and in these dynamics experience and commitment are important credentials. Furthermore, the differences in practitioners' backgrounds slides out of view to a degree during practice and whilst in the gym.

From the above discussion, it also becomes apparent that the MMA gym is a predominantly male environment, even though the gyms are not exclusively male spaces. During the fieldwork, all the participants and coaches in the MMA sessions were male, apart from me and with the further exception of one female Thai boxing participant who also took part in couple of MMA sessions towards the end of the fieldwork period. MMA practice thus emerges as a young man's game, as the recreational practitioners and fighters in these two gyms are between the ages of eighteen and thirty-nine, and with the exception of recreational practitioner Harry, most are in their early or mid twenties. The coaches are also all male, and aged twenty-nine to fifty-five. The fact that the coaches tend to be slightly older reflects the way in which coaching status in these gyms is grounded in accumulated experience over time. However, as I have illustrated, some of the fighters also combine coaching and competition, which adds to their status as coaches. These two MMA gyms are predominantly, but again not exclusively, white-British environments: one practitioner is British-Chinese, another one British-Asian and two practitioners who identified as Black-British. However, while no systematic research has been done on the topic, this is not necessarily a reflection on MMA as a sport, as there are MMA practitioners all over the world, a fact reflected in the backgrounds of elite MMA participants.

All of the recreational practitioners and fighters are either in full or part-time employment, or they are in vocational education. Many of the fighters work in manual or service professions, but there are a couple of exceptions to this. The recreational practitioners are an even more diverse group socio-economically, and include students, builders, roofers, a civil servant, a PhD student, a paramedic and a royal marine to mention a few. Some have left school and started working, while others are university educated to degree or postgraduate level. As such, the individuals involved in MMA in these two gyms come from diverse social and educational backgrounds. Consequently, whether their involvement in MMA is recreational or competitive, it takes place alongside either work or education, and for many of the practitioners MMA is either a contrast to their daily job or a serious recreation which gives them an opportunity for self-expression, and gives them challenges that their work does not offer them. Often during my fieldwork, the practitioners expressed frustration with the relative lack of fulfillment that their job offered, and they viewed work simply as means to an end, which is probably the case for many people when asked about the contrast between their work and leisure time. Many authors, including ethnographers of boxing Heiskanen (2012) and Wacquant (2004), note how social divisions are subverted to a degree during practice in the gym. This also appears to be the case in the Wolf Pack and Warriors Gyms, where on the mats and in the cage it does not really matter who you are outside the gym. However, it would also be naïve to think that the social positioning could be completely omitted, because the lives of practitioners and coaches outside the gym shape their involvement, their aspirations, the nature of their practice and the meaning it carries for them.

In terms of the social interactions and relationships in the gym, Downey (2007) observes how the hybrid set of skills from different arts encourage mixed martial artists to share information openly. In line with his observation, in both MMA gyms during training sessions there is a great deal of dialogue between the practitioners and their coaches, and many practitioners expressed how they enjoyed this pedagogic approach in comparison to some traditional arts they had done in the past which had a more strict social hierarchy, and in which dialogue between practitioners and coaches was not as open. During training sessions in both gyms, recreational and competitive practitioners train together, and more experienced practitioners are happy to share their experiences

with others, except when, in preparation for a fight, the fighters often train together and break off from the rest of the group during classes to do some sparring. Practitioners enjoy the freedom of expression that the range of MMA skills affords them, and take pleasure in sharing their experiences openly with others and learning together. Working together results in many friendships, and working relationships between coaches and training partners are forged in the gym, despite the fact that there are also those who are more distant and do not necessarily socialise a great deal with the core groups of practitioners outside the gym environment. The backgrounds and levels of involvement of practitioners are as diverse as the ways of knowing MMA.

It is evident how the gym spaces are, in general, spaces of bodily and social interaction. However, this is also reflected in the layout of those spaces in both gyms that are particularly designed as social spaces – mainly the reception areas and the changing rooms. In the reception areas, both gyms have sofas and seats where practitioners can sit around and chat before and after the sessions. The Warriors Gym has a small bookshelf on the wall opposite the reception desk with martial arts books, videos and magazines that practitioners can browse. Practitioners often hang around before and after training sessions and chat about training, life outside the gym, and other social and leisure activities. Here, they greet each other and say goodbye, shaking hands after sessions are finished. Then there are the changing areas where practitioners transition from their everyday attire into the training kit, usually consisting of shorts and a t-shirt or a rash guard (Field notes, October 2010). Practitioners chat with each other whilst getting changed and ready for training. Both of the gyms have male and female changing areas because, although the spaces are male dominated, they are not exclusively male, and the Thai boxing and Kickboxing sessions have regular female practitioners. In the Wolf Pack Gym, the men's changing area next to reception is relatively small, and accommodates a metal rack for equipment and clothing. Due to the limited space, getting changed sometimes spills over to the reception area, and the lads often walk around with their shirts off as they chat about training. In the Warriors Gym, the changing rooms are slightly bigger and located at the back of the gym. In this case the changing area is more enclosed, but as the changing rooms are right next to each other and only separated by a plasterboard divider, you can hear the chatter from one changing space to the other (Field notes, November 2010). I now move to the final part of this chapter, which explores what is involved in doing MMA in the Wolf Pack and Warriors Gyms, and how the spaces of the gym are designed to accommodate the different aspects of MMA practice.

DOING MMA: PRACTICES IN THE WOLF PACK AND WARRIORS GYMS

The dimensions of MMA practice include stand up, clinch & takedown and ground. Furthermore, there are a number of modes of MMA practice that the mixed martial artists and the coaches engage in the gym, which include technical training, sparring/free rolling and conditioning practices. This section provides an important frame of reference for the later analytical chapters, which explore in depth the processes involved in the development of MMA knowledge.

The hybrid nature of MMA, and the way it combines skills and knowledges from a variety of combat sports, has resulted in a body of knowledge with multiple dimensions of practice. The instructional and popular literature and, most importantly, the coaches and practitioners in the field settings divide MMA practice into three dimensions: 1) the stand up, 2) the clinch & takedown, and 3) the ground. Striking, grappling and submissions are practiced across these dimensions of MMA. During fieldwork, the practitioners referred to these three dimensions in discussions of their experiences and practices (Field notes, December 2010). Moreover, particular sessions in the gym are dedicated to these dimensions, and these dimensions structure the practices of teaching and learning MMA. Despite these distinctions in both fieldwork settings, MMA training and coaching involves both separating these elements and putting them back together. This approach has a pragmatic foundation because the wider range of skills and knowledge within MMA means that it is not practical to learn or teach all of them at once during each training session (Field notes, February 2011).

STAND UP, CLINCHING, TAKEDOWN AND THE GROUND

The first of these dimensions are the stand up practices, which are centered around those skills, techniques and strategies of MMA where both practitioners remain on their feet in a more or less upright position. Standing up, the practitioners can move forwards, backwards, in a circular fashion and sideways in relation their training partner or opponent. This dimension draws on the knowledge and skills of some other martial arts and combat sports, including, but not limited to, western boxing, thai boxing (muay thai), kick boxing, taekwondo and karate (Mayeda and Ching, 2008; Jackson and

Crigger, 2009; Penn *et al.*, 2010). In MMA, stand up practitioners are taught to legitimately use their body to avoid, defend and perform a variety of strikes to the targets that are the head, body and limbs of the training partner. These strikes include punches, elbows, kicks and knees (http://www.ufc.com/discover/sport/rules-and-regulations). Moreover, the practitioners can move to position themselves in relation to their training partner – closer, further and at different angles in order to attack, defend or counter attack on the mat and within the space of the cage. The contrast between MMA and the root arts and sports it draws on lies in the fact that these roots sports, boxing, karate and thai boxing among others, focus purely on stand up with limited dimensions of striking, ²⁵ i.e. only punches are allowed (Wacquant, 2004). Both the Wolf Pack Gym and the Warriors Gym offer sessions focusing on stand up, and particular MMA sessions also work on different aspects of stand-up such as striking and footwork.

Both gyms have training areas suitable for the stand-up aspects of MMA; often the thickly matted areas for ground training can be used for stand up work but not vice versa, as the mats or flooring in the stand up area are not suitable for accommodating full MMA or ground training. The Wolf Pack and Warriors Gyms both have dedicated floor space available for stand-up and the kickboxing and Thai boxing training sessions. In the Wolf Pack Gym, the second half of the main training area is predominantly used for stand up, but during busy classes the whole room is used. The mats pulled across the area for ground training are not appropriate for stand up because the vinyl surface can get quite slippery and is not safe for practicing kicking and other stand up techniques. Along the wall with the windows are two metal brackets holding two punch and kick bags (Fieldnotes, September 2010). In the Warriors Gym, the stand up area is the heart of the gym, taking up about another third of the total gym space, and the floor surface is covered by thinner red jigsaw mats (Field notes, September 2010). They fit together seamlessly, keeping the mats in place with no spaces left in between them on which you could trip over or in which you could jam your toe. The area is separated from the rest of the gym on both sides by the supporting pillars, which operate as natural dividers of the gym areas. The pillars support brackets from which long leather kick and punch bags are hung for training, and are used for drills and rehearsal of strikes. Practices in

_

²⁵ In these arts and sports, the respective practical knowledge does not include skills and techniques beyond the stand up, and in competition techniques and movement outside the stand up dimension are illegal. For example, in boxing the referee will stop the contest if a contestant falls onto the ground, or if the two contestants clinch, and will then order them to continue from standing position. Secondly, in boxing only punches to head and body are allowed, in kick boxing only punches and kicks above the waist are legal, whereas in Thai boxing punches, elbows, knees and kicks are allowed.

both the ground and stand up training areas take place barefoot, and shoes are not allowed in these areas to prevent dirt and bacteria from outdoor shoes getting on to the skin of the practitioners, which could potentially cause infection.²⁶

Another aspect of MMA practice is the clinching and takedowns, practices which are involved in the transition between the stand up and the ground positions central to MMA, and where practice is allowed to continue from stand up, into the clinch, onto the ground and back again. The clinch is centered on the two practitioners, closely entangled, grappling to control their opponent in order to gain a dominant position so that they can then deliver strikes to their head and body or take them down onto the ground (Downey, 2007a; Mayeda and Ching, 2008). In MMA, clinching often occurs when one or both practitioners are near or against the cage that each is trying to use to their advantage, as that is the premise from which these skills are taught, learnt and rehearsed. This is because when one practitioner is pressed against the cage, he or she is unable to use escapes and the cage can be used strategically by their opponent to keep them trapped, and to carry out strikes and takedowns. The practices of takedown also incorporate the moves designed as a defense to takedowns, which center around a range of techniques referred to as "sprawls", which occurs when one practitioner attempts a takedown by dropping their level and charging forward to grab one or both of the legs of their training partner. They can also use a body hold, a throw or a trip off or against the cage for the same purpose, and practitioners often refer to these strikes used while still in the clinch as "dirty boxing". 27 In competition, takedowns accrue points as they demonstrate control over the opponent (http://www.ufc.com/discover/sport/rules-andregulations). This aspect of MMA practice adapts skills from a number of existing bodies of knowledge – such as Greco-Roman wrestling, freestyle wrestling, shoot fighting, ²⁸ Japanese Jiu Jitsu, Judo and Catch-wrestling – and adapts them for MMA (Mayeda and Ching, 2008).²⁹ In the Wolf Pack Gym there is a specific weekly session in which practitioners can focus on clinching and takedowns, whereas in the other gym

-

²⁶ This is a risk worth considering, as in MMA the practitioners are in close contact with one another and skin is in close contact with the mats, so bacteria could transfer off the mats as well as between practitioners.

²⁷ The term "dirty boxing" refers to the fact that striking from the clinch is not allowed in boxing, hence the use of the word "dirty", as in "not pure" boxing.

²⁸ A takedown can also be called a shoot, and shoot fighting is focused predominantly on takedowns. Please see the Glossary at the beginning of this thesis for a full definition.

²⁹ In this case the root bodies of knowledge differ from MMA in that they tend to focus solely on clinching and takedown with some ground work. The main distinction is that they do not allow any strikes or submission holds, but rather the aim is for practitioners to gain positional control and to accrue points through takedowns, throws etc. In MMA, however, both are allowed, and the aim is defeating the opponent.

setting this aspect of the sport is used to structure the MMA sessions, with a part or the whole of the session spent working on it (Snowden, 2008b).

Ground training is another constituent of the hybrid sport of MMA, and is combined with stand up, clinching and takedown practices. On the ground, MMA practice predominantly involves movement across the horizontal plane, with both practitioners and coaches learning and rehearsing movements from different positions. These include escapes, transitions, control positions and, of course, submissions striking.³⁰(Downey, 2007a; Mayeda and Ching, 2008). Movement flows back and forth in a dynamic fashion, occasionally reaching an impasse. The practitioner, who is on their back on the ground in what the initiated call the bottom position, can strike and attempt submissions, or alternatively he or she may go for escapes. This can enable the practitioner to move to a more advantageous and dominant position in relation to his or her training partner, who can equally strike, try to submit, or both. Consequently the coaches teach practitioners to grapple for position, to respond and feel the movement of the training partner with whom they are in close contact on the ground. Ground fighting knowledge utilises a range of skills from other martial arts and combat sports, most notably from Brazilian Jiu Jitsu, Judo and different forms of wrestling (Mayeda and Ching, 2008).

Both the Wolf Pack and Warriors Gyms have a floor space covered by soft mats that are suitable for training the ground fighting and takedown/clinch aspects of MMA, or full MMA training. The softer surface is required to prevent too much impact with the concrete floors underneath during takedowns or ground grappling, as without this these activities would easily result in injury. In the Wolf Pack Gym, this area occupies half of the main training area, which is a large hall-like space accessed via a narrow corridor that connects it to the reception area and rest of the gym. The space divided in half by two concrete pillars, and the area in question is covered by soft canvas suspended across vinyl covered soft mats to form a specialised training area fit for purpose of practitioners taking each other down and grappling on the mats (Field notes, September 2010). The second half of the room can also be adapted to suit ground training practice by laying out vinyl covered rectangular mats, and this increases the space available for MMA classes and ground fighting training for MMA. The Warriors Gym has a specific

_

³⁰ Within the unified rules of MMA enforced in the USA by the California State Athletic Commission, and which frame majority of practices around the world, punches and elbows to the head and body and knees to the body are legal techniques on the ground. However, kneeing or kicking the head of an opponent on the ground is not a part of the legitimate arsenal of techniques.

ground training area situated at the far corner or the gym, taking up about a quarter of the whole gym space. This area is separated from the rest of the gym by a chain link, vinyl covered fence similar to that which forms the cage space for MMA. This is to allow simulation of ground, stand up and clinch/takedown practices against the cage during the MMA classes and group sessions, as it is not practical to try and fit a whole class inside the smaller versions of the full MMA cage that the gym also has (Field notes, October 2010). The floor space is covered by thick yellow jigsaw mats, which are tightly linked together, also to stop the mats from moving around underneath the practitioners' feet.

In addition to the above, there is the space of the cage, which is an octagonal area surrounded by a metal mesh-linked fence, and is the specific space designed for MMA. Both gyms have a smaller version of the full sized competitive cage in the gym space. The cage is not usually used for general teaching in classes, as there are usually too many people to fit inside the cage and train. Rather, it is used for one-to-one sessions and MMA sparring practices.³¹ The cage has had practical consequences for MMA knowledge as it has evolved, and the specific techniques used when practitioners end up against the cage, and the ways in which the cage can be used restrict the movement of an opponent to their advantage for strikes, clinching and takedowns, have developed. However, grabbing hold of the cage to hang onto it to prevent a takedown, for example, is not allowed within the rules of MMA. Consequently, the cage shapes the practices that take place in both the fieldwork gyms, and sessions sometimes focus specifically on teaching and rehearsing these kinds of techniques (Field notes, April, 2011). The Wolf Pack Gym has one small room by the reception in which the cage is located, and in the Warriors Gym the cage is next to the stand-up training area between the two boxing rings used for stand up and Thai boxing.

Both gym spaces are also used for conditioning training. As noted previously, conditioning is a central part of the contemporary sporting practices of MMA, as it has developed into a fast moving combat sports contest. While both gyms organise specific conditioning sessions, which are discussed above, the conditioning setup in the two gyms is slightly different due to the size of the space the gyms have at their disposal. In the Wolf Pack Gym, the conditioning training is done in the main training area of the

_

³¹ The specific space of the cage was designed as MMA evolved as there was a need to safely contain the participants in the area during competition. Boxing rings were not suitable for this because clinching and takedowns could not be done safely within the ropes surrounding the ring, and there was a risk participants would fall out and get injured, and thus the cage emerged.

gym, which is adapted using a variety of fitness training equipment stored in the corner of the room, including a fitness bike, weight plates, kettle bells, barbells and medicine balls. The Warriors Gym has a specific fitness conditioning area that takes up about another third of the total gym space. There is specialist weight lifting equipment, squat racks and benches, as well as numerous barbells and weight plates. In addition to these are two rowing machines, wooden boxes for box jumps, medicine balls and skipping ropes. Both gyms use metal bars set across the ceilings for pull-ups that are often part of the conditioning sessions.

This spatial complexity and the different physical dimensions of the gyms are not something abstract or imposed by myself for analysis. Rather they structure MMA practice and the gym spaces in a number of ways, as I have illustrated in the paragraphs above. Most importantly for this study, these dimensions of practice are what the practitioners and coaches in the Wolf Pack and Warriors Gym used themselves to describe the different aspects of their training and coaching practices. Consequently, these dimensions also structure the coaching, learning and competitive practices in a very explicit way in both gyms. They shape the way coaches structure their training and the way pedagogy and practitioners' learning is structured. In summary, this complexity is inherent in the hybrid nature of this combat sport: it evidently stems from the history and evolution of MMA and the wide range of arts and sports on which it draws. However, I would like to underscore that the bodily knowledge of MMA is more than the sum of its parts because it involves all three dimensions – including strikes and finishing moves across the dimensions – and has evolved into a full contact combat sport in its own right. Furthermore, the skills of transitioning effectively between these dimensions are also an important part of the training sessions and coaching in both field settings. The hybrid nature of the sport is reflected in the practices that constitute the sport on the ground, in the local gyms.

Across these different aspects of MMA practice, practitioners, coaches and fighters also refer to three closely connected modes of practice that are defined by their purpose within MMA. These modes of practice are: a) technical training, b) sparring/free rolling, and c) conditioning. These modes are all connected to the processes of teaching, learning and applying MMA. A majority of the daily training practices in the two field settings during classes, small group and one-to-one sessions either focus on or involve aspects of technical training. Technical training is about teaching and learning specific skills and techniques or drills which teach practitioners patterns of movement or a part

of a technique, and is a central component in the processes of acquiring and passing on MMA knowledge.³² During training sessions, this involves breaking down techniques across and within the three dimensions discussed in the previous section into workable sections, drills or movement sequences. Technical training can be done individually, focusing on footwork and drilling of striking techniques on punch bags/pads, or rehearsing fundamental movements such as forward rolls and break falls. Predominantly, however, the practice involves training in pairs, in one-to-one drills in which each practitioner takes it in turn to practice the moves in question. Despite being an individual sport, the learning and coaching of MMA is a collective social practice.³³ A key feature of technical training is control. Technical training is always done with a co-operating training partner who gives sufficient resistance to make learning realistic,³⁴ but not so much as to prevent the other person from learning. This type of training is intentional and purpose driven, because drills and sequences are set up in a particular way to facilitate learning. This mode of training is the foundation of knowledge and skill development, and will be explored in depth in the data chapters.

Technical training is the foundation for MMA knowledge in settings in which skills are broken down, and in which movements can be slowed down and controlled. MMA is a dynamic sport, and an important part of the practical knowledge of MMA is learning to apply these skills in motion. Sparring and free rolling are about applying the skills learnt during technical training in a dynamic fashion with a resisting training partner. I use the terms "sparring" and "free rolling" interchangeably here, as these were the terms which practitioners and coaches used during fieldwork when referring to these practices that often took a place at the end of the training sessions, again across the different MMA dimensions, or put together in fight preparation and sparring prior to a contest. However, sparring is fundamentally about learning to apply skills in action that is central to ways of knowing skill MMA, as I will demonstrate in Chapter 5. This was a point reiterated by coaches, practitioners and fighters throughout the twelve-month fieldwork period. As in technical training, control also plays a role in sparring, and it is intentionally used to facilitate the learning of a particular set of skills. For example, sparring can be set within one or more of the dimensions of MMA to suit a specific learning objective, or for the fighters to work on a particular aspect of the sport. Other

-

³² These processes will be the focus of a detailed analysis and conceptualisation emerging from the everyday practices of MMA, which I explore in chapters six to eight.

³³ Wacquant (2004) observes a similar feature of practice in the context of boxing.

³⁴ Because no one is going to allow you to complete a technique with no resistance, as MMA knowledge is based on combat between two practitioners.

ways to change and control the parameters of sparring include using more protective equipment, restricting the use of certain techniques, or restricting sparring to a specific scenario. For example, Steven, who was preparing for a fight, was doing some sparring from the bottom position on the ground, and once he succeeded in standing up the sparring started again, from the bottom position. All practitioners engage in varying amounts of sparring, but the proportion of their training devoted to it depends on the level of their involvement – for example, fighters often do more sparring compared to the purely recreational practitioners. Sparring is an essential part of competitive practitioners' preparation for a fight, as it allows them to rehearse MMA in action. In an MMA contest, practitioners test their ability to apply the hybrid combination of skills against a fully resisting opponent inside a cage during a contest supervised by a referee (Mayeda and Ching, 2008). Overall, however, time spent in the cage in competition is the tip of the iceberg in comparison to the time spent learning, rehearsing and honing the skills and knowledge in the gym and in preparation for a contest.

As MMA has evolved into a more sport-like format, physical conditioning has become an increasingly significant part of MMA practice and another facet of MMA knowledge (Downey, 2007a). Conditioning practices are of heightened importance to the fighters who do not just test their skills but their cardiovascular and muscular fitness against their opponent, and this is compounded by the strain of being hit with strikes, grappling and takedowns which in themselves are strenuous. However, practitioners and coaches undertake conditioning on a regular basis across the board, with varying frequency. Fighters do conditioning anywhere between five to seven times a week, whereas for recreational practitioners this varies, with some doing conditioning training as frequently as the fighters, while others only do one or two sessions a week (Field notes, March 2011 and practitioner interviews). Both gyms organise specific conditioning classes between two to five times per week. Conditioning consists of sport-specific sessions that involved fitness conditioning in the form of movements that mimic or attempt to replicate movements, fundamental to MMA, and performing them in a repetitive fashion over a set period of time. For example, the weekly conditioning sessions for MMA take the form of circuit training consisting of ten to twelve exercise stations, moving from one station to the next every two minutes. The exercises are often adapted and include simulated takedowns, strikes using rubber bands, and ground and pound drills on a punch bag placed on the floor to mention a few. The information about sport-specific conditioning is shared between coaches and practitioners and they also

frequently study MMA magazines and websites for ideas. The Warriors Gym also has a specific fitness conditioning facility within the premises to accommodate the classes, whereas in the other gym conditioning takes place within the general training area. General conditioning activities, such as running, gym training, swimming or cycling, are done individually, although some of the regular practitioners go for a run together outside the organised and individual sessions. Having examined the different aspects of the immediate research context, I will now draw together the some of the key threads and their implications for the subsequent chapters and the study as a whole.

CONCLUSIONS

The purpose of this chapter was to introduce the reader to the Wolf Pack and the Warriors Gyms that constitute the setting for this ethnographic study of MMA. These two gyms were the immediate research context for the study: the local MMA gym is the focal point for the practitioners whose experiences and practices are in focus here. I have explored the background of these two gyms and the context in which they are situated, in the North-East of England. Subsequently I have also shed light on the gym as a social setting: the webs relationships and hierarchies as well as the key characters in each gym, the coaches, fighters and recreational practitioners, which are all aspects of the context, equally central to understanding ways of knowing MMA in ways that the following data chapters will demonstrate. Finally I have examined the ways MMA is practiced in the Wolf Pack and Warriors Gym and the way in which the gym spaces are designed to accommodate the different aspects of MMA practice.

In Chapter 2 I have discussed how understanding the pathways to knowing through the phenomenologically guided approach I utilise in this study, it is necessary to appreciate that these processes are always inextricably bound up with the world and people around us. Thus this chapter provides an important underpinning for the three analytical data chapters which follow. Furthermore, it is important to take away from the introduction to MMA presented in chapter 1 and the local MMA context examined here, that these two contexts do not exist in isolation. The ways in which phenomenological perspective of Merleau-Ponty (1962; 1964) appreciates this situatedness, combined with the ethnographic method discussed in Chapter 4, can facilitate understanding the dynamics through which the wider and local context interconnect. The way, in which this interconnectedness is generative of the ways of knowing MMA in the local gyms are

drawn out throughout the analysis in the following chapters, which I now turn my attention to.

CHAPTER 5 - WAYS OF KNOWING SKILL IN MMA: ENSKILLMENT AND PEDAGOGY IN ACTION

Introduction

Pointing to the beginners training on the mats struggling to co-ordinate just one basic movement skill at a time, Matthew, one of the coaches, told me, "Learning it is not a pot noodle, it takes time and a lot of effort" (Field notes, November 2010). The aim in this chapter is to explore how the MMA practitioners and coaches develop their skills knowledge, or rather 'ways of knowing', in practice and what constitutes skill in MMA. As I will show, the analysis reveals a complex set of interconnected processes. These processes involve both the practitioners and coaches engaged in embodied discovery and experimentation that develops bodily and sensory skills, as well the ability to understand and apply these skills in action. The skills knowledge that emerges from the analysis is complex and dynamic. Both, learning and coaching MMA demand constant differentiation due to the ever changing circumstance of practice and the movements of the training partner, and the evolving, hybrid combinations of skilled movements and techniques that characterises MMA. MMA skill is grounded in embodied practice, lived through and situated in an active relationship with the surrounding environment of the MMA gym, crafted together with other practitioners and coaches.

In this chapter I attend to a gap in the literature on sport and physical culture, where limited attention has been paid to the practical ways in which sporting activity is accomplished, pointed to by Allen-Collinson (2008) and the limited extent to which the potential of phenomenology has been realised within the sociology of sporting embodiment. I argue that attention to the minutiae of practical, experiential and corporeally grounded sporting knowledge is crucial to understanding the dynamics that are constitutive to the production of 'ways of knowing' MMA. The hybrid, evolving nature of this contemporary sport allows me to draw attention to the process and the ongoing craft involved in development of embodied ways of knowing. It allows me to analytically highlight how there is no fixed end point of proficiency and how this is important for understanding experientially grounded ways of knowing. Furthermore, I argue that a phenomenologically-oriented, interdisciplinary framework, which draws

from an ecological conceptualisation of skill elaborated by Ingold (2000), introduced in Chapter 2, is particularly useful in analytically unpacking these processes.

Within this chapter I discuss two closely entangled but distinct processes that emerged from my analysis as being constitutive for the development of ways of knowing skill in MMA: enskillment and body pedagogies. Firstly, I explore the diversity of the bodily and sensory processes of enskillment and pedagogy in practice, my goal is to tease out the dynamic, evolving nature of these processes. Secondly, I describe and analyse practices of coaching MMA, and demonstrate how pedagogy is a distinct skill and how it is developed. Finally, I examine the social logic and inter-corporeality that are central to the pathways and craft of knowing MMA skill. Throughout I draw from, and make connections to the existing literature and empirical studies on skill, pedagogy and ways of knowing to underscore the insights of this study and its contribution.

EMBODIED ENSKILLMENT: CRAFTING THE MOVEMENT SKILLS AND CAPACITIES FOR MMA

'Like I said, it's never-ending learning with MMA. You would never be able to live long enough to learn everything – I never feel like I know everything and I'm open to learn new stuff and the knowledge evolves that way' (Jake: Interview transcript, 15th June 2011)

Jake's comment about the nature of the mastery of MMA skills is parallel to those of MMA coaches and practitioners across the board in both Warriors and Wolf Pack Gyms. It draws attention to the evolving, unfinished nature of learning and pedagogies of MMA, with no fixed end point to 'knowing' skill. The evolving, hybrid nature of MMA is helpful in highlighting the continuous craft that is central to pathways of knowing within and beyond this particular sporting context. MMA combines elements of a variety of existing combat sports and martial arts into hybrid entity that is more than the sum of its parts. There is no one universally accepted and fixed set of skills. There is, however, a general frame of reference that guides MMA practitioners, which includes strikes, grappling, holds, and submission techniques that can be explored in virtually infinite combinations and variations in order to outmaneuver an opponent. It is the hybrid nature of this contemporary combat sport that highlights the practical consequences for the constitution and practical development of ways of knowing skill in MMA. In a study of embodied practice of Jazz improvisation, Wilf has captured the

essence of these practical consequences, also relevant to MMA skill, whereby, "the embodied and practical mastery mandates a constant differentiation" (2010, p. 564).

The hybrid and evolving nature of knowing, with reference to the practices and practitioners' experiences, allows me to analytically highlight that the moment of achieving proficiency is much more elusive than it may appear at first glance. The MMA practitioners and coaches who were proficient in utilising their skills in action have not stopped engaging in learning and development, and there is no finite end point to this process. Furthermore, the practitioners' understanding of proficiency was also shaped by the level and aims of their involvement, e.g. whether they are competitively or recreationally oriented. The central role of practice and experience in the constitution of MMA skill, to practitioners and coaches, was so obvious as to be banal to the practitioners themselves, but nonetheless it is analytically significant (Field notes, March 2011). The phenomenologically-informed appreciation of experience and practice highlights the active engagement of the learner and the instrumental role of experience, practice and active experimentation within the enskillment process. During conversations with practitioners and coaches, this point was articulated in ways interview quotes below illustrate:

'I think the greatest component is the actual doing of it. There's only so much you can be told, or can read about or whatever. It isn't until I explore it for myself in an actual circumstance that it is supposed to be applied that, it's sort of the proof of the pudding as if it were, it comes in that moment.' (Harry: Interview transcript, p.11/10th November 2010)

'I think on the ground. I mean I always learn more when I do things. Like, you know some people learn and they rather just watch, I learn when I do [...]. I'm a hands-on person, I listen to the instructions and that but in the MMA I think it's best if you practice constantly so that it gets into your muscle memory. You're like learning and that's when it gets into your head and you don't forget it.' (Michael, Interview transcript, p.8/20th May 2011)

Novices and more experienced practitioners have developed a shared understanding of skill via corporeal engagement in a range of training practices that I have introduced in Chapter 4. Here I explore the data that illustrates how the practical development of skill through bodily apprenticeship is not simply a case of learning how to perform a set of body techniques. The picture that emerges from the field data and practitioners' accounts is more complex and one that problematises the development of practical skill,

merely as an assimilation of body techniques through mimicking and repetition. I now consider how learning skill through practice was achieved, from the perspective of the apprentice. I also illustrate how enskillment shapes the embodied, living subjects in the process.

The training session today involves some work on striking skills. The coach divides the group into two, roughly based on their experience in MMA. More experienced practitioners, and me, were on one side of the gym and the novices and two complete beginners on the other. Standing up, Matthew had us all do a warm up of shadowboxing. The same movement techniques were practiced on both sides of the room, but at the same time we were trying to achieve aspects of skill. Once the session starts, the practice goes on simultaneously on both sides of the gym. Matthew keeps moving back and forth between the two areas giving instructions, giving some corrective feedback appropriate to the learners and their skill-level. He gets the more experienced practitioners started first whilst the other half gets some kick shields to work on some round kicks and knee strikes, individually in isolation. Matthew begins by demonstrating a round kick in action and then slows it down, explaining first how to stand in a stance one foot forward one back, knees slightly bent, then a 45 degree step with the lead leg, slightly up on the toes, then spin as you bring the kick around in an arc, landing the kick on the shield. The two complete beginners are struggling with the stance itself as well as co-coordinating their bodies to perform the elements of the kick. Movement is quite tentative and each time they rehearse is different. There is a lot of focus on the individual parts that make up a skilled round kick. Focusing on each of the elements at a time, they gradually begin to grasp the rough movement pattern, gradually familiarising the body with this new skilled task. Matthew works closely with the pair, demonstrating the movement again and continuing to give instructions as they try it out. (Field notes, September 2010)

For the complete MMA beginner, the main focus of the learning process is on discovering how to co-ordinate their body to simply perform a particular skilled movement, to experience it, and to develop new potential for skilled actions. During the session Matthew comments on this fundamental ground for becoming a skilled MMA practitioner: "What needs to be learnt about a skill is a sort of a rough outline at first, so that you experience with your body how you can move in a way that's required" (Field notes, September, 2010). The attention at this point is on the particular parts of the movement skill as an end in itself. This was the case for the beginners, Kyle and Tim, from the vignette above, who initially struggled to do round kick as a whole, singular movement. The smallest detailed components and body movements are brought into

focus, and attention is directed to how to position and move certain parts of the body and experiment in performing the movement. Noel one of the novice fighters told me about this process of discovery during an interview:

'When you stop in a position, I like to see it and try things, and there's a couple of times that I've discovered something that's good, that works for me, and then I try and put that into practice in a way that somebody else might not'. (Noel: Interview transcript p. 16/18th February, 2011)

Underpinning the practitioners ability to learn skills, in this case a round kick, is the basic intentionality that Merleau-Ponty (1962) refers to as motility: a crucial prerequisite for attentive engagement in the task at hand. Using the concept of motility in
conjunction with the phenomenological understanding of practical knowledge allows
me to investigate the processes through which skills are accomplished in practice. A key
thread of the argument developed from the analysis is to promote a holistic appreciation
of skill. This problematises the analytical focus on body technique as the guiding
concept, which characterises many of the accounts of sporting embodiment. As the
above vignette illustrates, the novices often struggle with co-coordinating their body to
produce a given movement. It is not purely a case of smooth, straightforward
observation followed by a mimicking and internalisation of body techniques. Rather, it
is much messier and less straightforward in practice, involving practical
experimentation and discovery, not just mechanical mimicking of the movement.

During the training sessions the process of learning a skill is not linear. It often involves steps forward, back and forward again. When the mixed martial artists in the Wolf Pack and Warriors Gym learn and practice, they sometimes manage to do some aspects more successfully than others, and when they finally succeed, they may struggle with something else. Carl, who has been training in MMA for less than two months, expresses his frustration with an escape from the bottom guard position on the ground during a training session:

'Arrgh! Just when I manage to scoot the hip out, then just can't get the transition from there to my knees and then the next time it's something else again but then bit by bit you can start to get there and your body gets more used to it and then you are more able to do it' (Field notes, May 2011)

This complex combination and evolving nature of MMA skills allows me to draw analytical attention to and highlight how the process of developing a skill is about more

than learning how to perform an individual 'technique'. Developing the quality and bodily expression of the movement skill or technique as a whole is an equally instrumental constituent in the process of achieving skilled action in a particular aspect of skilled MMA practice. The practices of the more experienced practitioners during the same training session in the Wolf Pack Gym illustrate the ongoing, never-ending craft that focuses on developing the quality of the skills learnt:

Matthew also shows how the training partner needs to hold the shield safely, firm with their legs in a strong position under the shield. I watch as they get started, because the coach can only demonstrate the drill so many times. What they need to do is to begin discovering it for themselves. Ray and Louis who have been training for about 6 months are training together, Louis holding the shield whilst Ray tries to co-ordinate his movement to produce the kick, again and again. However, there is still a lot to learn and improve on. Both can perform the rough movement pattern of the round kick and instead they are working on putting the basic elements of the movement together; the footwork to enable them to perform the kick and the action of the leg co-ordinated together with the movement of the hip whilst staying balanced on the supporting leg. Through their experience and personal discovery of practicing the round kick in different ways in different situations builds to allow them to achieve the skilled movement during the drill. At times Matthew draws the lads' attention to the particular instead of the whole, but his coaching is focused on aspects that make the whole of the skilled movement more co-ordinated. (Field notes, November 2010)

Consequently, although there is almost an infinite number of different movement skills and techniques that could be learnt, the focus on learning to do something well means that merely learning more is not the main focus. Keith, for example, reiterates to us during one of the recreational group training sessions, that it is no use having learnt bits of multiple techniques and skills if you do not spend the time working on them so that you can perform them effectively in practice (Field notes, June 2011). Harry, one of the recreational practitioners, comments on the cyclical nature of the learning process that makes the improvement in skill possible:

'It's usually more of a case of a cycle on a more of a yearly basis. You'll look at something for a while and move on but then you come back around to it again and come to it later on and have few more elements perhaps embedded from it, but you might have not been able to remember everything, not being able to do all of it, but the next time you come round to it, albeit be it a lot later on, there's bits there that have remained and then yes it starts clicking in, coming together and makes sense on

much more longer term scale' (Harry: Interview transcript, p. $22/10^{th}$ November 2010)

Through the process of practical experiments with movement skills, techniques and their application over time, the intentional attention gradually submits to the performance of the skilled movement as a whole. Instead of having to focus on the each of the components of a submission technique, for example, the attention shifts to the task of putting these parts together into a smooth, functional whole. However, practitioners and coaches continuously revisit parts of movements as a part of the enskillment process. On one occasion the practitioners at the Warriors gym spent a whole session focusing on breaking down some basic moves that they were already very familiar with, and more than capable of performing, with the aim of improving their skills (Field notes, May 2011). Thus, *motility*, the basic intentionality guiding practice, constantly shifts between the particular and the whole as the movement skill gradually becomes integrated into the *body schema* of the practitioner. This refers to the development of a capacity to perform the rough movements required for a particular skill in question.

The practitioners and coaches consider the ability to apply the skills in motion during sparring, free-rolling or competition as central to the process of developing ways of knowing skills for MMA. Consequently, the practical education does not end at being able to perform a skilled movement in isolation or discovering how to express the particulars as a meaningful whole. In order to develop the bodily capacities to do this, it is important to develop an understanding of when and why to perform a particular movement skill or technique that the practitioners have spent time and effort experimenting with:

I asked about importance of timing and understanding in general from coaches Keith and Matthew during their weekly training session together. Both emphasised the importance of learning to understand why and when to put things to practice in a particular way. Matthew noted: "It has to be a part of learning; otherwise it wouldn't make sense for the learner." (Field notes, February 2011)

In practice, the individual movements learnt through practical trials are developed further through a variety of drills that are designed for learning combinations of movements and skills during training sessions. However, they do so within a set scenario designed for learning a particular combination that applies a set of skills (Field

notes, December 2010). Matthew demonstrates such a drill for the more experienced practitioners:

On the other side of the room Matthew has asked Kevin, Nick, Steven, who have competition experience, and some other regular and more experienced guys to work on a one-to-one drill instead of the basic moves that the beginners are focusing on. 'Put your shin pads and gloves on' and he demonstrates the drill with Peter. I round kick, move in lead knee to the body and plum their neck. These guys have a practical ability and understanding to do the individual skills, perhaps not perfectly every time but they can combine them together in an interactive drill, moving a little faster, strikes slightly more powerful performed with more intensity expressing the individual movements and exploring their application within the set drill instead the free flow of sparring. (Field notes, May 2011)

The beginners tend to focus a little more on the 'how' at first, but the data also illustrates how relatively early the coaches begin to introduce why particular movements are used and in what situations they are used. As Matthew noted in the previous extract from my field notes, this helps the practitioners to make sense of what they were learning. Furthermore the explanations and instructions are often more detailed and in depth when working with the more experienced practitioners, who no longer have to focus just on the very basic movement skills. The phenomenological focus on process and experience allows me to draw my analytical attention to these aspects of the enskillment process, which are instrumental in illustrating how knowing MMA skills does not come to being in isolation from their application. These drills and training practices are designed by the coaches to accommodate a variety of possible situations. This enables the practitioners to start exploring and gain experience in doing skilled movements in a variety of circumstances before attempting to learn to apply them in action in sparring and free-rolling.

The above discussion demonstrates further, the manner in which the 'how' is only the tip of the iceberg in trying to develop skill in MMA. It is particularly important to develop the ability to apply these skilled movements, techniques and body positions in action, having first worked on them in isolation through different practices and drills, where they are combined together but still in isolation for learning. The messy incorporation of movement skills to the practitioners' body schema is fundamental to developing the potential for applying these skills in action. The data also highlighted how there is no fixed end point to proficiency, although I have developed the discussion

almost in stages, it is not a one way process. It is much more cyclical, in that the more experienced practitioners and even the coaches still learn new skills and, as the cycle evolves; new and existing skills are constantly worked on through different training practices.

The discussion so far illustrates how basic movement skills for MMA are accomplished in practice. It also offers insight into the dynamic and dialectical nature of embodied practical knowing of skill, which concerns the malleability and fixity of our embodied being in the world. By this I mean the way in which our embodiment offers a unique, fixed reference point from which we experience the world, yet simultaneously our embodiment being in the world is shaped on an ongoing basis in time, space and in relation to others. Merleau-Ponty's (1962) phenomenology is a useful resource for analysing this dynamic for it acknowledges the human capacity to expand our body schemas. For the development of skill to be possible, the body has to be able to incorporate new skilled abilities and understandings through the processes of enskillment and pedagogy. Downey (2007b) and Ingold (2000) have argued that recognising the ways our physical bodies transform through development of new movement and sensory skills, as well as their application in action, is fundamental to realising the potential of these studies seeking to develop understanding of embodied forms of practical know-how. Here in this chapter demonstrating the depth and multilayeredness of the malleability of the body, where the practitioners learn the capacity to experience and express MMA skills. The skill resides in the embodied capacity to intentionally incorporate new information into the body schema and develop their potential for skilled action. This does not occur in the fashion of a data transfer, mechanically, but through development of lived ability to adapt the skills in action.

The body is the fixed point from which our being in the world is experienced and, at the same time, is required to make bodily knowing possible. Merleau-Ponty (1962) calls this our unique, embodied point of view for being in the world, because embodiment is the precondition for the existence of consciousness. On a very fundamental level, this fixed point provided by the body anchors the practitioners to the world around them. It allows them to engage in development of ways of knowing skill through the different practices in the gym and make sense of their experiences. This point also highlights the more fixed aspects of the embodiment and how, although incredibly malleable in terms of learning, it needs to be appreciated that the body is not infinitely malleable. The material limitations of embodiment have, for example, been extensively discussed by

authors in the field of disability studies and sociology of health and illness. In this chapter, as a whole, the focus is more on the ways the inherent malleability and intentionality of our bodily being in the world enables development of ways of knowing skill in MMA. However, in order to realise the full potential of the appreciation of skill beyond a mechanical imitation of a body technique, it is necessary to attend to the development of perceptual capacities through process of sensory enskillment, to which I now turn the attention of this chapter.

EDUCATING THE SENSES: SKILLED VISION, BODY FEEL AND KINAESTHETIC AWARENESS IN MOTION

The bodily education of the MMA apprentices does not only involve training of the capacities of the body to perform sequences that allow practitioners to develop skills but also prepares them for being able to apply their skills in action. Developing ways of knowing MMA skill involves a practical education of sensory perception. My fieldwork data draw attention to how sensory education is an inherent part of the process of how the embodied skills of MMA are achieved in action. Sensory education builds on the basic movement skills, understanding, and strategies that I have discussed in the previous section. In this section I discuss the data that reveals how fundamentally important the development of sensory skills is for MMA. I explore the tactile, visual and kinaesthetic aspects of sensory skill, which are the most relevant to the learning processes. I contribute to emerging empirical work, which points to the need to problematise the concept of skill acquisition as simply repetitive action.

The development of perceptive skills through sensory education is particularly important to applying MMA skills in action, which is where the discussion concluded in the preceding section. It is this active, practical and experiential engagement that forms the ground for development of practical knowledge (Harris, 2007). Furthermore, as Ingold (2000) points out, the skill of doing is grounded in "attentive perceptual involvement" to ones environment:

"Foundations of skill lie in the irreducible condition of the practitioners' embeddedness in an environment -- recognising the opportunities this relation presents and possessing the active, skilled patterns to make use of them - Through repeated practical trials and guided by observations he gradually gets the feel of things for himself, that is he learns to fine tune his own movements so as to achieve the rhythmic fluency of the accomplished practitioner." (Ingold, 2000, p. 353)

His point is echoed with a comment from one of the coaches, Matthew, during my small group training session with Keith:

'No one time is ever going to be exactly the same, so you've got to learn to feel and adjust to all the variations.' (Field notes, April 2011)

To begin with, I explore the education of the tactile sensory dimensions in MMA practice. In the following paragraphs I focus on the development of embodied, tactile sensitivity. This skill is particularly relevant to the on-the-ground skill development and the clinching dimensions of MMA practice. Keith, for example, reiterated on regular basis during our training sessions that learning to feel with the body is important when you are closely entangled in clinching and grappling on the ground (Field Notes, February 2011). Most practitioners talked about how they had to learn to feel because they were too close to get a visual of their training partners' movement, which is what you are able to do whilst standing up. Matthew, one of the coaches, mentioned this during an interview as he was talking about clinching skills:

'Learning to feel their body movement, pressure and balance is really important in these drills, because the visual sense doesn't help you very much, because you're simply too close to get many visual cues of your training partner's body movement. Sometimes trying to see what they're doing makes things harder and can slow things down.' (Matthew: Interview transcript p. $10/14^{th}$ March 2011)

At first, in order to develop tactile skills, the practitioners worked on the basics through repetition of isolated movements, combinations of movements and drills. The coaches and practitioners emphasised how learning to apply these skills in action involved the development of these tactile skills on a number of different levels. In training, the different moves allowed the practitioners to develop a tactile understanding of what the movement skill, body positioning and technique feels like. This way they could develop sensory reference points that gave them the opportunities to explore and experience different variations of the same skill (Field notes, October 2010). Coaches often assist in this process. For example, during one particular session I was struggling to grasp an escape technique as my training partner was lying on top of my upper body with his body perpendicular to mine. Matthew took the time to do the escape with me again and again, allowing me to get a feel of the move whilst he guided me verbally into position to move my body. I also learnt to identify the feeling of a shift in my training partner's

weight, which was the sensory cue for me to execute a hip escape (Field notes, May 2011). This is just one of the many examples of the ways in which skilled tactical understanding is developed in practice.

Most of the existing empirical accounts of apprenticeship and skill within physical cultural studies, such as Wacquant's (2004) and Downey's (2005b) work, primarily focus analysis on visual perceptive skills. The tactile skills revealed in my research have received much more limited attention. The only study that discusses the development of tactile skills is a study by Lewis (2000) on adventure climbing where he considers the development of a tactile understanding of the rock through the hands of the climber. Lewis notes how: "knowledge is made corporeal with the sense of touch replacing that of sight as the primary mode of gathering data" (2000, p. 71). This demonstrates the limitation of attending to vision alone when seeking to develop experiential knowledge. In MMA, tactility is developed through the whole body rather than primarily through the hands, as Lewis (2000) proposes is the case with climbing.

Tactile education through training also involved learning the correct timing and positions to apply skills in action. In training, these skills are developed through controlled sparring. Martin, the most experienced fighter from the Wolf Pack Gym, told me about his experiences of sparring and the tactile skills that he referred to as *body-feel*:

'You need to read the situation each time, respond to the movement you feel through your body and what you feel from the body of the training partner. The end result is not always the same; adaptation is one of the most important attributes.' (Field notes, September 2010)

Both recreational and competitive practitioners engaged in sparring so that the MMA skills come into being through action. Ray, one of the less experienced practitioners, also talked about the challenges of achieving body-feel in practice:

'Yes, I would say they're a little different. When you're doing it technically it's like, well, I'm learning this more, this is how you do it, this is correct, but then when it comes to free-rolling all that kind of goes out the window. [Laughs]. Because I get into a position and yes I can do the move, but then straight away the situation changes and it goes into something completely different', (Ray, Interview transcript, p. 10/18th October 2010)

By engaging in sparring on the ground and in the clinch the practitioners could develop a sensory ability of feeling through their bodies and adapt their movement and use of skills based on this tactile information. The kinds of information that guided their actions was a constantly, changing flow. This flow informs them of their body position in relation to their training partner's weight distribution, balance and pressure (Field notes, March 2011). This guided their actions as they learnt to spot an opening for putting their skills into action. Consequently, the development of embodied sensitivity is fundamentally important for the process of developing skill in MMA.

Through their engagement in training over time, the practitioners and coaches developed what Grasseni (2007), in her study of farming communities in Northern Italy, calls "skilled vision". In the case of learning and coaching MMA, this education of vision included two distinct yet closely connected levels. The first aspect of skilled vision in MMA involved learning to look in the right place, what this meant in practice is illustrated by the following:

The group taking part in the MMA class is sitting on the yellow jigsaw mats in the separate MMA training area. They are separated from the rest of the gym by an extended cage-fence, mimicking the actual wall of the cage. We have a visiting coach running the session today. He is originally from the North-East, but his fighting and coaching career has taken him down to London. Following the warm-up, he asks everyone to gather around as he shows the first drill. There is quite a mix in attendance today from beginners to a couple of the fighters in the class, some of whom I've never seen before. Once he starts demonstrating the drill some of the lads are still chatting. "Hey! Pay attention, I'm trying to show you something" the visiting coach yells. The lads go quiet instantly. As he is demonstrating the move with Jake (coach) some of us are moving around as he moves around in the clinch, using knee strikes and then into the takedown. We are moving around to see the drill from different angles so that we can see the different key reference points and movements he is explaining. It is interesting to see how some of the beginners are sitting still but eventually they pick up the cue from others. Throughout the demo he also keeps giving verbal cues allowing us to direct our attention to a particular part of the demonstration. (Field notes, April 2011)

Learning to look was developed in training through a combination of more tacit and direct methods that enabled the practitioners to develop skilled attentiveness. This, in turn, allowed them to grasp some visual reference points within which they could explore in practice and through the bodily and more tactile strategies I have discussed

above. They had to learn to look in the right place; that is, observe the aspects of coaches' demonstrations that were meaningful to learning. Coaches also played a role in this process: by using verbal and non-verbal cues they facilitate the practitioners' development of skilled vision.

The second aspect of skilled vision that emerged from the data analysis has been addressed by both Downey (2007b) and Wacquant (2004), but is analysed in much greater detail by the former author. Like the tactile skills developed during clinching and ground training, the practitioners also needed to develop a different kind of visual attentiveness. This skill concerns being able to relate a movement, distance and timing to the body of a training partner or opponent in motion. My analysis supports Downey's (2007b) observations on Capoeira: on one hand the practitioners needed to learn to watch every movement of their training partner; but, at the same time, getting too distracted with the detail could hinder the development of appreciation for the training partners' actions as a whole. This does not happen instantly but has to be developed gradually over time through engagement in practice.

Grasseni (2007) has also observed how attention is educated to become sensitive to what is meaningful and, as in the case of Harry below, adjusting movements to the movements of a training partner. Harry told me about how he had learnt to develop skilled vision through interactive pair drills where you had to constantly observe the detail as well as using peripheral vision and respond to the movements of whoever you were training with at the time (Field notes, June 2011). I observed the drill he was talking about during the recreational group session:

As Joe threw a punch, a jab directed at Harry's head followed by a cross to the body, Harry, who appeared to look nowhere in particular yet remaining attentive to Joe's movement, adjusted his distance slightly, parried the jab out the way with his rear hand and then almost simultaneously parried the body strike with his lead hand, followed by a jab at Joe's head. (Field notes, June 2011).

This one example demonstrates the kind of process that the mixed martial artists engage in practice to develop their skilled vision. These different kinds of practical visual strategies were a fundamental part of developing the capacity of putting their skills into action.

Finally I want to discuss one more constituent of the sensory skills that were central to MMA enskillment. This is kinaesthesis, from the Greek *kinein*, meaning to move, and *aisthesia*, to perceive. Lewis has defined kinaesthesis as:

'The sense that informs you of what your body is doing in space through the perception or sensation of movement in the joints, tendons and muscles' (2000, p. 69)

In the gym, the development of MMA skills in action requires the development of an embodied state of awareness of one's body in motion in space across the three different dimensions. When learning, and learning to apply, MMA skills the movement takes place and flows from standing (vertical plane), onto the floor (horizontal plane), and as the practitioners grapple on the ground they are moving around the different axes of movement (through depth) on their back, on their side, and upside down at different angles (Field notes, September 2010).

The practitioners and coaches did not use the word "kinaesthesis", but they did talk about the importance of developing mobile awareness of their body in space, in the gym or the cage, and in relation to their counterpart in training. The martial arts legend Bruce Lee utilised the term, "awareness of mobile tactical surroundings" (Lee and Uyehara, 1977) to describe this skill in the context of self-defense, but I would argue this term is particularly poignant in capturing the essence of this kinaesthetic dimension of MMA skill. Although empirical accounts that attend to the senses are emerging, the study by Allen Collinson (2010) is the only one I am aware of, to analyse spatial awareness in motion as a form of practical knowledge. This study focuses on the construction of spatial knowledge of running routes as they are produced through active negotiation of space through motion, as well as interaction with a co-runner (Allen Collinson, 2008). This emphasises the strong connection that the development of skills has to the active engagement we have with our environment (Ingold, 2000). As Wacquant (2004) has noted, without regular sparring practice, and the teaching of how the skills are developed in training, the rest of the practice would make little sense. In MMA, the mix of skills only comes into being through action. The ways in which the awareness of mobile tactical surroundings (Lee and Uyehara, 1977) was developed in practice and its role in knowing MMA skill in action is the focus of the following paragraphs.

On the mats in the gym, kinaesthetic awareness is developed from the start. Skills practiced step-by-step in isolation, learning to apply these skills in action on the ground,

in the clinch and standing up have already been discussed in the first part of this chapter. One of the ways practitioners can gradually begin to develop corporeal kinaesthetic awareness of their mobile tactical surroundings is the practice of shadow boxing. During one particular training session we started with a few rounds of shadowboxing where the practitioners moved around the gym floor individually as if moving against an imaginary opponent, getting a feel of the movement and footwork patterns in combination with strikes. On this occasion, during each timed round, Luke asked us to add more strikes into the mix and combine them in ways learnt during the isolated striking drills (Field notes August 2010). It was through drills such as these that kinaesthetic awareness in motion was developed in a very basic way. The fighters, as well as beginners, used shadowboxing, but the intensity and fluidity of their movement showed their level of experience and kinaesthetic understanding.

The heart of MMA skill is the ability to utilise these skills in action in relation to an opponent or a training partner. This characteristic has also been observed in the context of other contact sports. For example, Wacquant has noted the logic of sparring in his discussion of boxing:

"Without regular practice in the ring against an opponent, the rest of the preparation would make little sense, for the peculiar mix of skills and qualities required by fighting cannot be assembled but between the ropes" (2004, p. 78).

In MMA this also includes the ability to apply skills in action against an opponent or training partner within the distinctive space of the octagonal cage. However, not all training takes place in the cage because of the limited space it provides for a full class. Nonetheless, the cage is in constant consideration when practicing techniques. At times, part of the class would go to practice in the cage and swap half way through the session, therefore both groups would get the opportunity to rehearse in the cage. Like a boxing ring, the cage restricts the space available, but, in the case of MMA, the rigid structure of the cage is even more restrictive. This gave rise to particular skilled techniques and movements that allows practitioners to learn to apply their skills against and near the cage (Field notes, October 2010).

The more experienced practitioners developed their kinaesthetic awareness in motion through sparring. However, sparring is not fighting. It is a learning experience that allows practitioners to develop their sensory capacities that underpin their skilled movements and techniques, as well as explore the application of their perceptual skills

in action. Matthew explained that sparring could be designed to allow practitioners to work on particular aspects by limiting the different skilled variables (Matthew: Interview transcript, p. 11). Therefore, learning through sparring does not always involve all the elements of MMA skill. The following vignette illustrates sparring in practice where an application of skills was rehearsed:

Martin and Jack are sparring in the cage, as part of Martin's fight preparation training, as I arrive. The room is literally steaming from the sweat expelled from the bodies of the two guys in the cage. They both have MMA sparring gloves and shin pads on to minimise the impact to avoid injury before the fight. Both are intensely focused on what they are doing: a moment's lapse could mean giving the other person the opportunity to land a strike, take them down or clinch. Jack drops his hand only momentarily and instantly a strike lands as if Martin had read his body motion, anticipating his movement. This gives Martin the opportunity to move in and push Jack against the cage. He drops down and, despite his attempts to defend himself by dropping his weight downwards; Martin successfully drops level and wraps his arms around Jack's legs. Swiftly pulling his legs underneath and pulling his body away from the cage, their bodies slam to the floor. They continue on the ground peppering strikes to the body, to the head. Martin is in the dominant across side position, laying his weight across Jack's upper body. Because of the closeness of the cage he cannot use the hip escape. Martin is controlling his head and upper body and continues to land strikes until Luke shouts, "Time! Take a rest, guys!" (Field Notes, September 2010)

The above is an example of a more intense form of sparring and is but one of many. It illustrates how the different elements of bodily and sensory skills can be brought together to develop the skills of MMA in action through discovery and active engagement in practice. It also concurs with Downey's point that,

"Skilful action depends upon the astute perception of relevant information about the body's position of relevant information and ability to compensate, that can only be learnt by varying action in training" (2005b, p. 28).

The analysis here shows that knowing skill in MMA is about much more than mindlessly and flawlessly repeating a movement demonstrated by the coach. This is because the conditions, in which skill truly comes to being, change constantly. Furthermore, as I will discuss in the final part of this chapter, ways of knowing skill in MMA are inherently intersubjective because the ability to develop body unity to apply them is inseparable from the training partners' body in motion.

But, before I move onto discuss body pedagogies, I wish to consider the implications of the first two sections of this chapter in terms of shifts in body awareness. I have already mentioned the ongoing and non-linear shifts between the particular and the whole of a skilled movement, position or technique. O'Connor's (2007) has considered this topic in her account on glassblowing, which draws from Sudnows' (1978) exploration of the shifts in awareness from the particular to the whole as a jazz practitioner learns to become more proficient. As I have discussed above, the analysis suggests that the cyclical nature of the learning process is a constant ebb and flow, depending on the focus of the practice at the time. Many of the analyses of skilled practice indicate that once the practitioner becomes proficient the body slides from awareness and becomes absent in the manner described by Leder (1990). However, Leder (1990) also notes how learning is an exceptional circumstance because it encourages acute body awareness but equally he concedes that as the individual becomes skilled the explicit awareness of movement and positioning gradually slides out of view. If it is the case, as I have argued in this chapter so far, then learning is not a unidirectional process. It involves a constant return to explicitly attending to the body, then the body is brought back into attention again and again as new adjustments and skills are learnt. I agree that in the flow of skilled action too much explicit attention to the particular can be a hindrance. However, what I hope to underscore here, is that the attention to the body, just like the shifts in focal awareness between the particular and the whole, ebbs and flows. Consequently, I argue that it is precisely this constant dialectic and shift that are productive of skilled action and my phenomenologically-informed analysis of MMA draws attention to how knowing skill is inherently open-ended. There is no finite point to proficiency in the process of developing MMA skill. As such my findings resonate with research of others, beyond sport. For example, they are in line with Wilfs' (2010) study of Jazz improvisation and Mahmood's (2005, p. 139), study of the women's piety movement in Cairo. Mahmood (2005) also discovered that the individual's awareness of rules did not recede after early stages of learning but, through monitoring and awareness, continued to also feature later on.

PEDAGOGY AS A SKILLED PROCESS: EMBODIED SKILL OF AN MMA COACH

In practice, the body pedagogies of MMA were about facilitating the practitioners' embodied discoveries of skill. The range of coaching practices varied from a group class, where up to fifteen practitioners were attending at one time, to a small group

session, with two to five practitioners working together with the coach, down to the quite intimate learning and coaching practice of one-to-one training sessions. Pedagogic practice across the sessions involved a demonstration of an isolated skilled movement or technique, a drill that allowed practitioners to gradually combine movement patterns, techniques and body positions together in a controlled circumstance. This facilitated learning as they provided a limited scenario, a focus for learning. Each session and the exact skills being taught varied and it would be impossible to describe every one. However, a demonstration of the movement by the coach, usually with one or more of the practitioners, was something that featured in all sessions. This meant that the pedagogic process is also a thoroughly embodied process and not necessarily accompanied by verbal instructions, which is poignantly illustrated by interview quote from Joe:

"It takes a while, like a, well sometimes when I'm doing free rolling, like, especially if it's with Keith, sometimes when we're free rolling and then he stops it and then I realise that this is where we've just been doing the technique that we've been doing. Then I go ahead and do it, but if he hadn't have stopped that time then I wouldn't have realised what was there; I suppose feeling it just comes with more training. (Joe: Interview transcript, p.11/25th October 2010)

Pedagogy of this kind encourages the practitioner to discover the timing of applying a move. The process of coaching involves the coaches teaching skills by engaging in practice with the participants. This allows the practitioners to develop a feel of it, guiding them to explore it for themselves through shared experience. All of the MMA coaches in the Wolf Pack and Warriors Gym are hands-on in demonstrating the skills under the watchful eyes of the practitioners who are equally central to the pedagogic practices in both gyms. Coaches Jake and Luke told me about the importance of the coaches' bodily involvement to MMA pedagogy:

"Well, yeah, I would probably say I like to be more hands-on. I like to teach something by being involved with the student that I'm teaching. I mean without a doubt, and even quite high impact training rather than just talk them through it. I mean practice that's all you can do a lot of drilling and basically teach them that way." (Jake: Interview transcript, p.6/15th June 2011)

"But, coaching, it's not like I tell them how the technique is and that's it, I don't work that way, I work with them." (Luke: Interview notes, p. 8/25th May 2011)

The coaches' involvement does not end here. Throughout the training session their body pedagogic involvement was even more hands-on. It was not a case of the coach just demonstrating a skill in practice, asking learners to imitate and then simply giving verbal guidance and prompts (Field notes, June 2011). Rather all of the five coaches continue their hands-on involvement throughout the training sessions. During one of the weekly MMA classes for example, Matthew keeps constantly moving around the matted area where training was taking place. He observes the training closely and when he sees that one pair is struggling he stops them and begins to help them by showing them the movement a few more times, one-to-one. He explains it in more detail based on his observations and helping them get through their stumbling block. Matthew asks them to feed back their experience: "do you feel that now, if you move the foot first, then the rest of the move comes together" (Field notes, April 2011). In the Warriors Gym, Jake and Tom work closely with the participants during the training sessions in a similar fashion and spend time with both the more experienced fighters as well as novices. On one occasion the whole group is struggling with a movement sequence ending in a submission. Instead of focusing on each part of the sequence, many rushed to the arm bar. So Tom calls the practice to a stop and asks everyone to watch it again, and then experiment without the submission technique (Field notes, March 2011).

The coaches' involvement is more intensive during one-to-one and small group sessions. These allow the coaches to work with the practitioners throughout the whole session, facilitating the learning skill through their pedagogic practices. The process also involves coaches pitching their instructions to reflect the experience level of the individual learner. The way coaches facilitate the pedagogy for the more experienced practitioners and the fighters to develop their application of their skills, is perfectly illustrated during a sparring session at the Wolf Pack Gym. Here, coaching can take the form of mere utterances shouted through the cage, such as: 'check that kick! Angle off, come on!' Through hours of practice, experimentation and more detailed instruction these snippets of information that may mean little to a standard observer make sense to the more experienced practitioners in action (Field notes, September 2010).

Nick, Steven, Mark and Gary, a group of friends, have come in after work for their weekly training session with Luke. They work in the cage and as the guys are getting changed. Luke reminds them that they will be working on some clinch to takedown to the ground drills, putting together some of the skills they have been working on for the past month during their sessions. They sit down on the matted surface of the cage as

Luke explains how they are going to put together some of the elements they have spent a good few sessions on, breaking down skilled movements that make up the sequence. Luke asks Nick to help him demonstrate the first drill that he wants them to work on today. It involves clinching against the cage and Luke asks Nick to clinch him against the cage with their arms tangled into the clinch, one arm over and one under. Luke gives a running commentary as Mark and Gary sit tight, closely observing his every move and listening to his instructions. "You need to use the over hook arm position and your weight to destabilise them so you can move out circular and turn to trap their body against the cage", he explains step by step. Luke continues: "then you need to drop the level, and he bends his knees, keeping his upper body upright. One hand hooks on the hip and the other behind his knee. Now, I need you to resist Nick, base and widen your stance", he instructs. "As he does it you need to switch sides and when you can feel their balance tip you need to go for the single leg takedown, as you grab the leg, make sure the other hand is pressing on their hip. Don't forget to use your head to help you leverage them away from the cage. Remember Gary?" Having finished the demo with Nick, Luke asks Gary, who is the newcomer in the group, to partner up with him. Nick and Mark are more experienced than Gary and have been training in MMA for roughly four years. Luke observes the slightly bewildered look on Gary's face and reassures him: "Don't worry, I will work with you today so we can still break it down and clarify the bits you are not sure about. Nick, Steven and Mark can you start with the sequence up to this point? After the takedown the person on the bottom position needs to try and get up. Gary, we'll start by working on the individual moves and try to connect them together". (Field Notes, April 2011)

These practical demonstrations also involve verbal instructions to help the coach draw attention to the detailed steps that constitute the whole of the skilled movement, drill or sequence. These do not just include technical terminology, but experientially-grounded guidance about body movement, position, balance and how to relate the movement to that of their training partner, attending to both practitioners working together. The coaches provided the practitioners with a sort of a running commentary that communicated the key reference points within which to explore the skills in practice. The discussions and feedback between the coaches and practitioners during training sessions are an inseparable part of the daily pedagogic encounters of both gyms. Practitioners often ask coaches questions about particular skills, movement strategies and tactics thus developing practical solutions to dilemmas they encountered in practice, together. I asked Luke about these peer discussions during one of the interviews:

"It's important for me to hear what they've got to say 'cause that tells me how they feel, how they find the techniques. Without the communication I can't know what they find works for them, what they find easy, what they find difficult and why. With the ones that are more experienced he can ask them what they want to work on and or if they find anything really problematic. Unless I communicate with the guys, I can't know what they're thinking and feeling.' (Luke, Interview notes, p. $3/27^{th}$ October 2010)

The dialogue between coaches and practitioners is an important element in the process of collaborative, embodied pedagogies of MMA in practice. It is something all the coaches in both MMA gyms engaged in day in day out. Often the more experienced practitioners discuss the benefits and disadvantages of the particular skilled movement sequences and skills they were working on and how they had found it in practice; whereas, novices often focused more on discussing the basic building blocks of skills requesting the coach to explain or demonstrate further how to go about doing them in practice. On the other hand, when facing difficulty, the dialogue facilitated the learning process in practice for novices and experienced practice alike. Often the coaches in both gyms matched the more experienced practitioners with the novices so they could help to develop their skills in practice. As Luke noted in the interview quote above, open dialogue between coaches and practitioners allows the coach to develop pedagogic approaches tailored to the individual learner, as their skill level and abilities are drawn from the experience of other practitioners.

Through the pedagogic process, the coaches develop close working relationships with the practitioners. These relationships are instrumental for the process development of practical skills of MMA. Matthew told me how this shapes his coaching approach and how he does not have a one size fits all approach. He coaches the grappling and the boxing, then the clinching in between, but he tries to always start with the individual and what they need rather than trying to teach everyone the same way (Field notes, March 2011). This collaborative nature of the pedagogy is founded upon mutual respect, dialogue and collaboration rather than authoritative, more abstract instruction and guidance that are the focus of traditional normative learning theories. Equally, as discussed in Chapter 2, the existing work on sport, physical education and pedagogy tends to be dominated by linguistic approaches, in contrast to acknowledging the embodied, lived through nature of pedagogic practice, strengthened by dialogue and relationships.

Another important insight revealed by the analysis of the coaching practices and experiences is an appreciation of coaching as a skilled activity in its own right. Appreciating coaching as a skilled practice is yet another layer of practice that needs to be considered if we are to develop a more comprehensive understanding of MMA and other practically grounded, embodied skills. Conversations and interviews with the coaches drew attention to the stories of the transition from practitioner to coach and illustrated that there was a distinction between the skills of the two: it is not quite the same thing to be a skilled practitioner and a skilled coach. Hence I argue here that coaching is a practical skill that is about developing the ability to share skills with others and communicate their bodily knowledge with the learners. During an interview, Jake tells me about his first encounter with coaching, which illustrates the difference:

'I think I got a bit of a shock myself when I very first tried to teach because you know something and how you would do it and you just automatically do it and can't understand why someone cannot. You also forget sometimes what it was like when you first started, you know what I mean? So, one aspect is as well that you always are refreshing them basics in your own mind as well when you teach. Yeah, when you're trying to show a technique, and then you realise that they haven't even got a structure or anything in the first place, so you've got to just rewind and you go right the way back to the very, very beginning'. (Jake: Interview transcript, p. 17/15th June 2011)

This comment inspired me to explore some of the distinct skills of a coach and how coaches are continuously developing such skills in practice. The MMA coaches were akin to the educators discussed by Rae Johnson (2011) in her work on the embodied knowledge of somatic educators. Although her study focuses on somatic educators in fields of practice, such as the Alexander Technique, Trager Technique and Movement Analysis (Johnson, 2011), I discovered there were many parallels to the practices of the MMA coaches. I argue the somatic educator is a useful conceptualisation of coaches in comparison to conceptualizing coaches as performance analysts, as proposed by Downey (2006a). This term reflects the nature of MMA coaching skill, a skill grounded in the coaches' embodied experience. Their pedagogic skills are embedded in and accessed through the felt experience of their bodies.

However, there is also an overlap between the coaches and the practitioners. On a basic level, the coaches needed to first be practitioners, because the skill of the MMA coach is grounded in experientially developed skills in practice, over time. This was demonstrated in the way that they had become MMA coaches: many of the coaches had

gradually developed their coaching skills as a part of their own learning curve as practitioners. They felt their coaching had resulted from their long-term involvement in martial arts and combat sports, and as MMA emerged in the 1990s. For example Jake and Luke explained how the wanted to get involved in coaching, because of the enjoyment of sharing their experiences and seeing others develop theirs:

'As a coach, it's the same really, it's about seeing the guys you coach improve, learn more, when they win fights and they're bettering themselves and you're coaching them. It's that simple'. (Luke: Interview notes, p.4/25th May 2011)

"I think it was just the fact that I enjoyed sharing what I knew with other people. And it's when you see somebody who knows nothing and then that, like, when they, you see them evolve and be able to do things and something that you've achieved that with them, that's little bit satisfactory as well". (Jake: Interview transcript, p. 14/15th June 2011)

The coaches' motivations reveal how the collaborative nature of pedagogy and the enskillment processes in the training environment allowed the more experienced practitioners to gradually start developing their skills of embodied communication and of ways of knowing MMA skill with fellow practitioners. For example, Noel explained how he began to learn some coaching skills during a training session:

"I don't mind when you get new people coming to the gym and I don't mind taking time out and sitting in and helping them with what to do and things like that. I quite enjoy that." (Noel: Interview transcript, p. 10/18th February 2011)

The data also illustrate how the more experienced practitioners further developed their own MMA skills while helping out the less experienced practitioners in training. This was an activity that was not discouraged by the coaches. This is in contrast to the learning environment in some of the more traditional martial arts, such as Karate and Judo, where a formal hierarchy established in a long tradition and lineage determines a much more authoritative form of pedagogy. In traditional martial arts there is also a clear hierarchic structure of progression from apprentice to master. Instead, the data analysis suggests that in these two MMA gyms the status of a coach is grounded in their experience and their coaching skills, perhaps because there is no specific qualification to become a coach in MMA, with the absence of national and international governing bodies. Because MMA, in its contemporary form, is a new arrival in the world of combat sports, all of the coaches had developed their coaching skills through their long-

term involvement in training as practitioners in other martial arts and combat sports. Matthew, for example, is a highly qualified instructor in a traditional Japanese art and an experienced self-protection instructor. Jake and Mike, on the other hand, had long-term involvement in Thai boxing both as fighters and coaches before they became involved in MMA coaching. The hybrid-nature of the sport fostered a pedagogic creativity where the coaches have flexibility in the way they coach.

This kind of creativity is instrumental in the process of developing MMA coaching skills. An extreme example of this is a story that Matthew shared with me from a time when MMA was just emerging and sport specific equipment, such as open-fingered gloves which enable practitioners to grapple, strike and apply submission holds, did not yet exist. When they first started training in MMA, they only had boxing gloves, and when they ended up on the floor, they had to throw their boxing gloves off and continue with their bare hands (Field Notes, October 2010). The process of coaching involves the capacity to experiment and develop ways of communicating the hybrid combination skills and attributes that make up ways of knowing MMA.

Becoming a coach does not mean that an end point to learning has been achieved. After all, coaches are also practitioners, although ones with extensive experience. All of the coaches emphasise strongly how they constantly continued to work on their practice as well as their coaching skills. Michael and Luke both explained to me how coaching skills also involve learning from the participants they worked with; learning from the ways they found instruction and guidance helpful and the times they did not, a process of trial and error. The coaches also develop their skills through collaboration with other coaches by training together, and sharing coaching ideas and practices. During an interview, Jake told me about how he and Mike work together and develop their coaching skills:

"So one of us might come up with an idea or a technique and show it to the fellow coach and they might say, 'yeah it's good but this little bit might not be quite right' and they add something and so on and so on, and that's how we perfect things. So that's the way we always learn things: through a learning curve. Like in Thai boxing, that's how the MMA side of things has evolved by transforming Thai boxing into the MMA style for the stand up, but obviously we've got a jiu-jitsu coach here as well and so you get that side of it as well" (Jake: Interview Transcript, p.6/15th June 2011)

Another route for developing coaching skills is participation in seminars or training with elite MMA fighters and top coaches. All of the coaches had travelled, some to the US, Brazil and Thailand, to develop their skills as practitioners and coaches. Luke, for example, tells me how he keeps working on his ground coaching skills by travelling to train with a top Jiu-Jitsu practitioner. His training and coaching background is in boxing and he wanted to develop his coaching skills for ground fighting to the same level, because both are required for MMA (Field notes, October 2010). Consequently, similar to any practitioners' development of skills, the coaches' skill development was an ongoing, corporeal and experientially-grounded process.

Although the foundation and pre-condition for the development of coaching skills is through practice, and in collaboration with other coaches and practitioners, their continued experiential investment is accompanied by other subsidiary learning methods. I spoke to Keith, the coach of the recreational group, about the additional ways he constantly worked on his coaching skills:

We sit in the gym having a cup of coffee following a recreational group training session. In addition to the ways of developing coaching skills, Keith tells me about the way he systematically researches his own experience in training as a coach, as well as the wealth of technical manuals, videos, and books on training methods – anything that he can get his hands on. On the evenings that he is not training and coaching with the recreational group, and regularly after the sessions, he spends hours studying instructional videos and fight videos of competition events. He continues to explain how these are ways to keep up to date with how the sport and the skill sets for MMA are evolving, which are easier now with the Internet. Through the Internet, you can access so many resources and constantly keep researching new approaches and discuss them with other coaches, Matthew in particular whom he has known, trained with and coached with for over twenty years. But he also points out how the materials only make sense for him as a coach in relation to his experientially developed coaching skills. "There really isn't a point when you could say that you've got no more to learn about MMA or improve the way you are doing things." (Field notes, November 2010)

The other coaches utilised similar strategies to actively engage in research and dialogue with other coaches. This aspect of the coaches' skill involves a performance analysis of a sort, as proposed by Downey (Downey, 2006a). Mike also told me how he regularly studied videos and training instructionals online to discover new approaches and to stay on top of the developments as the sport was still young and constantly evolving (Field

Notes, October 2010). On many other occasions Matthew told me how whenever he had free time outside of running the gym and family time with his wife and two daughters he would spend it, in his own words, "like a geek" watching instructional DVDs and MMA competitions (Field notes, May 2011).

Although the fighters are not the primary focus in this thesis, the coaches also spent time studying any available material on future opponents of the fighters that they were coaching. The fighters from both of the gyms competed on a local and regional level, so material from their opponents' previous contests was often available through video streaming websites such as YouTube, where the fighters or promoters had posted video materials of their fights (Field notes, January 2011). Often the coaches would study these materials together with the fighters, identifying the strengths and weaknesses in their skills as well as those of their opponents, which further illustrates the collaborative nature of the pedagogic and enskillment processes.

In order to understand the development of ways of knowing skill in practice, the pedagogic practices and the skills of coaching need to be equally attended to in analysis. This is crucial for understanding the way that practical knowledge is shared and achieved through close bodily collaboration between the coaches and practitioners. The attention to lived through practices also allowed me to consider the manner in which the distinction between the "master" and the "apprentice" is not one that is clear cut, or mutually exclusive. I now explore the ways in which the collaborative, corporeal and interactive learning and pedagogic relationships are crucial to bodily ways of knowing.

THE INTERSUBJECTIVE CONSTITUTION OF MMA SKILL

The discussion so far has illustrated the complex sensory and bodily facets involved in the process of developing MMA skills. MMA is an individual sport, but the learning and pedagogy are collective and inherently intersubjective. MMA skill is reliant on the practitioners' relation to another practitioner, whether it is a training partner simulating an opponent or an actual opponent in a competition. The skilled movements, techniques and their application, constitutive of knowing skill for MMA always takes place in relation to the bodily positions and movements of the training partner or opponent. MMA practice involves engagement in close body contact in a clinch and on the ground where the importance of the social logic of the constitution of MMA skill is brought to the fore. This underpins the way the processes of enskillment and pedagogy of MMA

are not acquired by the practitioners in isolation, but rather skills are developed together. In this final part of the chapter, I tease out how the skills learnt and taught are constituted through collaboration, social interaction and dialogue.

I argue here that intersubjectivity is fundamental to how skilled MMA activity is achieved in practice. The findings illustrate the potential of Merleau-Ponty's (1964) theory of phenomenology, in analytically drawing out the intersubjective and social constitution of ways of knowing MMA. Here I demonstrate how the phenomenological work of Merleau-Ponty (1962) is useful to developing an analytical grasp of this intercorporeal constitution of skill. At the very core of his understanding of human existence is that the embodied being and the world are co-extensive. Merleau-Ponty (1962, pp. 452-456) writes, "man is but a network of relationships and these alone matter to him – the embodied subject exists as an intersubjective field not as a self referential singularity". Subsequently, Leder (1990, pp. 66-8) has summarised how this intersubjective field engages the embodied subject in an endless process of social and organic exchanges, reciprocities and interdependencies. This approach sees life as a constant dialogue between the relative generality and individuality, a dialogue that emerges from the data as fundamental to the practical making of the bodily skills of MMA. This particular approach is valuable for unpacking the dynamics of the processes of enskillment and pedagogy that are simultaneously individual and collective. It illustrates how Merleau-Ponty's (1964) work is also sensitive to how our social positioning plays a role in shaping our being in the world.

The discussion so far has already explored sensory education and its role in MMA enskillment and pedagogy, and the role of learning to feel and see the body motion of a training partner, as a significant for development of MMA skill. It is not just about what you do, it is about being able to relate to an opponent and what they are doing in relation to you. This intersubjective logic shapes MMA pedagogy and enskillment in that the majority of the training is done with a training partner. Consequently, the development of MMA skills includes the apprehension of the relevant actions of a training partner. In the development of MMA skill, training partners, and coaches as training partners, were fundamentally important to how skill was achieved. Enskillment and pedagogy of MMA is inextricably linked to fellow practitioners. Firstly, as MMA skills are based on a bodily exchange between two practitioners, the training partner is a kind of a pre-requisite for learning skills standing, in the clinch and on the ground. Matthew explained how the nature of the sport meant that in practice you always had

the performer and receiver of the technique, which consequently shaped the majority of the learning and coaching practices. On the ground and in clinching, the training partner literally provided the embodied scaffolding for practicing a move. Most of the technical training and drills are practiced within a loosely determined scenario. The training partner, who is not practicing the skill, is collaborative, providing a bodily structure that enables the practice of controlled resistance (Field notes, October 2010). Coaches emphasised the importance of the co-operation between the two practitioners because, otherwise, learning would not be possible. In training the practitioners took turns to practice the skill with each experiencing it from both perspectives, learning together, working together (Field notes, March 2011).

The collaborative relationships are also important in terms of sharing experiences and skills. Analysis indicated that training partners played an important role in facilitating each others' learning through bodily and verbal interaction. A brief vignette of my experience of training with a less experienced practitioner, Ray, illustrates the kind of interaction the analysis pointed to:

Sense of touch is crucial in pummeling drills, where the practitioners' upper bodies are tangled in a clinch. In this case. each has one arm over and one under, with controlled resistance you pummel your arm in as your training partner does the same: exchanging positions in a controlled struggle where the movement ebbs and flows. Here the visual sense doesn't help you very much because you are simply too close to get many visual cues of your training partner's body movement. Matthew notes how sometimes trying to see makes things harder and can slow things down. My training partner has not yet acquired the vocabulary for clinching and wrestling. Some of the terms do not have a real meaning for him or he cannot relate them to a body technique/movement. Whereas for me, and the others who are more experienced, the term instantly evokes a certain meaning that translates into a body position or a particular movement pattern. So some of the terms I have used, I realise, do not make sense to him, he cannot yet relate them to practice. Therefore, I have to verbally and physically show him what each thing means as we proceed in training, stage by stage. After doing the very first drill again and again and all participants have rehearsed the movement sequence plenty of times, he gradually begins to get the hang of it and now I can also practice properly because he is able to perform his part of the reciprocal drill. (Field notes, September 2010)

Practitioners also extensively discussed their experiences of the shared construction of skilled movements, techniques, understanding and application during interviews and discussions in the field. Michael, for example, described MMA as an interactive skill and told me how it was important that training partners worked together and communicated with each other because otherwise they would not be able to learn (Field notes, May 2011). Kyle described his experiences:

"Well he (the coach) usually tells us first what we need to do and practice, and if I train with someone else apart from him helps me when we train. I always have questions, millions and millions of questions. So when I'm training and I have questions and he helps me when we're training and helps to simplify in a way when I'm training, when and if I get confused (Kyle: Interview transcript, p. 4/22nd March 2011).

Noel, on the other hand, drew attention to the way the relationships between practitioners offers a ground for developing skills in action during free rolling:

'They [training partners] mean quite a lot. I would say they're very important where you can work with them as you're at the same level as them. I mean rolling with the coaches, it's very difficult to catch them with anything, like any moves and things like that on them, you know. Whereas the training partner, you're not really fighting a guy, he shouldn't be that far away in training from you. I mean they could be a bit better, but in general the skill sets can be different from your coach to your training partner, and when you roll with them it's different than when you're rolling with coaches, you learn either way.' (Noel: Interview transcript, p.7/18th February, 2011)

Andy, a full time sports science student who has experience in competing both in Thai boxing and MMA also talked about the interaction between training partners:

'It's because you can discuss things with whoever you're training with and you are discussing, well, this works for me and find what works for you so you can maybe alter it and explore and try something that's a kind of a variation.' (Andy: Interview notes p. 9/21st October 2011)

The process of developing ways of knowing MMA skill is constituted through collaboration, the bodily and social interactions and the relationships forged in the Wolf Pack and Warriors Gym. I have already illustrated the ways that the close working relationships the practitioners have with one another and their coaches operate in practice and the instrumental role bodily, sensory and verbal dialogue between them has for the practical processes through which MMA skills are developed. These relationships are an important part of the practitioners' and coaches' involvement in the

sport as well as being instrumental to the learning and teaching of MMA. The practitioners articulated this during interviews and discussions:

'I think it's because it's more like a group of friends, a coach who is also my mate rather than just an instructor who I pay money to do a class, he knows me as a person so he knows my strengths and weaknesses and so he's, well, it's not really like a strict syllabus like that he needs to do this to be a yellow belt and this and this and ticks it off. For the next belt tick this and this off. He kind of knows what I need to improve on and what me strengths are and that.' (Joe, Interview transcript, p.13/25th October 2010)

This is but one of the many examples about the web of relationships in the gym: the learning environment for MMA. The close body work involved in enskillment and pedagogies of MMA means the practitioners developed close working relationships and friendships. Trust was important in a sport where the skills learnt and practices are designed to put their body under pressure and could result in quite a serious injury. This was something that was developed through experience and over time. These working relationships and the developed trust, was even more important to the fighters whose involvement in practice was intensive in comparison to some of the less frequent, recreational practitioners. I will discuss the role of trust in the following two chapters on pain and injury because, in relation to developing these bodily forms of knowledge, it was particularly instrumental.

In the gym, it is the process of developing ways of knowing in practice that is the basis for these relationships. Furthermore, the analysis also drew attention to the role of humour or banter as a part of the learning process and the relationships between practitioners. During one of the training sessions Liam told me how you had to be able to have a bit of a joke and a laugh and how it did not mean that the practitioners were any less committed or disciplined, or somehow indicative of a lack of focus (Field notes, March 2011). Others shared this view and Peter and Noel, for example, talked about how it was good to be able to laugh at yourself and be able to have a bit of a joke at each others' expense (Field notes, October 2010). The data discussed in this chapter illustrates the potential in the work of Merleau-Ponty for analytically drawing out the intersubjective logic, which is instrumental to how skilled activity is developed.

CONCLUDING THOUGHTS

The understanding of how MMA skill is embodied, and collaboratively and experientially achieved that has emerged from this chapter communicates how knowing skill involves much more than being able to internalise a set of body techniques. Achievement of ways of knowing skills involves the corporeal-intersubjective and situated process of practical discovery, a continuous craft. Knowing skill in MMA is about knowing in action in the very essence of the term. Consequently, skill is about the development of bodily movement patterns and motor skills as well as perceptual abilities, both of which are crucial to being able to utilise skills in action, which is where the essence of the practical MMA skill lies. These practical processes shape the body and the sensory capacities through the practitioners' and coaches' engagement a variety of collaborative training practices. The picture of the processes through which MMA practitioners and coaches develop knowing skill that has emerged from the discussion above is a complex and dynamic one. I have demonstrated how the collaborative enskillment and pedagogic processes are grounded in the intersubjective nature of MMA skill, where these ways of knowing are inextricably tied the bodily movements, techniques and positions of the training partner. I propose that the embodied-sensory dialectics of practice that emerged from the analysis are constitutive to the development of knowing skill in MMA. These dynamics became visible through the phenomenologically-guided attention to lived-through craft on knowing skill. Knowing skill in MMA emerges as a process that mandates constant differentiation and is based on practitioners and coaches embarking on a journey of unending experiential, collaborative discovery.

With consideration to the depth and complexity of the processes involved in development of skill that practitioners and coaches craft together in the gym, I must emphasise that this is only part of the account on the varieties of embodied knowing of MMA. I have demonstrated in this chapter how practical development of skill is about much more than how to perform a set of body techniques. A further reason not to focus studies on practical knowledge, simply on body techniques as a guiding concept, is that this can easily result in a limited appreciation of ways of practical knowing. As I argue in this thesis, knowing a sport extends beyond skill. This emphasis facilitates a more holistic understanding of practical knowledge that encompasses a range of practical

skills, both explicit and tacit, as well as a range of shared understandings in addition to skill.

The next two data chapters extend this enquiry to include the varieties of knowing MMA. I explore the tacit and skilled knowledge of pain in MMA in chapter 6. Chapter 7 focuses on the shared, storied understandings of injury amongst MMA coaches and practitioners. These two further dimensions of practical knowing of MMA entangle and co-exist closely with knowing skill, and it is to where I now turn the attention in the next two data chapters.

CHAPTER 6: EXPERIENTIALLY GROUNDED, EMBODIED WAYS OF KNOWING PAIN IN MMA

Introduction

One of the regular training sessions is ongoing on the mats during the weekend MMA training session with the room temperature and rather pungent smell of sweat greeting those who enter the room. Everyone is gathered around the coach Matthew, and Noel, one of the regular practitioners, who are just about to demonstrate a sequence of movements. Everyone's eyes remain fixed on the pair as Matthew explains how to execute a 'double leg takedown', a little like a rugby tackle. It involves taking the opponent – in this case Noel – from standing onto the floor by dropping their body level in relation to their training partner, charging forward, wrapping both of the arms around their legs, and snap, lifting their body in the air just in order to let gravity do its job, slamming their body onto the mat with some force. This last action is accompanied by a loud thud and a wheezing sound as air escapes Noel's lungs and winds him. The sequence does not end here, as Matthew follows Noel onto the ground, assuming the top position across side, chest to chest, perpendicular to Noel's body, letting Noel take all of his weight through his body. For a moment, as Matthew's body lands with some weight, an expression of discomfort appears on Noel's face which quickly disappears. If Noel stopped every time he experienced discomfort, he simply would not get anywhere with training. The makeshift poster taped on the wall reiterates the point, 'you feel happy, you feel sad, you feel pain'. Matthew moves on to demonstrate a submission technique, isolating one of Noel's arms on the opposite side of his body by grabbing his wrist and sliding his other arm under Noel's upper arm and connecting it onto his own wrist into a key lock submission. Matthew asks us to pay attention to the way we need to make sure we keep our training partner's wrist close to the floor, slowly sliding it towards their lower body creating a heavy twist on the shoulder, grinding the shoulder in its socket until Noel taps as his shoulder can twist no further and the pain becomes too much. As the lock tightens, Noel bites his lip, showing a momentary grimace, and his other hand taps on the floor to signal submission – a successful move. The move can be made more efficient if you co-ordinate your whole body into it, twisting your body, your hips now facing his legs, Matthew explains as he executes the move with added details and the tap comes much sooner. 'Do you feel the difference?' he asks Noel, who nods and concurs, 'bloody hell, that second one was much worse'. The expression on his face tells a story as he tries to hang on for a while but cannot and only few moments later, has to tap. (Fieldnotes, March, 2011)

The vignette above is but one example of the way in which pain is a fundamental part of the daily practices, experiences and interactions of non-elite mixed martial arts practitioners and coaches in the Wolf Pack and Warriors Gyms. In this chapter, I explore the complex social and embodied processes of developing different experientially grounded ways of knowing pain in practice that emerge as central to knowing MMA. The focus here is to examine: 1) how the MMA coaches and practitioners learn to skillfully produce and develop resilience to pain; 2) how the practitioners come to find comfort in pain as well appreciate its negative potential; and finally 3) how the practitioners negotiate their experiences of pain in practice and in relation to the paradoxical meanings of pain in highly gendered environment of the MMA gym and wider context of MMA and sport in general.

The chapter is organised into three sections, each focusing on a different aspect of developing ways of knowing pain in MMA. The first part of the chapter focuses on describing how pain is central to knowing MMA skill, which was discussed extensively in Chapter 5. Through an analysis of the data collected, I examine how the processes of developing skilled production of pain and pain resilience are developed through embodied practice and experience, focusing on the enskillment and body pedagogies of pain in MMA with which practitioners and coaches engage in the gym. I argue that examining pain through the phenomenologically oriented ways of knowing perspective and ethnographic research methods can offer valuable insight to the way in which sporting practitioners' skilled practices understandings and meanings related to pain are developed in practice. This section illustrates the central role of pain to ways of knowing MMA. I also discuss here how practitioners and coaches do not associate these skills with violence due to their skilled nature. Finally, the third part of the chapter examines the development of tacit and explicit understandings of how the practitioners and coaches learnt to negotiate their pain experiences. I discuss how MMA practitioners are socialised to the paradoxical, gendered culture of pain in this sporting context by illustrating how they learn to express, suppress and talk about pain 'in the right way'. I explore further how, through these processes, certain understandings of pain come to be produced and reproduced in practice, paying attention to the gendered nuances of these ways of knowing pain in MMA. Building on the previous discussion, the second part of the chapter then focuses on how pain comes to be understood as both valued friend and foe in relation to the space, interactions and practices in the MMA gym, and with reference to wider discourses on pain in MMA and sport more generally. Throughout

the chapter I also connect with work of Spencer (2012a; 2012b; 2009) and Green (2011) respectively in relation to their ethnographic accounts on pain in MMA.

SKILLED WAYS OF KNOWING PAIN

An integral part of the daily training practices at the Wolf Pack and Warriors Gyms are the ways in which bodies clash, grapple, submit and are submitted in training for MMA combat. The practitioners' and coaches' bodies and joints are put under pressure and pushed to their physical limits by using skilled submission techniques that are designed to produce pain and/or damage to their opponent or training partner. This is not to mention the fact that they are also punched, kicked, elbowed and kneed, taken down, slammed onto the floor, often simultaneously having to deal with a continuous mixture of all the above. In addition, doing MMA also involves being constantly pressured, twisted, controlled and stretched, resulting in varying degrees of discomfort to not just one but both of the practitioners involved in a pairing. Jake, one of the coaches, noted during a conversation about MMA and pain that 'You've got to take some [pain] to be able to dish some out' (Field notes, November 2011). This example from a training session at the Scrap Pack Gym illustrates this point further:

The knee bar on Craig's leg is tightening and Peter is really going for it this time as they are in the middle of practicing a sequence of movements as a drill leading to a submission technique, which Matthew, their coach, has just demonstrated only moments before. From the point of view of the person on top executing the technique and submission, the aim is to pass the guard of their opponent. In the bottom guard position, Craig has his back to the mat and his legs locked around Peter's torso, controlling his hips. On the ground, controlling the neck or the hip is crucial to controlling the opponent's body, Matthew reminds them. Trying to pass the guard, Peter places his knee carefully yet still painfully to the centre, pressing against the base of Craig's spine. Then with a fast movement, he swipes the other leg along the floor, increasing the pressure on Craig's spine through leverage. Eventually, he gains just enough space to lift the knee up at the centre, pressing his weight into Craig with hands pressed on his hips for control. Kneeling across the inside of Craig's thigh, he is in the middle of passing the guard as Craig tries to defend. Instead of continuing the pass into a side control position, Peter spins his body around the leg on which he is knelt, grabs hold of his ankle on the way and falls into the leg bar. Suddenly, the submission is on, as Peter's hips are below Craig's knee joint. As Peter pulls the leg towards his body, the knee joint is under pressure, against its natural direction and range of motion – it's painful for sure. The increasing tension shows on Craig's face as time passes, slowly, almost as if in slow motion on a video replay. The lock is fully on before he manages to escape, and Peter is doing a good job in stopping his further attempts. Suddenly, yet not unexpectedly to either participant, Craig taps his hand quite forcefully on the mat, creating a sound of a light thud. Submission has reached its natural conclusion – a tap out. (Field notes November, 2010)

Importantly, in this section I consider how skilled ability to produce pain is developed by the practitioners and coaches in relation to their training partners, coaches and, potentially, opponents in MMA contests. This is an example of what Parry (2006) defines as tactical and intentional infliction of pain and potential harm, which he considers as characteristic to combat sports such as boxing. Pain is not merely an inevitable by-product of strenuous sporting practices. In a discussion of the evolution and technologies of No-Holds-Barred fighting, Downey (2007a) observes how producing pain and damage via skilled body techniques, as well as learning to resist pain, is central to the sport of MMA. This is supported by the two existing ethnographic studies by Green (2011) and Spencer (2012a; 2012b; 2009). The former has examined the attractiveness of pain to MMA practitioners and the latter has explores MMA fighters experiences of pain in connection to successful performance of masculinity in MMA and toughening the body in order for it to withstand the demands of the sport. The ethnographic data discussed in this section contributes to the existing research on pain by offering detailed insight to appreciating the pain practices and experiences of MMA practitioners and coaches as constitutive of an embodied, skilled way of knowing that is fundamental to the skilled knowing of MMA, in combination with developing the perceptual and movement skills discussed in Chapter 5. I begin by examining the vantage point of the coaches, and the body pedagogies of pain that are central to this process.

BODY PEDAGOGIES OF PAIN

In practice, the coaches at the Wolf Pack and Warriors Gyms share their experientially grounded skills of producing pain with the MMA practitioners through a complex embodied, sensory, intersubjective and social process that gives rise to a range of skilled ways of knowing pain in MMA. The coaching of primary and secondary movement skills designed to inflict pain and/or damage, and their tactical use to gain advantage, as well as control, care and codes of practice, are all important to the body pedagogies

utilised by the MMA coaches Matthew, Luke, Keith, Jake, Tom and Mike. Such pedagogic practices are thoroughly embodied, and focus on teaching the MMA practitioners how to develop the embodied movement skills, understandings and capacities that will allow them to produce pain in their opponent using a range of strikes or submission techniques. The pedagogies of pain are closely interwoven with those practices that are constitutive of ways of knowing skill in MMA discussed in Chapter 5. However, there are distinct insights that arise when examining the ways in which pain and skill intersect, and I explore these in detail here.

The MMA coaches share their skilled understandings of pain with the practitioners, and guide them in observing, experiencing and discovering the skilled movements designed to inflict pain and overcome their training partner or opponent. During the group sessions, coaches usually begin by demonstrating a particular move to them with another practitioner, step by step, showing them the different aspects that make up the particular skilled move:

Jake asks Phil to come and help him demonstrate the first movement sequence as the others gather around the pair to observe the movements. The first move is called butt scoot from the half guard lockdown position. Matthew explains how you need to push your shoulder into your training partner's diaphragm, swing your arms in and slide them underneath their buttocks, and connect your hands with an S-grip. You need to push your weight into their chest and tighten the grip, kick your leg out of the lockdown position and manoeuvre your body into a better position across side the opponent's chest, perpendicular to their body, one knee in and the other leg long for maximum balance and control, pushing your weight into them. Jake continues to show us how to move from the top across side position, and how to use our body to scoop the top arm past their head thus trapping their arm in front of their head, then how to slide the bottom arm underneath to the nape of their neck, before sliding your top arm under theirs to gain a handle on the nape of their neck, switching the grips on the neck. Step by step, he goes through each of the detailed movements, and shows how we need to pull the bottom arm out and place it beside their head, elbow facing the floor, and connect the other hand with the bicep of the top arm and squeeze tight. Phil's neck and arm are now trapped by Jake who shows how to prosecute the d'arce choke that is designed to cut off the flow of oxygen to the brain and eventually make the opponent lose consciousness unless they tap out to signal submission and for their training partner to let go of the choke. He also offers some tips on how to reinforce the technique: 'If they don't submit, push onto your tip toes and push your weight into them putting their neck under even more pressure, now that's got to hurt!' For the next fifteen to twenty minutes we focus on working on each of these steps, and Jake keeps reminding us: 'Don't just rush for the choke, if you don't get the rest spot on, you won't get to the choke' (Fieldnotes, October 2010).

Demonstrations such as the one detailed above enable the participants to see, and feel, the sequence of movements, and to experience the pain of the submission itself. The coaches focus on working with the practitioners enable them to learn how their body positions, movements and actions can be used skillfully to produce pain and potential damage to their training partner/opponent. It is not only about the mechanics of the skilled movements – it is also about sharing sensory and perceptual skills, and this often involves doing the move in question with them, allowing participants to experience what the pain of the submission feels like. As they demonstrate and verbally communicate the movement to the students, the coaches include some additional guidance on how to make the submission technique even more painful to the opponent. This might involve the most detailed of body movements, placing strain on a particular joint, teaching them about the weaknesses of their own and their training partner's bodies (Field notes, October 2010).

One of the regular training sessions at the Wolf Pack Gym (Field notes, April 2011) illustrates another aspect of the distinct body pedagogies of pain that are focused on communicating the ways in which pain can be utilised tactically, and not necessarily in the form of an actual skilled 'finishing move', such as a submission or a strike:

We are practicing some drills that involve a takedown, and a sequence of moves leading to a submission, when Matthew asks us to pay attention as he gives a detailed demonstration of how to make a transition to a particular position more uncomfortable to your training partner. In order to distract them from the attack you are going to go for, he instructs us to uncomfortably grind our forearm across our opponent's face as we move our arms onto the other side of their body. When I ask him about the purpose of these practices, he replies, 'well it's just to make them think about that rather than what you're going to do next' (Field notes, April 2010).

What makes the above distinct from the pedagogies of pain explored so far is that these pedagogies do not necessarily focus on or involve a skilled sequence of movements resulting in a submission. Rather, they focused on causing discomfort through the tactical use of body positioning and strikes that were not designed as finishing moves.

The coaches include these practices to complement the skills that they are teaching, and are quite explicit about the fact that the purpose of these strikes, or positional ways of putting pressure on their opponent, is purely instrumental in distracting the opponent, or hindering their escape through pain compliance or simply to wear them out.

Similar tactics are equally part of the coaching of stand-up and clinching training for MMA, used, for example, by Jake and Mike during one of the MMA sessions in which they teach us some 'dirty boxing'. We spend the whole session working on striking from the clinch position with pairs of practitioners closely entangled in a stand up clinch. The coaches teach us how to 'rough-up' an opponent up by using painful control on their neck, pushing or jerking it violently back and forth whilst trying to land strikes, and furthermore how to use elbows and forearms and essentially our whole bodies to cause discomfort and disorientation to our training partner (Field notes, May 2011). On another occasion, having a coffee with the recreational training group before training, I ask Keith about the term 'dirty boxing'. He tells me that it does not refer to moves that were illegal in MMA, but that the term stems more from how these kinds of moves would have been understood as illegal in the frame of reference of Western Boxing dirty here refers to the fact that these kinds of strikes are not allowed in the sport of boxing (Field notes, January, 2011). So in addition to learning to produce pain through actual finishing moves, embodied knowledge of pain in MMA also includes teaching practitioners how to use pain through different skilled moves in order to help them to defeat an opponent. These pedagogies encourage practitioners to intentionally inflict pain (Parry, 2006), to effect an escape, transition or to gain a dominant position that allows them to land strikes or submissions, which are utilised in combination on the ground, stand up and clinch. This contributes to the existing literature by offering insight in to the distinct nuances of the skilled ways of knowing pain for MMA in a way that has not been covered by Green (2011) or Spencer (2012a; 2012b).

Finally, also central to the body pedagogies focused on producing pain is teaching the practitioners to communicate submission to one another. A verbal instruction from Matthew, the head coach and owner of the Wolf Pack Gym, encapsulates the pedagogic value of the practice of tapping out to communicate pain to an opponent or training partner, as he reminds us before starting to practice the submissions,

'Remember, when in training, tap when you need to tap! It is not showing that you're weak but to signal the other person that they've got it right and they've executed the technique successfully and it's important to take this in guys. It's a crucial part of training to learn to tap when necessary in the training context – it's not about being tough, it's part of the learning process, otherwise you'll just end up getting injured' (Field notes, October 2010).

This is but one of the examples that illustrate the pedagogic value of tapping out, because it teaches the practitioners about the need to recognise and communicate to their training partner that the move that they are practicing has been successful. It is kind of a code of conduct that all the coaches reinforce during training sessions. Once someone taps in training, you must let go, because you cannot know for certain what is going on. While the other practitioner may be a position that seems harmless, they may actually be bordering on injury, and you might not be aware of this from your position. The more experienced regular practitioners also assist the coaches when they are training with less experienced practitioners, as when you tap, you rely on the other side to know that they have to let go and stop. The above discussion illustrates how, in line with Downey's (2007a) observations on the technical evolution of No-Holds-Barred fighting or MMA, that sports fighting and producing pain is an encultured and skilled form of knowhow that is subject to refinement, as opposed to something innate. This is something that has received limited in the existing literature on pain and injury. However, this study demonstrates that an analytical attention of body pedagogies of pain can contribute to understanding the development of skilled ways of knowing pain.

So, although the intentional infliction of pain is fundamental to ways of knowing MMA, the body pedagogies of pain, and teaching practitioners about control and care towards their training partners, are equally central. During one of the training sessions of the recreational MMA group coached by Keith, we rehearse a move called the 'Boston Crab', which has been incorporated into MMA from wrestling. Keith explains and demonstrates the whole sequence, step by step, move by move: 'Once in this position, you have to start turning them by stepping over their legs and that way twisting them. This'll be uncomfortable for their lower back – it puts a lot of pressure on their back and will undoubtedly be painful.' We then experience this discomfort when we practice the move. Once we have fully turned our opponent over, Keith instructs us about the submission. Having pulled their legs up slowly, he then wants us to put our weight on our training partner's lower back, into a submission. 'This is the "Boston Crab", which is a wrestling move', and Keith continues to explain how the wrestling move tend to twist the joints and put a lot of pressure on the opponent. He wants us to be careful

when practicing so as not to injure our training partners, 'after all without them we couldn't learn and practice,' he says, and adds, 'that's why you need to be careful'. So despite the production of pain being the central objective of learning, care for one's training partners is another aspect of the body pedagogies utilised by the MMA coaches (Field notes, November 2010).

During training sessions, the coaches emphasise that learning is the main goal, constantly observing the training and explicitly instructing participants to control aspects of their moves. Luke tells me that there is a fine balance between getting across the potential of the different moves and techniques on the one hand, and communicating how to control the force and intensity of the moves on the other. He explains that coaches need to be realistic enough to cause pain, but that it is important not to go over the top, because otherwise you will soon run out of training partners and students if either you as a coach keep injuring them or they end up injuring each other and not being able to train (Interview notes, p.7/27th October 2010). Communicating this to the practitioners during training also involves the coaches explaining the rationale behind the movements and techniques, how their bodies and the submissions work to produce pain, as the examples discussed so far in this chapter illustrate. However in the stand-up and striking aspects of practice, this control and care is just as important, and the coaches also play a role in making sure sparring - where strikes are used with more intensity compared to more technically oriented training – does not get too intense or out of hand. When sparring takes place in technical training, coaches always observe closely or make sure that more experienced practitioners are around to keep an eye on matters, and they can frequently step in and ask the guys to reduce the intensity. This further demonstrates the purpose of these practices as a learning activity in MMA, in much the same way as Wacquant (2004) and Heiskanen (2012) observe in the context of the boxing gym. In his ethnographic investigation of MMA participants in Minnesota, US, Green (2011) has offered insight to the way in which the shared experiences of pain contribute to a sense of intimacy and community amongst practitioners. The aspects of the pedagogies of pain examined here provide further insight to the way in which pain brings practitioners together in care displayed for ones students and training partners.

ENSKILLMENT AND PAIN: SKILLFUL PRODUCTION OF AND RESILIENCE TO PAIN

Having examined the coaches' practices and the body pedagogies of pain, I now explore the process of enskillment (Ingold, 2000); that is, developing ways of knowing pain from the perspective of the practitioner. The focus here is on how the mixed martial artists in the Scrap Pack and Warriors gyms learn to produce pain and damage at the same time as developing the capacity to become resilient to pain through an experientially grounded, embodied-sensory apprenticeship. Body pedagogies and enskillment are closely interconnected and overlapping, but I examine the data here in two separate sections in order to encapsulate and communicate the distinct features of both. I examine a number of processes and practices that are central to learning to skillfully produce pain in MMA: the reciprocal, intersubjective nature of the process; learning to use pain as a diagnostic device in learning, and learning to distinguish between 'just' pain and 'damaging pain'; and finally how practitioners develop resilience to pain through training, including specific conditioning drills designed for this purpose. Previously Spencer (2012a; 2012b) has utilised the concept of body callusing to describe to describe the process of making the fighters' bodies capable of withstanding and being resilient to pains of MMA training and fighting. However, he does not examine the skilled aspects of this process, which is the key focus here.I illustrate these different aspects of the enskillment process by breaking down an example of learning an 'arm bar' during one of the MMA training sessions in the Warriors Gym (Field notes, June 2011).

Tom and Jake have just finished showing and explaining how they want us to go about learning and honing our arm bar from the bottom guard into a follow up tip over arm bar. We are sitting on the mats closely observing so that we know what to do next at each stage of the move. Learning the skilled moves of producing pain through submission techniques such as arm bars, where the elbow joint is painfully pressured against its natural range of movement, is a two way process. As I illustrated in Chapter 5, ways of knowing MMA skill are thoroughly embodied and intersubjective – that is, they are inherently reliant and connected to the embodied actions of the training partner/opponent. This is also the case with skilled movements designed to produce pain, which in practice means the training partners take turns to practice the particular move, on this occasion an arm bar. Learning skilled capacities of pain involves developing an understanding of both perspectives – that of both the person delivering

and receiving the pain. I am rehearing the movement with my training partner Darren, and I go first in practicing the initial part of the drill: an arm bar from the bottom guard. Based on what we have been shown only a few moments before, we begin to explore the move for ourselves. My back against the mat, legs wrapped around Darren's torso to control his hips, I trap one of his arms by pinning it onto my chest with my arm. Using the structure provided by Darren's body, I open the guard, post one foot onto his hip and the other onto the floor momentarily as I scoot my hips out. The transition is not quite as smooth as I would like, but I continue nevertheless, swinging my leg over his head and trapping his arm in the process. I keep pinning his arm and lift my hips, which forces Darren's arm to straighten into the arm bar. I can feel his arm straightening, but somehow the leverage is not quite there. Tom notices I that I am looking puzzled as I try to re-adjust my body position. He asks us to stop what we are doing and then shows us the move again with Darren, emphasising that I need to make sure that when I execute the submission that Darren's elbow is above my hips, 'Otherwise you won't get the leverage, because the elbow joint is not in the right ', he explains. This illustrates that the practice is not just about mimicking the movements shown by the coach, but that it also involves an appreciation of the body mechanics and reasoning behind the movements that are being learnt. However, this is only one side of the equation. Harry, one of the experienced recreational practitioners, offers insight to another facet of the enskillment process:

'You experience pain and discomfort where you got an appreciation for how others may feel as well. Obviously it's individual, you don't know exactly how they're feeling, but you can have some sort of level of appreciation for it, so anticipation for what they maybe feeling. Because it teaches you through being embedded in the pain or whatever it is that you know that if somebody's for example applying a, let's say a lock, and they're applying it to the first two thirds that you can withstand, and they can't get a position to apply that final third, then you can survive it and pass through it and not have to stop or stop prematurely'. (Harry, Interview transcript, p.17/10th November 2010)

Consequently, learning to be on the receiving end of finishing moves and strikes is also a part of the process of learning to skillfully produce pain within MMA. In training, practitioners always take turns in delivering and being in the receiving end of the movement techniques rehearsed during the daily training practices. What Harry describes in the interview transcript above is how being in the opposite role is not only a

necessity for the practice due to the reciprocal nature of MMA, but a learning experience that allows practitioners to experience the pain that results from each skilled movement technique. This contributes to developing an understanding of these skilled practices. Through training, the practitioners also learn to distinguish between mere discomfort and the pain that indicates the successful execution of a particular move. Moreover, this also illustrates further the diagnostic role of pain in developing ways of knowing MMA that I touched upon in my earlier discussion of the body pedagogies of pain. The pain resulting from a particular move indicates that the move has been successfully performed by the training partner.

Whether it be in the sport itself as in like when a technique that's going to be put on you, you're going to be under some pain but it's the same with striking, you get hit and it hurts so [laughs]. I've been pretty lucky in that I've got quite a high pain threshold, which obviously helps. But whether you adapt and evolve and just get used to pain, because you're feeling it day in day out when you train, you just kind of get used to it. So it could be that what makes you more immune to it, and it is a big part of it. People try and inflict pain to win a fight, that's how you get a lot of submissions; it's through making somebody hurt to make them submit (Craig: Interview transcript, p. 16/ 25th March 2011).

It's where your instinct is sort of saying, well your body is saying that you're in pain, and you should stop, but to learn the skills you need to learn to hold on too, resist up to a point, you know, to know when that point is, and that you could get injured (Keith, Interview notes, 8th April 2011).

These quotes from, Craig, a fighter and Keith, one of the coaches, demonstrate the role of developing resilience to pain for MMA. In his discussion of the evolution of the fighting techniques, Downey notes that No-Holds-Barred fighters 'must learn from pain and to a degree are and overcoming pain offers a route both to success and to new knowledge (Downey, 2007a). In this regard, experience is central to developing resilience to pain, and this emerges from the data as another aspect of the process of developing skilled capacities of pain in MMA. Strikes to the head and different parts of the body, which are central to MMA practice, are equally painful, as they are produced by one body delivering force against the body of another practitioner. As Jake, one of the coaches, succinctly puts it, 'You get hit, it hurts'. Round kicks to the outside of the training partner's leg, for example, will not necessarily result in damage or injury, but are designed to be painful, as they strike the major nerve located on the outside of the thigh, causing discomfort to the degree of not wanting to put weight onto the leg. When

discussing training sessions with others, and during informal discussions which often take place during and around training in the gyms, many of the practitioners mention the aches and pains that result from the impact taken during training from strikes. Developing resilience to the pain of the different finishing techniques comes not only through experience and over time, but also through specific toughening drills that are designed to help the practitioners get accustomed to the pain, and thus develop an improved resilience to it. The importance of developing resilience to pain is heightened in competition where being able to resist a submission can be the difference between winning and losing, but this ability must be developed in the gym over time – it cannot suddenly be called upon in competition. Furthermore, Spencer (2012a, 2012b) has also noted how this ability to endure and develop resilience to pain is closely connected to the performance of successful masculinities in MMA. I will return to this point later on in the discussion.

Developing resilience to pain also involves learning to endure the strain and exhaustion that arise as a result of physical conditioning, both of which are important components of the embodied practice of MMA. Technical training alone would not make practitioners' ready for the intensity of MMA competition. An example of the kind of conditioning practices that result in such pain can be found in the MMA conditioning sessions with Matthew. These are grueling, hour-long workouts involving a number of exercise stations performed in circuit training fashion. After working for three 3 minutes on one station, each participant moves onto the next station, and continues in this way for the full hour. The exercises are designed to involve some sport-specific and some general conditioning exercises, including lifting bags, slamming them onto the floor, rope slamming, punching with elastic bands, and constantly pulling your arms back as you try to punch forward. As participants, we work our guts out, pushing our bodies through tiredness and exhaustion, and as I take part in the circuit I get a very visceral sense of the kind of exertion and pain that is seen as productive of a better level of physical fitness and conditioning for MMA.

In practice, bodies clash together with strikes, but this clash is also evident in the clinching, takedown and ground training, in addition to the fact that, in MMA, strikes can be incorporated to all these elements of practice.³⁵ In order to gain advantage, the

-

³⁵ In the original or traditional combat sport or martial arts disciplines from which MMA draws, the strikes are not allowed, and this is the case, for example, in wrestling and submissions wrestling, as well as Brazilian jiu-jitsu. MMA, on the other hand, incorporates strikes to all of these in conjunction

two bodies clinch and try to control one another through positional and pain control and compliance. On one occasion, Martin, the top fighter from the gym – who works full time as a guillotine operator for a printing company – and his training partner Nathan are sparring in the cage, with the others having gathered around to watch. Martin goes for a takedown, tackling Nathan against the cage at first, so hard that it literally rattles the cage. He continues to slam Nathan's body onto the floor. Peppering punches at one another the men's bodies tangle on the floor as they continue twisting, pushing and resisting. This time, Nathan manages to gain position and tries to control Martin by kneeling on his sternum, before deciding to let his bodyweight slam against Mark's chest. He turns and they scramble, Martin seizing the opportunity to get onto Nathan's back. 'Go for the choke Martin, come on!' the lads watching cheer on, and he manages to wrap his arm around Nathan's neck, connecting his hand to grab his own shoulder and squeeze his training partner's neck. Tighter and tighter the muscles in his arm contract, squeezing off the air flow. An instruction from Michael, 'Defend the choke, bridge your body, and defend!' just reaches our ears as Nathan taps Martin on the leg with his free arm and signals submission. The discomfort is too much and the risk of actual harm to the body as it is pushed to its limit looms near.

Such training practices allow practitioners to develop an appreciation of the limits of their embodiment, and to learn to distinguish between pain that can be overcome and pain that will result in damage. However, the embodied skills and knowledge, and their role within the embodied pedagogy of MMA practice, is only one facet of pain knowledge developed during training and fighting. As I reflect in my field notes on this topic: 'On a daily basis the training teaches you to learn and know where the limits of your own body are in relation to each technique, and I can observe in the class every time how different moves are different for each participant.' (Field notes, December 2010). This reflection parallels the views of those participants who frequently saw value in the way that, through doing MMA, they learned to know the limits of their own bodies. For Green's (2011) participants, these pain experiences, and precisely, the way MMA enabled them to explore the limits of their embodiment was the key factor that attracted them to the sport because it was something they were not experiencing in their everyday lives outside the gym. In fact, Green (2011) proposes that for them these

sensations were a unifying experience, allowing them to experience the inherently embodied nature of the self.

Furthermore, developing this knowledge constitutes a part of the practical, embodied knowledge of their sport. Jake contemplates this other facet of pain knowledge in MMA during an interview:

That's why you've got to learn to draw the line and say this is what my body can take and to tap, to save a limb or to save an injury. So again, I suppose, that's where you learn with your body, how it works, how to understand it, and what the limits are. (Jake: Interview transcript, p. 16/15th June 2011)

Through practice and doing, the practitioners become more aware of the level of pain they are capable of enduring, i.e., they learn to recognise the point at which physical damage can occur, where a joint is dislocated, ligament damage is caused due to overstretching, or something breaks or is fractured. Knowledge of the limits of the malleability of their embodiment closely connect with the subject matter of tapping out and its role in the pedagogy of MMA, as well as its use as a pedagogic device.

This also relates to Downey's (2007a) note on the importance of learning to endure pain either by ignoring it or by being more attuned to one's embodied sensations of strain, and then resisting the sensation of pain to the point at which you know you cannot ignore it anymore, when the pain becomes too much and results in a submission and tapping out. This has also been observed by Spencer (2012a; 2012b) who illustrates how developing this understanding allowed fighters in his study push past pain during competition. Besides being able to produce embodied techniques that cause pain, it seems to be of equal importance to know one's own body, to understand how much it can take as well as the methods of communicating to others when to stop. This all combines to constitute another aspect of embodied-sensory MMA knowledge. During one of the small group training sessions, Luke, the coach, instructed the guys to work on a drill where they practiced getting the technique right and getting it wrong. The purpose of learning was to allow them to learn what "the difference was between a painful but not damaging unsuccessful technique and pain resulting from a successful technique with potential to inflict damage or result in unconsciousness" (Downey, 2007, pp. 145). The development of skilled ways of knowing pain which have been explored here give rise to particular understandings of pain as both positive and negative. I now

turn my attention to the different ways practitioners negotiate their experiences of pain in practice.

LEARNING TO NEGOTIATE EXPERIENCES OF PAIN IN PRACTICE

The discussion so far has demonstrated how ways of knowing pain are developed in practice. Building on these first two sections, this third and final part of the chapter will explore how these situated and embodied ways of knowing pain shape the ways in, which practitioners and coaches negotiate their experiences of pain with the complex, paradoxical and gendered meanings of pain in MMA. I focus on how the practitioners and coaches are socialised into a particular culture of pain through an examination of the detailed ethnographic data. This offers insight into how and why practitioners come to suppress pain, and, when it is not suppressed completely, how this pain is expressed more tacitly through body language, facial expressions and utterances. Furthermore, I illustrate how the practitioners and coaches learn to express pain 'appropriately', as well as the ways in which specific ways of knowing pain contribute to how they learn to talk about pain. Finally, I discuss how these ways of knowing are gendered in the male dominant space of these two MMA gyms, and argue that this illustrates the ways in which ideals of Western hegemonic masculinity are not only embedded in the values of sport (Messner, 1992; Connell, 1995), shaping both men's and women's attitudes towards pain in sport³⁶ (Charlesworth and Young, 2006), but also inform how practitioners negotiate their experiences of pain. Here I also draw on Spencer's (2012a; 2012b) discussion of the connections between pain in MMA and the successful performance of normative masculinities in the context of MMA.

KNOWING WHEN TO SUPPRESS PAIN

An example of playing down pain or attempting to suppress pain is illustrated by a session at the Warriors Gym, in which we are rehearing a striking and kicking drill.

As we begin training, I see Phil and Warren, who is a relative beginner, rehearse the drill, both taking it in turn to defend and take the kick to the thigh, and then to return strikes and the kick in kind. As the drill goes on, Warren's face reacts a little more each time Phil's leg repeatedly digs into his thigh – the pain is obviously getting to Warren, especially as he is a little less experienced. As pretty much all the men have told me, through

³⁶ This is not only the case in male dominant sports, but also in female physical cultures such as ballet for example (Wainwright & Turner, 2003)

practice you get increasingly used to the pain of getting hit, and you develop more endurance to pain. Warren is starting to flinch as the kicks land, and his body motion is becoming more tentative. His leg begins to stiffen up as the nerve on the side of the leg is getting hit repeatedly, and he is not putting quite as much weight on his leg as he did at the start of the drill. I can see him gritting his teeth. He does not seem to want to give in to the pain, and when Phil asks if he is alright, he nods and says 'yeah, I'm fine no worries'. However, Warren's body language gives it away as he continues to flinch almost uncontrollably each time the kicks land. At one point towards the end of the drill he kind of yelps as a result of the kick and one of the regular guys Darren shouts: 'Oh stop being such a softy'. He continues the drill, looking more determined than ever to suppress the discomfort of the leg kicks. My leg feels like it is on fire, flaring up with each impact. I catch myself doing exactly the above: trying not to show it, trying to hide it and to keep moving in order to show my leg is not too affected. (Field Notes, March, 2011).

As in many other sport settings, within the embodied practices of MMA, the ways in which the practitioners and coaches suppress and play down pain further contribute to the ways in which pain is understood and normalised (Donnelly, 2001; Sabo, 2001; Charlesworth & Young, 2006(Spencer, 2012a)). This fundamental role that the practitioners attribute to pain as a part and parcel of MMA is reflected in the attempts to suppress and ignore pain during training sessions.

The rationale, which for the most part underpins the suppressing of pain, is summarised by one of the coaches in our conversation during an interview: 'If you stop every time or complain when something is a bit uncomfortable or painful you wouldn't get anywhere at all really' (Tom: Interview notes, p. 5/10th October 2010). The fellow practitioners often encouraged less experienced practitioners as well as each other to toughen up and suppress pain. Consequently, continuously complaining about pain was equally discouraged by fellow practitioners. The coaches and fighters experiences and practices also highlighted how in competition being able to suppress pain and not showing that you were hurt had a tactical purpose. One time during a training session Matthew the Wolf Pack coach explained to me that sometimes if you showed the opponent that you were hurt could actually give them an advantage (Field notes, January 2011). Consequently learning to suppress pain in training was central to developing ways of knowing pain for MMA.

The way practitioners learnt to suppress pain and view this as a desired response to pain was also informed by the mediated discourses of sport, masculinity and pain as well as the 'sport ethic' described by Sabo (2001). The MMA magazines and event coverage widely utilised imagery of MMA fighters as modern gladiators, oozing toughness, in addition the related product branding and advertising often draws from well know sporting maxims such as no pain, no gain. In the space of the MMA gym the practitioners and coaches were constantly reminded of these 'values of sport' in the various posters and slogans displayed on the gym and changing room walls, that reinforces them in this particular context. This observation is also supported by Spencer (2012b, p. 106) who notes how these 'maxims reflect the virtues of the normative masculinity in MMA, that is, to learning to live with and through pain to attain victory'. Furthermore, Young et al. (1994) have pointed to how in male dominant sports willingness to take risks and suppressing pain are valued as much as skill. Even in the non-elite context of these two MMA gyms the suppressing pain was valued in similar fashion as in the context of professional sports, widely researched in the existing literature on sport and pain.

LEARNING TO EXPRESS PAIN: BODY LANGUAGE, FACIAL EXPRESSIONS AND SWEARING

In the midst of practice, as the coaches and practitioners engage in MMA training in its various forms, the inherent role of pain within the sport is reflected in the way pain becomes visible or audible when it breaks to the surface or, importantly, when it is expressed through body language. This is something neither Green (2011) nor Spencer (2012a; 2012b) examine or analyse in their respective studies. However, I here want to give a voice to these fleeting yet significant moments of strain, pain, exhaustion, agony and discomfort that often show on the faces and bodies of the practitioners, as well as the many occasions where pain was verbally expressed. I believe that paying close attention to these moments in time is important because they reveal more about the meanings of pain in practice, where certain understandings of pain are generated and reproduced. Of course, the ways in which pain is suppressed, sometimes despite injury, in the practices of training and fighting when hurt are also important, along with the ways and situations in which pain is talked about, and these dimensions are discussed later in this section.

During participant observation of the various training sessions, pain is expressed frequently as the guys rehearse submitting each other with chokes, joint locks and

movement sequences. It is here that pain materialises and is expressed very commonly via non-verbal mediums. It literally materialises on their bodies through facial expressions and body language. During a free rolling session which took place during the second half of the training session on this particular winter evening, it is evident that throughout the guys involved are constantly experiencing varying degrees of pain and discomfort as they grappled on the ground, and as they and their training partners interchangeably and simultaneously try to control the body of the other. As Andy and James roll in close to the corner of the mat, both show the pain on their faces through a multitude of facial expressions, which include squinting their eyes and biting their lips, as well as gritting their teeth. James manages to attack on his back from the bottom position as Andy has left his arm unguarded. James seizes the moment and traps Andy's arm, angling his body and enabling him to wrap his legs around Andy's neck and arm into the triangle choke. Andy tries to resist, defend and escape, but the choke sinks in further as James squeezes his legs. The expression on Andy's face is a mixture of determination and a grimace as his facial muscles are tensed, and as he feels the pressure and the discomfort of the choke until it becomes too much. He taps his hand onto the floor to signal submission, and as James eases the choke he gasps for air and you can see the relief on his face. They shake hands and start again (Field notes, November 2010,).

On another occasion, as the regular fighter lads are helping Noel prepare for his fight by doing some sparring, these expressions surface again when Noel and Peter clash in the cage, combining the different elements of MMA together, from stand up to the clinch and to the ground and back up again for five grueling minutes of action. They exchange punches and kicks, and Noel manages to cover and parry some of the strikes Peter is throwing at his head, but some of the punches land as he simultaneously attempts to deliver some strikes of his own. As the strike lands, momentarily his eyes close and his face tenses up to a grimace, disappearing from his face almost as soon as it appears. As Noel lunges forward with a jab at Peter's head, mid-flow, his movement is intercepted by Peter's knee driving into his mid-section, physically pushing Noel's body back. Noel's body drops down, almost unwittingly responding to the impact, and the pain emanates from the expression on his face. 'Phwooah, that's got to hurt', shouts Neil, who is timing the round, 'gosh, he just walked straight into it. Come on Noel, shake it off, and keep going.' The battle continues (Field notes, February 2011).

Sometimes the pain also results in a verbal outburst. In most cases, I found this involved the utilisation of a wide range of swear words or grunts which were let out by practitioners at the acute moment of experiencing pain. However, the manner and meaning of these verbal outbursts was more of an expression of defiance than a whimper of someone giving into pain. Swearing in expression of pain appeared to be a common strategy employed by the practitioners in both fieldwork settings. This is can be viewed as illustrative of the practitioners attempt to adhere to the normative masculinity in MMA where displaying resilience and toughness in the face of pain is valued (Spencer, 2012a; 2012b) Part of the practical reasons for this strategy for expressing pain, and why it has become an acceptable method of expression within the training space, is due to the positive reinforcement from other practitioners around them, as swearing is not something that is regarded as unacceptable in quite the same way as it is in many other everyday social environments such as workplaces or educational institutions. Moreover, other practitioners around them respond to their outbursts as a natural and acceptable way to express pain in the training space. There seems to be a tacit sense of acceptance stemming from their shared experiences of pain with other mixed martial artists. They know what it feels like when you are being choked, or feeling that your arm that is stuck in an arm bar and being strained to its limit in excruciating pain. These shared pain experiences are perhaps less explicit, but nonetheless I would argue that they are significant not only in terms of the ways in which practitioners make sense of and express pain in practice, but also the ways in which, and reasons why, they may attempt to hide or suppress it, or the ways in which they talk about pain, and if they do, which is the focus of discussion in the final part of this section.

LEARNING HOW TO TALK ABOUT PAIN

I mentioned previously how there was a sense of a shared understanding of the meanings and value of pain between the practitioners, and how this was based on shared experiences in training. Pain is also talked about by the participants during, in between and after training sessions. This talk and narrative between and by practitioners appears to operate as a collective practice that contributes to the manner in which they make sense of the different kinds of pain. In the context of chronic pain and illness, Frank (1995; 2010) has noted how stories told about pain and illness are social, which means that the way we talk about these topics is also shaped by those who we tell them to.

Consequently the storyteller learns about the standards of what is an appropriate or not an appropriate way to talk about pain. These 'rhetorical expectations' are learnt and reinforced or rejected in the subsequent telling and re-telling of stories (Frank, 1995). The kinds of pain that are discussed, and the absence of certain kinds of pain from the conversations, are precisely illustrative of these kind of rhetorical expectations in action. These expectations, alike the ways of knowing pain, are situated in a context which shapes these expectations. I have discussed in the previous section how in this context pain is closely interwoven to particular values of sport and normative masculinities. The following paragraphs focus on this phenomenon of 'pain talk' that emerged from the field data. In their sociological work on pain, Williams and Bendelow (1998) argue that telling stories and talking about pain plays an important role in making sense of being in pain, and that it can also help to create a shared sense of understanding of these experiences. Therefore, exploration of pain talk is significant for developing an understanding of kinds of pain and its varied meanings to ways of knowing pain in MMA.

Although pain was often suppressed, to a degree at least, in training and in competitive MMA fighting, it did pop up in the regular discussions and exchanges between practitioners and coaches. For example, I observed a discussion between a fighter, the coach and some of the regular practitioners and fighters from the gym. This took place prior to a training session one afternoon following a fight show weekend this particular fighter had fought and won. The young men were casually sitting around the reception area, on the sofa; some were in and out of the changing room as the discussion went on, getting ready for training. Equally, the less experienced, novice practitioners observed the discussion, carefully listening, but not really taking part in the discussion. Martin had dropped by to see Matthew, our coach, following the fight weekend, and was talking about how he felt during the fight itself. He began by explaining how he had felt the excitement and buzz at the start of the fight, and how he felt like he was 'on fire' for the first round. He then continued to describe how, in the following round, he suddenly hit the wall: 'Oh man, I felt fucked mate, I was so exhausted I was in agony, felt couldn't move out the way of punches. Then I though, fuck it! I'm not giving up and managed to pull it around and get him at the end' (Field notes, October 2010). These kinds of stories are often followed by different kinds of admiring comments on the storyteller's toughness and achievement. The narration of pain was quite common in the field data, and where when pain was talked about it tended to be through stories of

toughing it out, managing to overcome pain despite the discomfort. This, in turn is illustrative of the practitioners adherence to the normative masculinities in MMA (Spencer, 2012a 2012b). Ultimately, these were stories of the processes of positive pain in action. Here overcoming and enduring pain became a strong signifier of practitioner status, because where pain was due to exertion in particular, this was viewed by practitioners as a sign that they were working hard, and that they were doing the right thing, and this sentiment was expressed by many of them.

I intentionally noted above the fact that the novice practitioners did not really take part in this discussion between the coach and the more experienced participants. The others who did had all competed before or were experienced, regular participants in the gym with experience in sparring. They were all almost unconsciously nodding as Martin was telling his story, and occasionally interjected with sympathetic accounts from their own experiences of overcoming excruciating pain and exhaustion. The topic of how overcoming pain, or working within the pain barrier either in sparring or in resisting submissions in training or related conditioning workouts, was often discussed by participants at all levels in and around practice sessions, as well as immediately before and after. You had to gain experience, and experience in particular of competition, to gain embodied/physical practitioner capital or status. Pain talk in the context of noninjurious pain and practices was mainly discussed in the context of positive, productive pain, and in terms of stories of overcoming pain or demonstrating pain endurance in a quite a rational, instrumental and non-emotive way. In a sport where, as Jake one of the coaches summarised when asked about the role of pain in MMA, 'you're going to get hit, and it hurts' (Field notes, September 2010), by definition enduring pain is rewarded and giving into pain or complaining about every bump and knock of practice was viewed negatively. If someone in particular complained about pain in a way that was seen as unnecessary, he was soon put back in line with comments like 'stop whining like a woman.' I will discuss the gendered undercurrents that contributed to these kinds of comments in the final part of this chapter.

A great deal of the work on pain within sporting contexts done to date, and the accounts of many sporting practitioners at competitive or elite level, understand suppressing pain as an acceptable way of dealing with feelings of discomfort and exhaustion. This can also be accompanied by actual physical harm or injury, including the practice of playing hurt, despite pain or injury, yet few if any of the existing accounts actually explore how the pain is expressed when it is not suppressed. This is an important consideration, as

some wider research on pain has shown that facial expressions and body language reveal more about sensations of pain than a thousand words, to use a cliché, which, however, makes my point rather well (Ekman & Rosenberg, 1997).

PAIN AS FRIEND AND FOE: SITUATED MEANINGS OF PAIN IN MMA

So far in this chapter, I have explored ways in which skilled ways of knowing pain are developed through the experience and practices of MMA, and how practitioners learn to negotiate their experiences of pain in practice. In this final part of the chapter, I discuss the different ways pain emerges in the practice of MMA, and how, through the development of skilled ways of knowing pain, these sensations are attributed paradoxical meanings by the mixed martial arts practitioners and coaches in the highly gendered space of the MMA gym.

As this chapter has illustrated so far, pain is a complex and fundamentally important part of ways of knowing MMA. Pain is inextricably woven into the practical, experientially grounded, bodily-sensory knowhow and plays an important role in both the body pedagogies of the coaches and the enskillment process of the apprentices learning the ropes of the sport. Earlier in this chapter, I quoted Parry (2006) to illustrate how the intentional infliction of pain and/or damage to the opponent to varying degrees is the raison d'être of full contact combat sports such as boxing. This examination of MMA experiences and practices shows how pain and skill intersect in a way which gives rise to pain as something that becomes highly valued amongst the coaches and practitioners. All those involved in the sport in the Wolf Pack and the Warriors Gyms articulated the importance of pain to MMA practice, and saw it as part and parcel, inseparable from their daily training practices.

The wealth of existing studies on pain and sport do not analytically attend to pain as something that is valued on account of its contribution to skill. However, appreciating this connection between pain and skill is something that bears particular relevance to combat sports and, I argue, underpins in part the way pain is attributed meaning through practice and experience as something valuable and productive. Developing skilled ways of producing pain is instrumental to ways of knowing skill for MMA in the daily training and coaching practices in the gym. Central to the coaches' pedagogies is communicating the value of pain when learning to perform and apply skilled movement techniques designed to produce pain, as well as how pain can be used strategically to

gain advantage over the training partner or opponent in MMA. Pain is equally fundamental to the process of enskillment, and from the perspective of the learners pain is a valuable perceptual diagnostic which contributes to how they gradually develop their skills and understanding of MMA. Experiences of both producing pain and being on the receiving end of these skilled movements are at the heart of how pain comes to be understood as productive in MMA.

Pain is also attributed a positive meaning, more widely recognised in the literature on sport, as that which contributes to an improved performance (Sands, 1995; Smith, 2001; Monaghan, 2001; Bale, 2006). The interview extract below illustrates another way in which MMA practitioners make sense of their experiences of pain, and come to value them and even find them reassuring.

Well there is kind of good pain, say I'm doing cardio or sparring, and I'm really pushing myself of course I feel sore and tired. Everything is hurting, but in my mind I know that it's meant to be like that, and just keep pushing myself really. To me, that proves that I'm pushing myself and I'm training alright. Of course, there's ending up with your arm behind your back, and then to me, that's worse pain than when you're tired, here I know if it'll go anymore I will get injured, if I take any more. (Joe: Interview transcript, p.12/25th October 2010)

In line with the following quotation from distance runner legend Steve Ovett, the practitioners' see pain as reassuring or even comforting: 'You go through a retarded physical and mental condition where physical pain becomes like an old friend. When it starts to hurt, you know you are doing what you should do' (quoted in Hughes, 1987). In the existing literature, understanding pain as productive in terms of improved performance has been examined by Bale (2006), in the context of distance running, and Howe (2004), in a study of a number of sporting contexts. Furthermore, another dimension that communicates the embodied nature is the physical exertion that is part and parcel of MMA, and the accompanying physical conditioning, which involves pushing the practitioner close to their limit. The aim is to improve the physical performance, without which the technical performance of embodied MMA techniques would not be possible.

ON SKILL, INTENTIONALLY INFLICTING PAIN AND 'VIOLENCE'

The data I collected also shed some light on a further dimension of the meanings attributed to pain as a result of training practices of MMA. In his discussion of boxing, Parry (2006) notes how this strategic and tactical infliction of pain and/or physical harm is the central impetus that not only permits but also rewards, and acknowledges that the ultimate goal is to defeat one's opponent. Martin, one of the pro fighters who, in addition to his locally successful five year fighting career, works full time as a guillotine operator at a printing company, revealed the following to me about his experiences of MMA competitions:

When you're having a competitive fight, it's the ultimate test really if you can really make the techniques work against someone, you really go all out, whereas in training you do hold back, but you have to go for it, you've got to punch them and mean it (Martin, Interview transcript, p. 10/25th October 2010).

The MMA practitioners and coaches were, at the same time, very clear in their view that this intention to inflict pain and potential harm to another human being was not equivalent to violence, which they perceived as something that happened outside the gym. Consequently, it did not pose a moral dilemma to them, and many emphasised how they saw themselves as anything but violent. During a conversation during a short break from the training, James, one of the fighters told me how appreciating the potential damage that could be delivered through these skilled techniques and outside the MMA context actually deterred him from even considering using them outside the gym (Field notes, March, 2011). These meanings stand in stark contrast to the outsidelooking, mediated, public image of MMA (Maeda & Ching, 2009). None of the practitioners or coaches I worked with took part in MMA because they enjoyed hurting others during training or even during competition. If the opponent got hurt, the first thing you saw the fighter do was to go to check how they were. In the gym, care and control was given equal emphasis in both learning and coaching activities, as I illustrated in the first part of this chapter. When I probed further, it was the skilled nature of the activity that underpinned the way these practitioners and coaches made sense of the practices they engaged in.

The act of inflicting pain and discomfort and potential harm was not equated to violence by the MMA practitioners, despite the fact that violence is often that which sociological investigations and accounts of combat sports - mainly boxing - focus on in their descriptions of these sports (Sheard, 1997). Yet from the practitioners' perspective, in their negotiations of their involvement in the practice of MMA, which outside the sporting sphere would in most cases be punishable as violent crimes, they viewed the intentional infliction of pain as skilled and instrumental, as a means to an end, and as that which was legitimate within the framework of the sport in which they were taking part. Only in few cases (Dunning and Rojek, 1992; Rojek, 1992; Parry, 2006) have authors engaged with a more detailed dissection of what is meant by violence in sport. The meanings practitioners attach to intentionally inflicting pain, and when they talk about violence in their sporting context, and in particular in investigations of combat sports has been analysed to a limited degree. Studies of sport and violence have examined audience violence, for example football hooliganism (Giulianotti, 1995) or alternatively have taken a more psychological perspective on the subject. Sociological studies of sport and violence have largely focused on examining the development of the appeal of so called 'violent sports' from the socio-historical figurational perspective. This has also been the case with many of the early sociological studies on MMA, which I have discussed in more detail in Chapter 1.

These approaches have resulted in a body of work that has explored violence in sport from a more theoretically oriented perspective, and the contribution or the voices of those individuals involved in these sports labeled as violent are absent. In this chapter, I have used Parry's (2006) term, 'intentional infliction of pain and/or harm', rather than the concept of violence, due to the unproblematic use of the concept in the existing literature. However, I do not mean that the manner in which the practitioners, myself included, did away with the idea of being violent through rationalisation of this activity as skilled should be taken at face value. But this illustrates the complexity of the issue of violence, in particular in the context of full combat sports and the need to problematise the concept through an approach that acknowledges and is critical of the mediated, public and outsider image of a sport, whilst also attending to the perspective of the practitioners.

The meanings attributed to skilled ways of knowing pain so far are only a part of the story, and as the above paragraphs have begun to illustrate, there are complexities that emerge from the experiences and interactions between coaches and practitioners in relation to that pain which does not result in actual physical harm or damage (Parry, 2006). In addition to seeing pain as something productive, as that which is generative of

skills and performance, it is simultaneously understood as something to be resisted, overcome and suppressed. Being able to skillfully and tactically overcome an opponent through intentional infliction of pain and suppressing pain are both highly valued amongst the coaches and practitioners. This stems in part from the central role that developing resilience to pain plays in MMA practices and skilled ways of knowing MMA, as I have discussed in the chapter so far. Consequently, being distracted by pain can hinder practice, enskillment and competition. These meanings that are attached to pain are mainly centered on practitioners', coaches' and fighters' practices, as well as conversations with them during training sessions, in which they saw pain as an unwelcome distraction in the melee of a competition and training, because reacting to sensations of pain too strongly would distract them from the task at hand (Field notes, February 2011). It also became clear, though, that the most negative meanings attached to pain were focused on that pain which resulted in injury, or had the potential or uncertainty of being a signifier of injury. Whereas the meanings and dimensions of pain discussed in the previous paragraphs were central to the formation of practitioner identities, the aforementioned pain of injury or potential damage had the connotation of unmaking of these bodies and identities, which I will discuss further in Chapter 7.

GENDER AND WAYS OF KNOWING PAIN

The practices and experiences in which the MMA participants engage regarding noninjurious pain are also shaped by the processes of gender and socialisation into the
'sport ethic', which is intertwined in the training and coaching practices in the space of
the MMA gym. As Charlesworth and Young (2006) emphasise, both general gender and
specific sporting socialisation influence the ways in which pain is coped with by
sportsmen and women, and contribute to the ways in which pain is attributed positive
meaning yet at the same it is understood something that needs to be suppressed and
overcome. Contemporary sport in general is an institution thoroughly permeated by
values of hegemonic masculinity (Burstyn, 1999; Bordo, 2000), which is not to say that
diverse masculinities exist within MMA. The values of the physical domination of an
opponent, winning at all costs and not giving into pain, being tough and pushing to the
limit, are all values strongly connected to Western hegemonic masculine ideals
(Spencer, 2012a). Within the fieldwork environment, the practitioners predominantly
referred to the values of sport when they spoke about overcoming pain during practice,
rather than referring to the desire of fulfilling a particular type of masculine identity.

This illustrates how the two are so closely intertwined, and how masculine values are so embedded in the world of sport in general and MMA in particular, that practitioners easily relate to these values and use them a resource in dealing with pain in ways that are further illustrative of the pain principle coined by Sabo (2001).

The male-dominant space of the MMA gym and wider discourses of pain in MMA in general shape how pain is attributed both the positive and negative meanings that emerge in the field data, and which have been discussed so far. A great deal of work has been done on the topic of gender in relation to pain and injury within and beyond sporting environments (Bendelow, 1993) and Spencer (2012a; 2012b) has made these connections in the specific context of MMA. In sporting literature, exploring connections between gender and pain tend to focus on examining the differences in men's and women's ability to cope with pain (Nixon, 1993; Charlesworth and Young, 2006). The practitioners and coaches in the Wolf Pack and Warriors gyms did not explicitly attribute the patterns of their behaviour to gender. Rather, they referred to the values of sport, to winning by dominating one's opponent. However, I would still argue that gender is relevant in terms of the manner in which different kinds of pain are attributed meaning, which also shapes the way pain is experienced and expressed. Such studies have aimed to discover whether men and women engage equally in the practices in sporting environments that rationalise and normalise the development of resilience and acceptance of pain, and of encouraging sportsmen. Following the findings of existing research, women engaging in sport and physical culture are equally complicit in the socialisation of the culture of pain. On reflection, for me as a researcher, and also in my capacity as an MMA practitioner, there was clearly a gendered nuance and influence on the way I felt about pain and experienced it. Even though I was a part of the group, I found myself suppressing pain, not wishing to rock the boat, by 'behaving like a girl', falling back on the stereotype and spoiling my practitioner identity. This is in line with Bendelow (1993), who argues in her study on gender and pain that the physical experience of a body is shaped by the social categories through which it is known and experienced. Charlesworth and Young (2006) note that both general gender socialisation processes and the socialisation to the acceptance of the sport ethic are not free of the influence of gender, even though practitioners may not view it as gendered. The closely intertwined nature of the two, make it challenging to resist or challenge these situated influences.

The gender socialisation not only influences the value attributed to pain. As Bendelow (1993) notes, women are sometimes seen as being better equipped to cope with certain kinds of pain, and are often regarded as having a more accepting approach to emotional pain as something that is real. However, men are more likely to separate out definitions of pain, and are reluctant to consider emotional pain as real, and view showing emotional pain or an emotional response to pain as less respectable. This is illustrated by the way that appropriate expressions and talk about pain was developed in the Wolf Pack and Warriors gyms, where too explicit or emotional responses to pain were actively often discouraged by fellow practitioners. Often these were also connected to the gendered undercurrents of emotional aspects of pain experiences. As Bendelow (1993) points out, male socialisation actively discourages men from being allowed to express pain; it is not seen as a respectable way to deal with it. In sporting contexts, as many authors note (Nixon, 1993; Donnelly, 2001; Pike, 2001; Bale, 2006; Charlesworth and Young, 2006), giving into pain and showing physical weakness or emotion often has, in sporting environments, the connotation of weakness of character, or in Goffmanian sense, as a spoiled practitioner identity (Charlesworth and Young, 2006). In support of the findings discussed here, Spencer (2012a) has also made this connection in the context of MMA where failure to adhere to these values can have consequences to the fighters' sense of masculine self. This also emerges from the training practices and experiences examined in this chapter. I have examined the ways in which these meanings of pain in MMA were developed through experience and practice within the gendered space of the MMA gym, and how the practitioners negotiated their experiences of pain, which contributed to how the paradoxical and gendered understandings of pain operated and are, attributed meaning within the Wolf Pack and Warriors gym.

CONCLUDING THOUGHTS

In this chapter, I have examined the ways in which the explicit and tacit knowledge of pain is developed in practice by MMA practitioners and coaches. This chapter has illustrated the analytical potential of the phenomenologically informed understanding of 'pain as a way of knowing' perspective for extending an analysis of experientially grounded practical knowledge to the subject matter of pain. I began by exploring the different kinds of pain that were relevant to MMA practice, before moving on to examining how skills in producing pain were developed in practice, and this has some

strong connections to Chapter 5, which explored ways of knowing skill in general. This is something that has not been analysed in the existing ethnographic studies of pain and MMA (Green, 2011; Spencer, 2012a; 2012b), which I connected with throughout the discussion. Here, pain became a signifier of the successful application of a skilled technique. A further point of interest has been the way the practitioners do not consider this as violent due to the skilled nature and context of the activity. I have also considered the role of ethnography in the process of collecting data on pain as a way of knowing. Furthermore, I have offered an analysis of how practitioners and coaches developed resilience to pain in practice with reference to the ideals of normative masculinity in MMA. This led practitioners to develop an appreciation of pain as something productive, even comforting, through experiences of practice and daily interactions in the gym, as well as with reference to wider discourses about sport, pain and gender. I have also discussed how the practitioners and coaches learned to express, suppress and talk about pain in 'the right way with reference to the 'rhetorical expectations' (Frank, 1995) within this context. This chapter has illustrated the ways in which embodied, shared knowing of pain is developed through experience, practice and daily interactions in the MMA gym.

Before moving on to discuss ways of knowing injury, I also want to underscore the value of the chosen methodological approach to developing understanding of MMA and ways of knowing pain. Howe (2004) argues for the value of participant observation in collecting data on pain and injury in sport as it allows pain practices, experiences and expressions to be recorded as they occur in practice. In this project, participant observation was fundamental to developing an understanding of the processes through which experientially grounded, embodied knowing of pain is developed in everyday embodied training practices. It allowed me to capture the often fleeting moments in which pain was experienced, expressed and suppressed, and to note the interactions, reactions and responses of the fellow mixed martial artists and coaches in the MMA gym. In the interviews I conducted to complement the field data, the actual experiences and expressions of acute pain were not actively reflected on, due to the distance from the moment in which they occurred and were experienced. This issue is explored by Bourdieu (1999) in his discussion of the 'constructed' nature of the interview situation, and the way in which it is always to a degree removed from the field of practice. My participation in MMA practice, the field conversations and interviews gave me the opportunity to discover, together with the participants, how an understanding of pain was developed and talked about. This methodological approach was crucial to developing the insights presented in this chapter.

CHAPTER 7 – EXPERIENCES AND STORIES: DEVELOPING SITUATED WAYS OF KNOWING INJURY IN AND RISK IN NON-ELITE MMA

INTRODUCTION

During the Saturday afternoon MMA class we practice a drill that involves an escape from the triangle choke. Matthew and Mark demonstrate how to escape the hold (trapped by the opponent's legs that are locked tightly around an arm and neck) by standing up. Matthew stands up and shows how to push our weight into the opponent, stacking their legs towards their own head. He bends Mark's torso, putting pressure on his spine and neck, which eventually forces the opponent to let go of the triangle choke. Having practiced the move with our training partners, Matthew moves onto a variation of the same escape. This is a move we had practiced last week and similar to the previous move: Mark stands up from the triangle choke, but then he sits back down, puts his feet on Matthew's chest, and puts the power of his whole body against his legs, chest and spine in order to get him to release the triangle choke. As Matthew yields, Mark smoothly moves into a more dominant position across his side and on top. As we practice the final move, Jack, one of the heavyweights, suddenly grunts, lies on the floor and tells Matthew he has hurt his back. It is just a muscle spasm he specifies, an old injury. He lies on the floor trying to straighten up, cursing for a while, and Matthew goes over to check what has happened. Jack is slowly getting up from the floor, he is reassuring Matthew that he is really ok, it is just an old injury reoccurring and it will go away with a few painkillers and rest. He walks around for a while, stretching his back out and then returns to practice, injury aside. But Matthew gives Jack and Nathan another drill to work on, one that does not involve putting Jack's back under as much pressure, and the guys get back to training (Fieldnotes, May 2011).

At times during practices in the Wolf Pack and Warriors Gyms, bodies break down and get injured. Dealing with injuries and risk is part of the daily life in both gyms. This chapter aims to examine practitioners' and coaches' embodied experiences and stories of injury within a non-elite MMA context. With regards to this focus, the key finding from this study, explored in this chapter, was that the experiences and stories, with reference to the wider discourses of injury and risk in sport, are generative of ways of knowing injury in the MMA gym. Much of the focus on sport and injury, outside and within the context of MMA has examined the vulnerability of sporting bodies and gendered selves as a result of injury (Hughes and Coakley, 1991; Sparkes and Smith,

2002; Wainwright and Turner, 2004; Smith and Sparkes, 2005; Wainwright *et al.*, 2005; Charlesworth and Young, 2006; Loland *et al.*, 2006; Spencer, 2012b; 2012a). In the specific context of MMA for example, Spencer (2012a; 2012b) has illustrated with narratives of despair and loss, how fighters' injury experiences can result in failure to adhere to the ideals of normative masculinity in MMA. According to Spencer, this results in limitation to the body's potentialities that are so central to the fighters' status and masculine self, in a context where the ability to participate is fundamental to practitioner identities. However, in this chapter I employ Frank's (1995;2010) work on illness stories. This allows me to highlight how this process of unmaking of the sporting body and self through injury/illness that gives rise to injury stories, can also be a generative process. By this I mean generative of ways of knowing injury in MMA.

I also draw analytical attention to how the pathways to knowing injury are thoroughly social, intersubjective and situated within this particular context. I illustrate what injury stories can do as practitioners seek to make sense of their experiences of injury, often characterised by uncertainty, and negotiate the consequences of injury, treatment and risk. Here I also connect with Frank's (1995) concepts of the disciplined and communicative body, which are particularly pertinent for this study. It must be emphasised that these concepts are ideal types and not fixed, mutually exclusive categories that actual individuals are assigned to (Frank (1995). However they are particularly useful for analysing the role of injury stories and the manner in which practitioners employ storytelling in MMA.. This chapter connects closely to Chapter 6 that was concerned with the process through which ways of knowing pain are developed, and how practitioners negotiate experiences of pain in the gendered space of the MMA gym. In addition, Chapter 6 offered insight into how the meanings of non-injury related pain draw from the wider discourses of sport, pain and gender.

The analysis found that non-injury pain was equally central to MMA practitioners and coaches as injury and injury-related pain. Here, injury is understood as the breaking down of the body resulting in damage or limitations in function which can be, but is not necessarily always, accompanied by pain. I argue, following Parry (2006) that appreciating these nuances in the conceptual distinctions and overlap in analysis is important because they give rise to closely connected, yet distinct, meanings and distinct ways of knowing. I have begun to demonstrate the implications of this in Chapter 6, which illustrated the insight into non-injury related pain in MMA. I have examined in more detail in Chapter 2 much of the existing literature on these two topics,

which predominantly examines pain as a signifier of injury (Donnelly, 2001; Howe, 2004 Loland et al., 2006) and this is also the dominant emphasis of Spencer's (2012a; 2012b) study on pain in MMA. although some studies, such as Bale's (2006) study on long distance running, have acknowledged the positive, productive meanings attached to pain that is not related to injury.

Using the lived body as the analytical starting point, the analysis in this chapter draws from a combination of resources, most fundamentally from the phenomenological approach of Merleau-Ponty (1962) which is particularly helpful for directing attention to the injury experiences and understanding of injuries as embodied. Furthermore, phenomenological attention to intentionality and situatedness contributes to an appreciation of the contextual influences that shape the injury experiences and stories, and consequently ways of knowing injury, whilst also facilitating analysis of the active role of the practitioners and coaches in drawing on their experiences as they make sense of injuries. Williams and Bendelow (1998) argue this is often downplayed in more contextually oriented perspectives. Thus the analytical approach contributes to the existing work on injury in sport, reviewed in Chapter 2, where there has been a strong focus on these contextual approaches that examine the contextual influences of gender and power relations on how sports practitioners negotiate pain and injury experiences (Nixon, 1993; Donnelly, 2001; 2001; Sabo, 2001).

Furthermore, I propose the analysis drawn from the 'ways of knowing' perspective, also introduced in Chapter 2, and this phenomenological approach is useful for theorising embodiment and injury experiences because this analytical focus has not been explored in existing literature. The value, I argue, is to offer insight into how experiences are generative of experientially grounded, practical ways of knowing that connect the experiences, stories and practices in an active relation to the social setting of the gym, and wider context of injury and sport in MMA, which informs how practitioners negotiate their experiences of injury, the consequences and appreciation of risk in practice. Finally, I also demonstrate that some elements of the socio-narratology introduced by Frank (2010), which I have introduced in Chapter 2, are a valuable resource for examining injury stories, and other kinds of stories in sporting environments, because it attends to stories as performance, focusing on what stories do, and the role they play in informing selves and the social setting they are told in. Furthermore this approach acknowledges the inherently social nature of stories which allows me to examine how we can learn from MMA coaches and practitioners as

storytellers and the manner in which these stories generative of ways of knowing injury contribute to a shared sense of belonging amongst MMA practitioners.

Using this perspective in my analysis of experiences of injury and stories, my argument offers insight into the role of stories in the development of ways of knowing injury. In my analysis this combines usefully with the phenomenological perspective, which views stories as meaningful acts in the process of making sense of experiences – a connection that has been widely examined within literature on pain and chronic illness (Good, 1994; Frank, 1995; Nettleton and Watson, 1998; Williams and Bendelow, 1998). I argue this approach contributes to this wealth of research, which has so far tended to blur the distinctiveness of pain and injury experiences. To a great extent, these studies have examined experiences of injury in relation to identity and the kinds of stories they tell about the individual. The work on pain an injury in the context of MMA to date has predominantly focused on medical studies (Bishop *et al.*, 2013).

Having outlined the scope and aims of this chapter, I offer a brief outline of the chapter itself. I begin by describing and analysing the injury experiences of the practitioners and coaches, which are presented through some selected injury narratives from the data. I discuss these different analytical points throughout the chapter in relation to these narratives and central aspects of MMA practitioners' and coaches' injury experiences and draw out the insights into how practitioners make sense of these experiences and develop ways of knowing injury. In the second part of the chapter I examine the role of experientially grounded injury stories in the development of ways of knowing injury amongst MMA practitioners and coaches. In particular I focus on how these stories are central to negotiating injuries, the consequences, and the management of injury and risk. I highlight throughout how these stories draw from wider gendered discourses of injury, risk and sport. I also consider how the analysis pointed to class as a relevant avenue of enquiry in the context of risk, injury and physical culture, with particular relevance to non-elite contexts.

WHEN INJURY STRIKES: EXPERIENCES OF INCURRING AN INJURY

Parry (2006), whose work I have introduced in Chapter 2, makes the conceptual distinction between 'incurring injuries' and 'existing injuries'. I encountered a wide range of injuries or suspected injuries during fieldwork, from minor sprains and strains to broken and fractured bones, torn muscles, and damaged ears and joints, to mention a

few. Some of these injuries, such as those occurring within the internal structures of the body and requiring no surgical intervention, were not necessarily visible to the naked eye, some were accompanied by different kinds of pain, but the participant's main injury concern was the potential and actual limitation to function and, consequently, the disruption to training and coaching practice. I begin this examination into ways of knowing injury by introducing some of the MMA coaches' and practitioners' accounts of their injury experiences, including my injury experience as a participant-researcher. I use them as a starting point and continue to draw from narratives of injury experience throughout the chapter to illustrate how experience and shared stories are at the heart of how the practitioners and coaches come to make sense, negotiate and manage their and others' injuries. I start with the coaches' experiences of injury and then describe the experiences of the fighters and recreational practitioners. I also describe how some injuries occurred during my fieldwork through vignettes peppered throughout. Apart from Spencer (2012a; 2012b), this has not been explored in the existing academic literature on MMA, which has focused on medical studies examining injury types incurred during MMA contests (Bishop et al., 2013)

So far in Chapters 5 and 6 I have examined the embodied nature of the pedagogic practices to ways of knowing skill and pain in MMA and how the bodily involvement of MMA coaches was central to these processes. In both the Wolf Pack and Warriors Gyms, the coaches had experienced a range of different injuries, many of which were overuse injuries that came and went, occasionally getting worse. On one occasion, Matthew told me about his re-occurring back injury, a soft tissue injury. Muscle strain in his back caused spasms, making moving around and even walking difficult and painful. This, he said, was a result of coaching group classes, small group and one to one sessions, six to seven days a week. Over the years he has tried to limit the amount of hands on coaching because of the wear and tear on his body, in particular his back, knees and shoulders, but he prefers the hands on approach to coaching and finds it difficult not to overdo things (Field notes, November 2010). Coaching often involves doing moves and drills with the participants: showing them how to grapple, wrestle, submit and strike. As I have discussed in detail in Chapters 5 and 6, coaching also involves allowing the practitioners to explore movement skills with their coach as well as their training partner. The coaches also did pad- and shield-work with participants, which allowed them to learn and practice different striking skills for MMA. This meant that the coaches were subjected to repeated impact despite the pads and shields taking

the edge off. This was not without consequence and at times resulted in injuries (Field notes, January 2011). Matthew's experiences resonated with the accounts of all the coaches involved in this study

On another occasion, I was sitting down and chatting to Keith, the recreational group's coach, in the gym between training sessions and he told me about another aspect of the coaches' injury experiences. He informed me that sometimes in training things go wrong and that, coaches can equally get injured as a result. 'Sometimes because you have more experience you can pick it up when things go wrong or you realise what they're doing could cause injury to them and kind of control their movement to protect them. But then that might put strain on you or cause injury, it's just part of the process and injuries happen' (Field notes, December 2011). Like pain, risk of injury is part and parcel of MMA and coaches' injury experiences are as relevant for understanding ways of knowing injury as the practitioners'. However in the literature on sport and injury, coaches' injury experiences have received very limited attention. The focus has predominantly been on the coaches' role and influence in the practitioners' injury experiences (Hughes and Coakley, 1991; Burke, 2001).

In the Warriors gym, all three coaches – Jake, Mike and Tom – are also active fighters alongside their coaching duties. In addition to coaching practices they also engaged in their own fight training. Jake and Mike told me about some of the injuries they had experienced. Jake has been involved in combat sports since his early teens and is no stranger to injury. He tells me about the most severe injury he has experienced, a broken elbow, and explains how it all happened:

"It was during heavy sparring when a heavy kick hit my elbow, right on the tip of the elbow, and smashed it when the other guys' shin hit it. I broke the radial head [this is the head of the radial bone which, together with the ulna, forms the lower arm and is a part of the elbow joint. The tip of the elbow is in fact the head of the radius. The fact that the break was on the head of the bone means it will affect the function of the join this bone forms with other bones of the lower and upper arm.]"(Jake: Interview transcript, p.8/15th June 2011)

The sparring stopped immediately and Jake, whose arm was swelling up by the minute and he could not move it properly, had to go to A&E to get his arm X-rayed and set in a cast. In addition to this break, he has broken his ribs multiple times as a result of kicks and knee strikes, and torn the intercostals, which is the soft tissue in between each rib.

Mike, the coach and owner of the Warriors Gym has been involved in martial arts since he was 14. He is a professional Thai boxing fighter with three recent MMA fights under his belt. His injury, the most serious he had experienced, shaped his choice to pursue a career in coaching combat sports:

"Things were going well at the gym I was training at and fighting from at the time. I was training well and I was fighting well until I had a fight up in Scotland and got my jaw broke in two places in the third round. He was a well-ranked fighter who flew in from Thailand. He weighed in heavy, but I was fighting well and winning the fight. Then he hit me with a spinning elbow, he had a lot of experience and he was watching me really. I broke my jaw in two places. After that I had planned to go to Thailand to fight and train for six months, so I would find out how good I could do. I really thought I could do well, but obviously that put a stop to those plans, but I went anyway. That gave me a lot of time to think what I wanted to do and I was getting to the age where I had to start thinking of actually getting a, well, making a living." (Mike: Interview transcript, p. $3/18^{th}$ April 2011)

This severe disruption to practice did not discourage Mike from the career of a fighter and a coach, but rather what emerged was the decision to commit his life to practicing, competing and teaching martial arts, Thai boxing and MMA. These accounts share similarities with some of the participants in Spencers' study (2012a; 2012b), for whom injury resulted in reorientation of the body's potentialities. The time he had spent recovering from the serious injury and his time spent in Thailand enabled him to have some time out to think about what he wanted to do. An old friend of Mike's who coached strength and conditioning at the gym that Mike had trained in and fought from had returned from a stint in the Royal Marines. The two got together and discussed ideas of opening a gym of their own, which they also mentioned to two other friends who had clubs elsewhere in the city. "It made sense for all of us to come together at our own gym and that's what we did," Mike told me (Interview transcript, p 4/18th April 2011).

The MMA practitioners, both the fighters and recreational practitioners, also had experiences from a wide spectrum of injuries. During the fieldwork and conversations with participants I came across different kinds of bone injuries(including fractured and broken toes, ankles, legs, backs, fingers, wrists, arms, necks), different kinds of soft

tissue damage and muscular sprains, strains and tears, and head injuries (e.g. concussion), as well as black eyes, bruises, cuts and cauliflower ears. Predominantly, the injuries occurred during the time spent in the gym in training rather than in competition because the time spent in competition was minimal compared to the time in the gym: fighters would only compete a couple times a year. I only witnessed one of the fighters actually get injured in the cage as a result of an arm bar, which resulted in a shoulder injury. Therefore, many of the injury experiences I discuss here took place in the gym. This highlights the limitation of the existing medical studies of injury in MMA, as they fail to address injuries that are frequently incurred in training rather than those that occur during competition. Jake, coach and fighter from the Warriors gym, whose injury experiences I have introduced in the paragraphs above commented on the topic during an interview:

'Even with me fighting throughout my learning and coaching career, I've received more injuries training, actually worse injuries, than when I've been fighting. I don't know, maybe it's about the amount, the volume, you do because it's probably like if you're training for a fight. It's the amount of intensity and rounds you do in preparation for that fight. That's when you start picking up injuries.' (Jake: Interview transcript, p. 10/15th June 2011)

The other fighters from the Warriors Gym had incurred a range of injuries through training, Andy, a student and sports coach, had been lightly concussed in competition, and had a few other minor problems, such as a sprained knee and cuts. Rick, a competitive MMA practitioner in the Wolf Pack Gym who works for an energy company, as a lower tier team manager for a group of younger and less experienced employees, has also experienced his fair share of injuries. For him MMA is a hobby, "a serious hobby though", he adds. He has broken his hand punching and, just recently, twisted his ankle when sparring, along with other on-going issues with his back and neck. All of the practitioners I spoke to had had to deal with these kinds of injuries so they were common consequences of practice. Martin and Rick had also had neck injuries, in both cases as a result of a choke. Rick also told me about other kinds of injuries he had experienced:

"Aside from that, there are the cuts and bruises as well and black eyes, and my nose has something wrong with it and it has burst god knows how many times. I'm not sure but I think it may have got broke in one of my last fights and I just didn't go to hospital with it" (Rick: Interview transcript, p.8/24th June 2011).

However, not everyone had a list of injuries as long as this. Noel, who is a novice fighter, has only recently had his first competitive experience and is part of the group of roughly ten to twelve regular practitioners who train at the Wolf Pack Gym. So far Noel had not experienced anything he would classify to be a major injury, which for most practitioners seemed to be signified by broken bones or severe soft tissue injuries. He mentions some sprains and strains when he has hurt his arms as a result of arm bars, other locks and hitting:

"I haven't had anything serious so far, I mean the other week I got a cut on the eye, well just above the eye, which I had to go and get looked at [at a Walk-in Centre] but there was nothing else really to worry about, I haven't had anything I've really had to worry about" (Noel: Interview transcript, p.12/18th February 2011).

Others had experienced more problematic injuries that had long term consequences, which I discuss further in the second part of this chapter. Michael is the assistant coach and part of the core group of practitioners in the Wolf Pack Gym. His knee injury occurred around three years ago, during the fieldwork, his training was disrupted by the worsening of his knee injury, which he tells me was caused by the breakdown of the structures and the major ligaments holding his knee joint together. Michael's experiences highlight one of the characteristics of injury: the limitation in body function and the disruption to participation in the embodied practice of MMA over a long period of time. The story of his injury began on a day just like any other, during a training session roughly three and a half years ago, as Michael was training with two of his friends who are fighters. They were doing some stand up kicking drills and this is what happened next:

'I just took the weight off the other leg for a kick and it just snapped: the ACL that is the anterior cruciate ligament, which holds the knee together to enable movement whilst providing stability and support. I dislocated my knee and strained all the ligaments around really. I also chipped my tibia and fibula bones, and instead of going [straight] to hospital I didn't go until the day after.' (Michael: Interview transcript, p. 5/ 27th May 2011)

Michael stated that this delay in treatment did not do the injured leg any good. This did not happen at the end of the session, and he only sought treatment the day after when he could not walk properly and he was unable to put any weight on the leg. It has been a long time since, but the immediacy of the injury is still vivid in his mind. He has lived and trained with it for almost four years.

The recreational practitioners, who trained together with the competitive fighters during the classes, had also incurred a range of injuries. Harry, a 41 year old civil servant and business analyst with a postgraduate degree in Chemistry, has been involved in martial arts training for about 15 years. He is a committed, but recreationally-oriented, practitioner who trains five to six times a week with the recreational group, coached by Keith. Harry's experiences of injury and the different, yet related, kinds of pain have both parallels and differences when compared to those of the fighters and coaches. As we sat on the mats during a training session, he explained how the problem with his shoulder started. Harry placed his hand on the mat but his body got pushed back by the movement of his training partner, Joe, and before he had the opportunity to move his hand, it jarred his shoulder and he could feel something was not right. At the time it did not feel so bad, so he continued training and it was not until the next day that his shoulder stiffened up, limiting movement and making it painful. One of the fighters, Peter, had another kind of injury experience, which further illustrates how injuries are not always incurred suddenly, as the coaches' accounts have already indicated. Some injuries were a result of an accumulative effect from training. Over the past few months Peter had been having problems with his ear; it had begun to develop into so-called cauliflower ear. The cartilage in his ear had been damaged as a result of pressure in grappling training, the spaces between the damaged cartilage gradually began to fill with fluid and eventually his ear was painful to touch and so full of fluid that it was ready to burst. Even after the ear was drained in hospital, with the same problem because once the cartilage is damage it does not fully repair so Peter had to start wearing an ear protector also used by rugby players he tells me, to stop the fluid building up again (Field notes, March 2011; Peter: Interview Transcript, 20 March 2011).

As a practitioner myself, I was no stranger to injuries either and towards the end of the fieldwork period I began to have on-going problems with pain at the top of my shin bone, close to the knee joint. Initially I did not pay much attention to it because I thought it was merely my legs getting conditioned in response to the increase in intensity in my training. However, the pain became constant and more intense, making me want to keep the weight off my leg. I had to seriously consider the possibility of

having some kind of injury. Eventually I was in agony when walking, running, kicking, jumping, and the pain was there even when sitting down. It was no one particular occasion that I incurred the injury, but a gradual process over time. This illustrates the diverse ways incurring and dealing with existing injuries was experienced by the non-elite level MMA coaches and practitioners in this study.

This first part of this chapter has offered some examples of MMA practitioners' and coaches' injury experiences in the Wolf Pack and Warriors Gyms. As a result of incurring injuries, the practitioners had to develop ways of negotiating the consequences and potential disruption to training, and managing their injuries in practice. The rest of this chapter will follow up some of the injury experiences introduced here and offer an analysis and discussion of how ways of knowing injury were developed through experience of incurring injuries, experiences of existing injuries, and injury talk/stories. This will be considered in an active relation to the context of the MMA gym, in the wider context of MMA, and with reference to gender and class, which emerged as relevant to the MMA coaches' and practitioners' experiences and practices around injury.

LEARNING TO DEAL WITH INJURIES

The narratives so far have illustrated the myriad of ways injuries come about and are managed by competitive and recreational MMA practitioners and coaches. The range of injuries that I encountered during my fieldwork was wide. The remainder of this chapter concentrates on the analysis of how ways of knowing injury and risk are developed and the interplay of experience, stories and situated influences that was constitutive of ways practitioners learned to deal with the uncertainty, the characteristic of many injury experiences, negotiating and managing injuries and treatment in practice. I utilise analytical resources from Frank (1995; 2010), which enable me to analyse ways in which experientially grounded injury stories of the bodies in the 'unmaking' are generative of ways of knowing injury in MMA. In particular, I consider what is at stake with injury in a non-elite sporting environment, in terms of the failure to perform successful masculinity. Spencer (2012a) has examined this in the context of competitive MMA fighters. The discussion here will illustrate how this is equally relevant to nonelite level MMA practitioners, coaches, recreational practitioners and fighters alike. I also examine how the stories constitutive of ways of knowing injury in MMA inform ways in which the practitioners come to adopt training whilst injured as a practical

approach to dealing with many injuries to avoid complete disruption to their training and their practitioner identity.

Next I consider how gendered meanings and the sport ethic informed the ways in which practitioners made sense of the visible signs of injury; how meanings of the marks on the practitioners' bodies came to be understood as war wounds, and how these meanings were resisted and challenged by some practitioners. I then discuss the practitioners' and coaches' negotiations of risk and how, at times contradictory, approaches to risk were developed. I also discuss the situated influences in terms of gender and social class and highlight some preliminary thoughts on the need to examine risk as a classed concept in the context of sport, physical culture and injury, which the data pointed to. As I have discussed in Chapter 2, gender has been widely examined in the context of sports injury, but there are few studies that consider class in this context. Finally, throughout this chapter, I illustrate the important role everyday injury stories play in how ways of knowing injury are developed. I begin by how the practitioners and coaches described their experiences of being injured.

Jake, whose experiences I have introduced in the first part of this chapter, told me what was at stake for him:

"You just love doing the sport and don't want to be away from it. So, as soon as you start missing it, being away from it, me personally, I get myself a bit down and start feeling depressed and that, when I'm not training. So, you know, more so because I've done it for so long, it's my way of life. Probably because of that I tend to train through injuries more than I should," (Jake: Interview transcript, p. 14/15th June 2011).

Recreational practitioner, Harry's injury experiences also were also quite similar to those of many fighters and coaches at the Scrap Pack and Warriors Gyms:

"I suppose it's the fear that if you're not around, people wonder about you and how committed you are. Then again, I've been doing it long enough to know that it's just because it's something that I want to do and I put pressure on myself more than anyone else. Rather than just take your time to make sure you get better first, I actually get sort of withdrawal symptoms if I don't go and train. So, I do really miss it if I can't train" (Harry: Interview transcript, p 16/10th November 2010).

As these examples show, it is not only about what others think, it is about the significance and meaning the practice has for the practitioners and their identity. This is

in line with existing research in other sporting context where absence due to injury can result in a loss of practitioner identity, sense of belonging to the group and the associated social relationships, and friendships among the practitioners (Wainwright *et al.*, 2005; Robinson, 2008; Spencer, 2012a). Harry's story demonstrates the importance of the non-material consequences of injury on a non-elite level, which are nonetheless highly significant for the practitioners. This was also illustrated by Michael's experiences of his severe, long term knee injury and his decision to train with it and through it, fully aware of the risks he was taking. He tells me about the six months he was off work and training:

"It's not very nice at the time, you just get so bored and frustrated, it's like well everyone else is doing that [training MMA] and I can't. It's like I have to do something even if it's, I mean just going for a power walk using one leg, on my crutches. But for me it was either just to do something or be bored really. Because the more time I sat in the house, the more I thought, [pauses], I mean I hate it! I think you'll get a bit depressed really" (Michael: Interview transcript, p 6/27th May 2011).

The consequences, or potential consequences, of the injury, namely partial or complete disruption to practice, were one of the main concerns for the MMA practitioners. Ultimately, the consequence of injury affects the practitioners' and coaches' identities. In a sporting environment, the practitioners' identity is embodied and being able to take part in training or coaching is an important part of their subjectivity. Consequently, as the thesis so far has demonstrated, for these men, in the context of the MMA gym, their gendered identities are inextricably connected to their bodies, and validated through participation. Connell (1995) has observed how in sporting contexts masculinity is thought to proceed from men's bodies, which consequently means this gendered identity is vulnerable when the bodily involvement cannot be maintained. This was illustrated by the practitioners' and coaches' accounts of injuries that had resulted in partial of complete disruption to their training. The existing literature on the topic has also demonstrated how injuries can significantly disrupt practitioner identities (Wainwright and Turner, 2004). In the context of MMA fighters Spencer (2012b, p. 107) found that injury disrupted their ability to successfully perform normative masculinity which relied on maintenance of 'a body active in fighting'. .Furthermore, the consequences of injury to the practitioners' identity at times result in a spoiled identity or stigma (Goffman, 1963) because injuries often indicate vulnerability or weakness in an environment where toughness, persistence and perseverance are highly valued, as discussed in Chapter 6.

As a result, the practitioners developed a strong impetus to ignore or at least partially ignore injuries and continue to practice, which was particularly common with those who had chronic or reoccurring, more long-term injuries. In line with Bale's (2006) observation of long distance runners and injury, where 'sitting in the sidelines just would not do', in the Wolf Pack and Warriors gyms this was also the case for majority of the MMA practitioners and coaches. For the coaches, however, the stakes also entailed a threat to their livelihood (Field notes, April 2011). As a result, and with consideration to the embodied nature of MMA pedagogies discussed in Chapters 6 and 7, all the coaches told me that they frequently continued to work through injuries, unless it was absolutely necessary not to do so, because their income was dependent on it. For example, Luke had to cancel his classes, small group and one to one training sessions when he was suffering from a back spasm that was particularly persistent. The practitioners came to the sessions to be coached by him, but he was unable to coach them and so it meant a loss of income for him.

In elite environments, the reasons for playing while injured or hurt have been well documented and are connected to the career and financial rewards to be gained from continued participation (Howe, 2004). Howe (2004) has argued that the consequences of injury, and subsequently the stakes, are much higher in elite level or professional sport because the injury can end a sporting career and loss of earnings. Wainwright and Turner (2004) have also found this to be the case in the context of professional ballet, whilst Smith and Sparkes (2005) have examined the consequences of life-changing spinal cord injury to rugby practitioners' identities and narratives. I have outlined the directions within the existing literature in Chapter 3. Less is known about injuries in non-elite training sporting environments, and Howe (2004) appears to indicate that elite sport is a more important focus regarding injury research. Allen-Collinson (2010) is one of the few who has examined injury in a non-elite sporting environment in the context of running. However, as the practitioners' accounts above and the remainder of the chapter continue to demonstrate, there is great deal at stake for the non-elite when it comes to injury. Thus, in this chapter I argue that researchers should also systematically consider the dynamics of injury in non-elite environments, where the stakes with injury may be different to elite environments, but are nonetheless of paramount importance to

those involved. Furthermore, proportionally, the professional sports men and women are a minority in comparison to the general population taking part in a wide range of sports and physical activities. Literature on injury in sport has recently begun to call attention to the costs of sports injuries (White, 2001). However the research on the non-elite practitioners who often have to seek treatment from the National Health Service or privately funded sports therapies or medical treatment to date is limited. Therefore, practitioners' negotiations the costs involved with non-elite sports injury treatment and how the socio-economic positioning of the practitioners' shapes these experiences can offer a fruitful avenue for further research. I return to discuss this point further in the final part of this chapter.

KNOWING HOW TO TRAIN WHILST INJURED IN PRACTICE: EXPERIENCE AND STORIES

It was characteristic for the majority of the coaches and practitioners to train training whilst injured in order to avoid limitation or complete disruption to training. Therefore, developing practical strategies for training whilst injured was fundamentally important to ways of knowing injury. Experience was a crucial pathway for MMA practitioners to learn how to adapt their training so that they could avoid complete disruption to practice. This has been already illustrated in some of the practitioners' as well as the coaches' injury experiences I have included in this chapter so far, and the practitioners talked about it during interviews and field conversations:

"So you try and carry on and do it and I don't know, but you just try to adapt and just do what you can but try and ease off that injury even though at the back of your brain you know that the best way to heal that injury is to completely rest" (Andy: Interview transcript, p. 8).

On another occasion, I sit talking to Michael, whose long term knee injury I introduced earlier, after a training session, he tells me how he has had to adapt his training and keep off anything that would put too much pressure on his knee. The intensity of sparring with the fighter lads was something he had to steer clear of, which led him to become more involved in the coaching side of practice (Field notes, June 2011).

The key focus for practitioners and coaches was to learn from their injury experiences to understand not just the basic mechanics of their specific injury but to learn to relate the limitations to practice caused by the injury to MMA practice: how it affected their practice and whether they could continue training, even in a slightly limited capacity,

rather than having to stop completely. These experiences were an ongoing source of stories which were shared and exchanged during and outside training with other practitioners and coaches. This demonstrates the social nature of stories as theorised by Frank (1995, p.17) who notes that 'storytelling is for an other just as much as it for the self. Experience, guided by the logic of trial and error, guided the process of learning to continuously adapt to their training whilst injured. Jake noted some of the practical consequences of injuries, which was dependent on the severity and nature of the injury and resulted in adaptations to practice in a variety of ways. Michael explained that it was a case of trial and error, learning from each training session whether the adaptations were suitable or not, emphasising that: "That's it, one time you're fine and another time it's not" (Interview transcript, p. 7/27 May 2011). During fieldwork I had to negotiate an injury of my lower back and the side of one leg. Over a period of time I had shooting pain in my lower back that then disappeared, only to come back with a vengeance. As I tried to adapt the intensity of training I got it wrong more than once, and I had to limit my training to light drills and technical training, avoiding kicks. During training sessions I frequently told training partners and coaches the 'story' of my injury, accompanied by story of how I had adapted training previously to accommodate this. Along the way I developed ways of modifying training and as the injury persisted over a few months, the stories of negotiating it also evolved, I incorporated what I learnt from others along the way. Again this echoes the experientially based storied, experientially grounded strategy of trial and error that all of the practitioners and coaches utilised to a greater or lesser degree.

Fellow practitioners and coaches were equally central to training and the adapting of training whilst injured. The practitioners did not just share their injury stories with me during interviews and conversations for the purposes of this project, they told the stories of their injuries and their implications frequently in their daily interactions in the gym. Here I analytically treat the stories themselves as 'actors' (Frank, 2010, p. 13), that is focusing on 'what the stories do rather than understanding the story as a portrayal into the mind of a storyteller'. Thus, I argue what these stories do is to be a constituent in the process of developing ways of knowing injury amongst MMA practitioners and coaches, ways in which I will discuss and illustrate in the following paragraphs. It also involved analysis of a sort of their own stories, and stories heard from other practitioners and coaches, which fed into how they adapted their stories of their injuries when training in co-operations with other practitioners. These analyses are illustrative of

the dialogical nature of storytelling that is central to Frank's (2010) socio-narratological approach which seeks to understand the role stories play in social life. The practitioners would incorporate what they learnt from others into their own stories in a very pragmatic fashion as they used stories to negotiate ways in training practices required adaptation due to injuries.

Frank's socio-narratology is also a useful approach here because, as he points out, approaching stories as actors highlights not only their role in construction of narrative identities (Lawler, 2008) but in making experiences, in this case of injury, social. This allows me to draw attention to the intersubjectivity and social nature of the process of developing experientially grounded, storied ways of knowing injury. These stories were no grand, life story narratives but rather everyday narratives that are not homogeneous and activities that were not always consistent (Ochs and Capps, 2001) that nonetheless were central to negotiating injuries in practice and developing ways of knowing. Most notably this included trying to find ways to avoid aspects of practice placing strain on the injured part of the body or reducing the intensity of activity to avoid exacerbating injury. On the other hand, some also continued to train without significant adaptations in cases where the injury did not cause limitation to function. These were strategies employed and shared by all of the participants and coaches.

The role of injury stories is illustrated well by an observation during a training session at the Warriors gym. They play an important, practical role in informing coaches of the need to adapt training. Warren had come back to training after a couple of days' rest having sprained his shoulder last week during the MMA class. Before we start training I catch him talking to Jake, the coach for the session, explaining to him what happened last week when Tom was taking the training session. Jake asks him about how the past week has gone and how his shoulder feels at the moment, reassuring Warren that they can work around the injury, but also reminding him that he might need to sit out from some work that he has planned for tonight's session. Some of the others overhear the conversation and ask Warren about what happened; at that point Andy, who was training with Warren at the time, joins in and begins to explain the events from his point of view (Field notes, February 2011).

Once the session starts and everyone is busy rehearing the combination of strikes using one-to-one drills and Thai-pads. Jake goes to work with Warren, Andy and Darren, because Warren is struggling with the punches due to his shoulder. Warren explains

how his shoulder is stopping him from throwing the punches properly because of the strain it puts on the already sprained shoulder and how he has got ideas from his training partners and coaches in terms of what to avoid and alternately to focus on. Jake listens and asks the guys to work differently with Warren, working on different kick combinations and make sure he is not holding the pads because of the pressure it would put on his shoulder (Field notes, February 2010). This example is only one of many that illustrate the role of stories in the daily practices that allowed practitioners and coaches to develop ways of knowing injury in terms of developing practical adaptations that would enable them to continue training whilst injured.

The above also further demonstrates the inherently intersubjective nature of experience and of storytelling; the central pathways to knowing injury. Kotarba (2006) has noted how 'injuries occur on the body, but their appearance, experience and management is mediated by social relations'. This was also characteristic to the ways MMA practitioners and coaches developed practical strategies of dealing with injuries. It was not just the practitioner who had an injury that had to understand its implications and the above example from the Warriors gym illustrates; it is also about how the practitioners informed coaches and training partners about their injuries. Control, trust and care between practitioners in training are characteristic to how ways of knowing skill and pain are developed. Thus it is necessary for those who are the training partners of those practitioners who had were injured, to develop and understanding of their injuries and the implications to practice, as I have discussed earlier to be involved in the process of storytelling.

Ways of knowing injury in MMA are also inherently intersubjective and come into being only in relation to the training partners' body in motion. This has implications to the ways of knowing injury where the training partners had to develop an understanding and appreciation of the potential injuries of their fellow practitioners. It precipitated sharing of injury experiences in the form of everyday stories, when the injuries had consequence to practice. Sometimes it was a case of discovering together what was possible and where training needed to be adapted, and communication between training partners was crucial in this regard. The nature of the MMA practice underscores the role of stories, experiences and intersubjectivity in developing ways of negotiating injury experiences in practice. Furthermore the stories described in this section, and the way in which they were utilised by practitioners and coaches, are illustrative of Frank's (1995) concept of the 'communicative body' expressed through quest stories. The

communicative body, that accepts the contingency that is characteristic to illness or in this case injury and seeks to find something productive in this situation in terms of ways of overcoming or adapting to it. The stories I have discussed here were not so much focused on lamenting or despairing over the injury, and the disparity between the ideal bodily performance and the actual limited potentiality of the body which Spencer (2012a; 2012b) examines in his work. The role and the focus the practitioners stories was pragmatict: making the best out of a difficult situation, overcoming the injury as much as possible

The coaches had all experienced injuries themselves, but they also had experience of dealing with the injuries of practitioners and learning from them. These experiences and stories they shared with practitioners' of their experiences of injury, were important constituents in the process of developing ways of knowing injury, and how this was part of the coaches' embodied pedagogies of MMA. Jake also makes another important point on the value of experience in injuries and learning from experience because you learn each time you are injured. He adds:

"I think as well, if you didn't have an understanding of your body you could cause people damage in your class with what you're teaching them and doing with them. Especially with me being a coach, doing a lot of the conditioning side of it for people. So I could be teaching people exercises that could hurt them if I didn't know how the body and its mechanics worked. So yeah, I've kind of self taught and through talking to people. I'm just like again, always just anybody that's got anything to do with the knowledge about the body and exercise, and then I'm keen to listen." (Jake: Interview transcript, p. 14/15th June 2011)

This further underscores the social constitution of ways of knowing sports injury amongst practitioners in this study and the different aspects of the role of storytelling in this process. The recreational practitioners and fighter made decisions to train or not train in negotiations with other practitioners and coaches demonstrating the role injury stories play in developing ways of knowing injury amongst practitioners in this study. Frank's (2010, p.2) work is particularly pertinent as he emphasises how 'role of stories is to inform human life', they make life social as these injury stories are as central to the practitioners who have an injury as well as the coaches and training partners who train with them. They play a fundamental role in not only informing others of the limitations resulting from the injuries but in negotiating ways around them. In the case of MMA training is always a two way process between practitioners working together, as their

actions and motion is always interrelated as I have illustrated in Chapter 5. Shared stories continuously evolve as practitioners and coaches incorporate what they have learnt from others into their stories, in an ongoing process of storytelling, listening, analysis and re-telling.

However, knowing that you are injured, and in particular knowing the exact nature of the injury, was often not that straightforward. Consequently, the practitioners' and coaches' injury experiences were often characterised by uncertainty. These experiences illustrate what I call "the grey area". Frank's concept of the 'disciplined body' is particularly poignant in understanding the role of injury stories in these situations. This is because these stories were central to the ways in which practitioners sought to negotiate this uncertainty and featured discussing treatment and rehabilitation regimes that offered an anchor during a time when their participant identity was under threat. Some of the injuries practitioners had to deal with, such as those occurring within the internal structures of the body, requiring no surgical intervention, were not necessarily visible to the naked eye, and some were accompanied by different kinds of pain. However, the main concern of the participants regarding injuries was the potential and actual limitation to function and, therefore, the disruption to training and coaching practice.

This illustrates how pain was not always a signifier of injury, as I have also demonstrated in the previous chapter on ways of knowing pain. Although the coaches were not medically trained, as I have noted above, over the years the coaches have developed an understanding of the kinds of injuries that occur in MMA and the practitioners often came to the coaches for advice, sharing their injury experiences and stories with coaches to try and work out together the source of the problem and the best course of action. In here one can observe aspects of both the disciplined and communicative body, demonstrating the sometimes overlapping nature of these analytical categories (Frank, 1995). In this type of non-elite sporting context, where the practitioners did not have structured injury support, diagnostics and treatment available the practitioners often turned to coaches for advice and support. Kotarba (2001) who has examined the professional sport and healthcare has illustrated that there is great variance in the health care and injury care available to athletes and is determined by the value of the athlete and the sport. This highlights the importance of examining injury treatment experiences and encounters in a variety of contexts and beyond elite-sport.

Experientially grounded stories also played a role in negotiating treatment together with other practitioners and coaches. The focus was exchanging stories of different alternative training approaches, regimes and ways of getting around or overcoming the uncertainty of a potential or actual injury. Due to the non-elite nature of the setting the practitioners did not have the kind of diagnostic and treatment resources at their disposal as professional, elite level sporting practitioners, whose experiences have been most widely researched in the existing literature on sporting injuries (Howe, 2004). Therefore, practitioners relied on the National Health Service for treatment of both acute and non-acute injuries, unless they could afford private treatment or sports physiotherapy. As a result, the practitioners' socio-economic background shaped the ways they negotiated injuries. Although class is by no means reducible to a level of income, this points to the relevance of class³⁷ to research on sport injuries. It also connects an aspect of analysis with regards to practitioners' negotiations of risk, which I discuss in the final part of this chapter. The experiences of coaches, fighters and recreational practitioners, illustrate how their own previous injury experience together with shared ways of knowing injury informed the manner in which they sought treatment. Peter, for example, had treatment for his cauliflower ear. He went to get it treated at a walk-in centre where the nurse used a syringe to drain the fluid, but the problem reoccurred and the next day he was referred to a specialist. The staff that treated him was used to treating this kind of injury, which he was told, is most common in rugby players who they were used to treating (Interview Transcript, p. 7/25th May 2011). What urged Peter to seek treatment was when he learnt the more serious consequences that could have resulted from his injury. Some more experienced practitioners had told him that there is a risk of brain damage if the pressure builds up in the ear canal, as a result of the swelling, if not drained.

Another example is fighter Martin, who tends to seek treatment from medical practitioners only when the injuries are serious, he explains:

'I mean the length of time that I've trained now that I've got to know my own body quite well. I generally know what's wrong with it when something goes wrong and I know how to take care

-

³⁷ In sociology there is no agreement on a unified definition of class (Bottero, 2004). I want to emphasise here that the understanding of class, employed in this thesis is one that extends beyond categorisation of social positions of individuals based on gradations of material conditions. This appreciation draws from Skeggs (2004, p. 1)) in that class is 'an amalgam of features of a culture that are read onto bodies as personal dispositions, which themselves have been generated via systems of inscription in the first place'. This approach also acknowledges how class is something that is in continual production.

of it myself. So because of that, well I wouldn't necessarily call it self-treatment, but I know what to do. Certainly if it's a serious break or something like that then I would go in. Even broken ribs and stuff like that, I don't even go to the hospital anymore because I know what it is (Martin: Interview transcript, p. 14)

Not all, especially soft tissue and joint injuries were as straightforward in terms of finding treatment. Luke, one of the coaches, expressed similar views where injuries that may have caused significant disruption to training but were not urgent in requiring A & E treatment. The practitioners' fighters, coaches and recreational practitioners face a long waiting list for diagnosis and treatment. The problem the practitioner faces is not being able to get diagnosis and treatment when they need it, an issue I had also experienced on more than few occasions since I started training in MMA. In part, this resulted in practitioners training injured. General practice medical treatment was not equipped to deal with their injuries and in their situation stopping practice completely and for good was not an option. This meant most of the practitioners kept training around their injuries. This illustrates the strength of the influence that values of normative masculinity (Connell, 1995; Spencer, 2012a; 2012b) and the paradoxical relationship between bodies, masculinities and selves in sport, where practitioners were often expected to ignore long terms costs associated with injuries. Even in the non-elite settings examined in this study, the practitioners sought to adapt and continue training rather than stop completely. Often they sought to manage (chronic) injuries and associated pain with remedial therapies such as massage and using a chiropractor or osteopath to avoid the injuries re-occurring or becoming chronic. Cuts, however, were usually stapled or glued together to enable them to heal quickly and limit disruption to training and competition.

Practitioners and coaches share information about places to go and treatments to get through the gym grapevine. The coaches were a source of information for the practitioners. For example, Noel, Peter and Martin explained that Matthew, their coach, gives them advice on what to tell the medical staff in order to get the suitable treatment, especially if they are due to fight soon. An open cut would prevent the fighter from competing, but so would the staples placed across the cut to hold it together. If this happened, Matthew advised them to tell the doctor treating them about their situation and request for glue to be used instead of the staples or stitches, which enables them to compete. Shared stories on how to negotiate treatment with medical practitioners were

important in informing practitioners on how to negotiate injury management, highlighting the ways stories are constitutive of ways of knowing injury.

Furthermore, Frank (2010) also points out how the social nature of stories, illustrated in this chapter in relation to development of ways of knowing injury, is central to the relationships that are forged through shared stories. I have discussed in Chapter 6 in relation to ways of knowing pain how the practitioners felt a sense of commonality and belonging to the community of MMA practitioners as a result of shared experiences and practices around pain in MMA. This was also case with injury and another aspect to the role stories played was illustrated in the understanding and support regarding injury management and treatment these practitioners got from fellow practitioners and coaches. As the examples discussed here demonstrate, the importance of this is heightened in a non-elite sporting environment, due to the absence of professional treatment resources and support structures available for many professional athletes.

As the previous paragraphs have illustrated, injuries were not always visible. However, sometimes the practice leaves the body visibly broken, bleeding, cut and bruised. I stayed back to watch the fighters do some sparring after the main part of the one of the MMA classes at the Warriors Gym had finished. The plan was to do a few rounds of relatively intense sparring because Owen, one of the fighters, was preparing for his next competition. He stayed in the cage at the end of each two-minute round, but his sparring partners changed. This is what the practitioners call 'the shark tank'. Halfway through the fourth and final round, Owen slips a lead jab only to find his face connecting with James's straight cross and, as the punch lands grazing across his eye, a small cut opens up just above his eyebrow. They stop sparring and Tom has a look at the cut, putting some Vaseline on it to stop the blood getting into his eye. Owen seems more annoyed than hurt because he has scar tissue that is a result of a previous cut above his eyebrow and the punch has opened it up again (Field notes, May 2011). Frequently these kinds of injuries left marks on the practitioners' bodies: legs are bruised as a result of being kicked, eyes blackened as a result of punches. Furthermore, in training and in sparring in particular, cuts to the face and bleeding noses are frequent and often leave permanent scars and marks on the practitioners' faces. Some of the practitioners and coaches whose injuries had required a surgical intervention had scars as reminder. When Michael was telling me about his knee surgery, he pointed to the two small scars on either side of his knee that are a permanent reminder of the injury, but also a signifier of his injury experience.

For the most part, dealing with the visible marks of injury are in line with Charlesworth and Young's (2006) argument that for men these marks are often understood as "war wounds": signs of commitment, experience and practitioner status; whereas, female sporting practitioners are sometimes in conflict with feminine identities and marks of injury are not seen as desirable. This illustrates a paradox that characterises both ways of knowing pain and injury: injury experiences and visible marks on left on practitioners' bodies as a result were constitutive of and crucial to consolidating practitioner identity, yet at the same time the negative consequence of injuries resulting in disruption or limitation to practice had the potential to spoil practitioner identity. Injury stories that practitioners share with each other play a role in developing this understanding of injuries as signifiers of commitment, experience and status, an understanding that was also closely tied to the particular context of the gym and informed the wider context of the sport. In this manner, practitioners who had been injured would share the story of their scars or bruises with their fellow practitioners who may have not been there when it happened. The stories themselves played a role in attributing value to the "war wounds" that was often specific to the environment of the MMA gym, as the next example will illustrate.

The meanings practitioners came to attribute to visible reminders of injury were not always homogeneous, and others found them to be in conflict with their life outside the gym. Rick's experiences provide an example of the point regarding variation in meanings, where these visible marks of practice and injury were very undesirable as they clashed with his professional identity at work. Rick tells me about his approach to injuries, where the above contradictions emerge:

"Yeah, of course it [badly getting injured or damaged] could be literally a career ending mistake for me really, even if I am doing what I am doing now as a hobby. Since I've competed and held down a job down as a manager in a company, and when I go in with black eyes it's really bad you know. People don't know at work, I don't tell them what I do. It's almost like that guy going to fight club in that film, that's almost how I live my life. I don't want to tell people because I feel I would get judged [...] If I tell people that I'm a fighter, they're straight away going to think, 'oh, he's aggressive and a street fighter walking around trying to start fights'. The thing is I would like to get across to people at work is that I don't have street fights. But I genuinely think it's not about being macho, about being hard." (Rick: Interview transcript, p.6)

So, not everyone considered the marks of injury as a positive or as a status symbol, which was highlighted by the particular context of this study. For Rick, knowing injury involved developing strategies that would minimise the risk of visible injuries such as black eyes and cuts. In his case he chose to use a head-guard during sparring to protect his face from cuts and bruises. The non-elite nature of the context meant that the elite level of MMA was not the only context shaping the practitioners' injury experiences and ways of knowing injury and at times they could be contradictory, as illustrated by Ricks' case above. This highlights the need to avoid generalisations in the study of gendered injury experiences in sport and illustrates the complexity of the ways in which MMA practitioners negotiated injury experiences.

WAYS OF KNOWING INJURY-RELATED RISK – SITUATED NEGOTIATIONS OF INJURY EXPERIENCES

Finally, the MMA coaches' and practitioners' stories and the analysis of my interview and field data highlighted another crucial constituent in the development of ways of knowing injury: negotiating injury-related risk. The understanding of risk follows Bennett and Silva (2004) who argue that in contemporary society there is a contradictory drive towards risk and choice and that these complex dynamics can be best observed in the everyday. The analysis draws attention to how negotiations and meaning of risk are closely informed by not just the gender socialisation and the sport ethic, as suggested by Charlesworth and Young (2006) in a study that reflects the focus of much of the literature on sport and injury, as discussed in Chapter 2. Negotiations and meaning of risk are also shaped by other situated influences within and outside the space of the MMA gym. The non-elite, amateur nature of the practice drew attention to how these negotiations of risk were shaped by situated influences including employment, family, life course, gender and social class. The existing research has predominantly focused on elite sports environments and, as McCutcheon, Curtis and White (1997) have noted, despite widespread research on sport and injury and on sport and social class, the connections between sports injuries, risk and their distribution has received little attention. Here I explore the ways in which MMA practitioners and coaches negotiated injury-related risk and how these negotiations were informed by a range of contextual considerations and their injury experiences.

MMA was not a source of full time employment or income for any of the practitioners, competitive fighters or recreational practitioners in the Warriors or Wolf Pack Gyms.

They were either in full or part time employment or in education and the risk of injury could influence not just their practitioner identity but have significant consequences outside the confines of the gym. Harry, who is a recreational MMA practitioner and works full time as a business analyst, tells me about the difference between his approach to risk and training whilst injured and contrasts his experiences with those who are involved in MMA on elite or competitive level. He is prepared to train with and around an injury if he can, up to a point, which he thinks is not as far as the fighters' would perhaps be prepared to go as they are willing to take further risks in pursuit of a win. Harry explains the reasons behind his approach:

"If I'm injured, being able to work and adapt around the injury but not always push to the point of pain because, well I think that's a limited view. In the case of the fighters, it's pushing through that pain at that moment that [matters], whereas I'm looking for something for the rest of my life. Not just a sports career of ten to fifteen years, so I don't admire it to quite that extent" (Harry: Interview transcript, p.14/10th November 2010)).

It was the consequences, or the potential projected consequences, that shaped Harry's negotiations of risk and injury, and whether to train or not to train was the central question. Harry gives an example of the risk of obviously severe and permanent injury as a result of holding on for too long just to prove a point. It is the recreational nature of his participation and the practical consequences of this type of severe injury that shape his negotiation and decision-making.

"It's not like if I was an MMA fighter, then if my arm gets broken in the third round and I can still knock out an opponent you know for a hundred thousand pounds and that's my living, then I would try to do that. But I'm a civil servant, I'm not going to break my arm rolling out of a Kimura [shoulder lock] and by doing that, not be able to use my computer when I go to work then, because who's going to feed me. It's just the sheer practicality really". (Harry: Interview transcript, p.15/10th November 2010)

The competitive fighters had to contend with similar concerns when negotiating risk. Steve tells me about his approach to risk, and how it could have detrimental effects on his day job as a scaffolder (Field notes, October 2010). Noel, another fighter, explains how he evaluates the risks of participation and the effects it could have on his job outside the gym, which is quite physical and would potentially suffer as a result of

severe injury. Noel discloses he has taken out a fighters' insurance that he pays into monthly:

"That covers if anything happens, I mean the money. If I would break a finger it would cover me, sort of two weeks to three weeks but if it was a bit more serious, then you would obviously get more money, which would probably see us until I could get back to work. It's worth paying the extra insurance for that, especially with a family and kids and that (Interview Transcript, p. 12/18th February).

These practitioners have considered the consequences that injury may have on life outside the training environment. These accounts illustrate an important difference between elite and non-elite athletes. In the local gyms, in the absence of sufficient income from sport, the fighters and recreational practitioners have to tread a fine line balancing their sporting commitments and employment and family commitments. It also illustrated the dynamic between the culture of risk and the culture of caution, which is characterised by both risk taking on one hand and risk management and insurance to manage risks on the other (Donnelly, 2001). The fighters' insurance was a relatively new phenomenon and not all the fighters had insurance. However, this illustrates the dynamic between these two wider influences of risk and caution. All of the fighters I worked with during the fieldwork, had full time jobs, with the few exceptions where coaching had become a sufficient source of full time income.

With regards to risk, the data and accounts of some of the MMA practitioners also drew attention to the way risk was perceived to have a classed connotation in the context of certain sports, whether it reflected the reality of injuries and risk in the MMA gym or not. Jake and Mike both reflected on this topic during their interviews:

'Yeah well it's [injury] kind of part and parcel of the sport, but nobody could, I don't think, anybody that turns around and says well why you do something that's going to do such damage. Then I would ask them, 'how long have you played rugby for?' It's really kind of an upper class sport, rugby. So injuries that they go through are definitely no easier than the type of injuries that we go through. It's the same with any sport, even the noncontact sports, be it an athlete, a sprinter, for example. You know anything like that when you're using your body that you're going to come across injuries, it's inevitable. (Jake: Interview transcript, p.13/15th June 2011)'

'Yeah, obviously there are risks involved, but you weigh the risks, against what you want to do. I mean it's one of them, like the people who do bungee jumping, it's a risk but that's what they want to do. It's a sport and personally I think, comparable to other sports, the risks, are far less, you're in a far better position when you get hit, when you know what's coming, and can protect yourself from being hit, you've got lot less chance for being damaged. But in Rugby for example, if you get side tackled or tackled from the back, without realising it, there's much more of a risk of getting hit and hurt.' (Mike: Interview transcript, p.9)

These accounts drew attention to how practitioners considered how their injury-related risk taking was perceived and tended to resist the popular and medical critique of MMA as a damaging sport that should be banned. Jake is critical of the way MMA gets a bad press in terms of the risk of injury, not because there is an actual higher prevalence of injuries, but in his view because of classed connotations with certain sports. Furthermore, the practitioners' own injury experiences inform their critique, highlighting further the differences between the mediated and general publics' perception of the riskiness of the sport and the actual lived-realities of practitioners and coaches who are involved in the sport.

Critics outside the sports may argue that the practitioners are biased in their evaluations. Woodward (2007), for example, argues that this makes them complicit in the culture of aggressive masculinity. However, existing medical research reviewed by Bishop et al. (2013) reveals that many popular and commonly financially wealthy sports, including horse-riding, skiing, rugby, and football, result in high numbers of severe, and even lifechanging, injuries and in most cases are not subjected to the kind of outrage sparked initially, and still, by MMA. This is also supported by the Canadian study by McCutcheon, Curtis and White (1997) that found that due to higher participation in sport amongst the middle and upper classes, contra to many popular perceptions, the risk of injury was actually higher than for working class participants. Whereas, previous research on sport and social class had considered that due to the greater celebration of "hardness" in working class male culture there would be an overrepresentation of lower class male participants in sports that were associated with physical risk. This draws attention to the use of risk-taking as a classed concept. Sports such as polo, mountaineering and horse riding, that can be equally risky but which have an upper or upper to middle class image, do not have the same negative connotations of risk as sports with a 'working class' image, whether it reflects the socio-economic make up of or not.

Fletcher (2008) points out how Bourdieu's class analysis has been absent from the analyses of so-called "risk sports", despite being applied widely into general analyses of sport participation. He argues that the concept of risk sport is generally applied to sports undertaken by the upper or professional middle classes. The values attributed to professional, middle class risk (or edge) sports include "flow experience" – the skilled survival from a risky circumstance. Examples of this are mountaineering, base-jumping and caving: experiences that are argued to lead to self-improvement and self-discovery. Why these sports are attributed with such positive values in relation to the risks they entail, when boxing and other combat sports, which also contain risk, are absent from such lists of risk/flow experience sports, is worthy of consideration. Jake's comments above have gravity in light of these distinctions. I would therefore agree with Fletcher (2008) in that the term "risk or edge sport" is a highly classed term and thus the use of it, or the absence of its use, in relation to certain sports could be explored further.

Although in sociological studies of sport intersections between class and injury-related risk taking have not been widely examined, an extensive body of theoretical and empirical literature, in particular the work of Skeggs (1997), demonstrates that class is a hugely valuable and important category of analysis and something that has material consequences to everyday lives. Sociology of sport could draw from mainstream sociology to examine risk as a classed concept as well as to explore how class shapes the everyday experiences of non-elite sporting practitioners in particular and meanings attributed to their participation. These points emerging from the data highlight the continuing relevance of class in sport. Depending on their social positioning, MMA practitioners are likely to make sense of injuries and risk of MMA in different ways. I argue that attention to the classed meanings and experiences in sport, in addition to the data on participation and social class, can bring depth to the understanding of the topic of classed experiences of sport and physical culture.

The above discussion has offered some preliminary thoughts on class and its relation to injury-related risk taking. It illustrates the approach practitioners have to injury and risk, as well as the consequences of it. Thus, as the discussion above illustrates, within the Wolf Pack gym and Warriors gym, the degree to which the practitioners took risks and negotiated them varied a great deal. Individuals would often express contradictory

accounts at the same time, while practitioners and coaches nonetheless continued to train whilst injured.

CONCLUSIONS

In this chapter I have explored how experience, stories and situated considerations intersect and are generative of embodied ways of knowing injury. These ways of knowing injury include learning from injury experiences, negotiating the consequences of injury (namely limitation and/or disruption to training practice), how to manage injuries and treatment, and the risk associated with training whilst injured (a common strategy developed by practitioners and coaches to avoid complete disruption to practice). I began by introducing some of the injury experiences of the MMA practitioners and coaches in the Wolf Pack and Warriors Gyms, illustrating the different kinds of injuries they had encountered in their own words and based on field observations and conversations with practitioners. The remainder of the chapter was dedicated to analysis and discussion, which began with an examination of what was at stake with injuries: one of the most crucial aspects shaping practitioners' injury experiences, connected with the discussion on pain in Chapter 7. I then examined how practitioners and coaches developed ways of dealing with injuries, negotiating recovery, treatment and risk through 1) experience and their encounters with injury experiences of fellow practitioners and coaches, and 2) in an active relation to the gendered space (Charlesworth & Young, 2006) of the MMA gym, the 'sport ethic' (Donnelly, 2001) and other social contextual influences, including how the stage of the life course (Robinson, 2008) influenced the ways in which they made sense of injuries and related risks. Throughout the chapter I have illustrated key analytical points through field data, interviews and injury stories practitioners shared with me during my fieldwork.

The analysis and discussion presented in this chapter has proposed to examine injury experiences from a slightly different perspective. I have utilised an interdisciplinary, analytical frame that consists of the phenomenology of Merleau-Ponty (1962), the ways of knowing approach introduced by Harris (2007) and the socio-narratology of Frank (2010). Through this analytical lens, injury as an embodied, experientially grounded, situated way of knowing allowed me to draw analytical attention to the process where practitioners and coaches learn shared ways of making sense of, negotiating and the consequences of injury, as well as the role that experience, stories and context play in this process.

There is a wealth of existing research on the subject of sport and injuries that has examined why predominantly elite sports practitioners decide to train through injuries. The focus of sporting injury research has predominantly been on elite sporting contexts (see Howe, 2004 for example). However these studies have paid limited attention to the ways in which practitioners actively negotiate their experiences in relation to their particular sporting environment, and in non-elite contexts. A wide range of empirical and theoretical studies has also examined the consequences of injury to practitioner identities. The approach proposed here has offered insight into the manner in which everyday experiences, interactions and stories within a particular context are generative of ways of knowing injury, informing MMA practitioners' and coaches' experiences of injury, negotiations of injury and risk as they actively make sense of them. This chapter also highlights how practitioners and coaches take up, resist and/or challenge contextual influences, and, although it is only a preliminary note, it has called for consideration to examine risk as a classed term in context of sports injury. Finally, this chapter has contributed to the existing literature by further examining the potential of phenomenology for the study of injury in sports, and offers an account of sporting injuries in a non-elite context.

CHAPTER 8: CONCLUSION

The analysis of the ethnographic data on the experiences and practices of non-elite mixed martial artists and coaches presented in this thesis, has examined the dynamics and processes through which experientially grounded corporeal varieties of knowing are developed. I have also explored the continuing promise of phenomenology (Allen Collinson, 2009, p. 98) to contribute to the emerging literature that fleshes out the social scientific study of embodiment in sport and physical culture. As such this thesis engages with a number of key debates within sociology of embodiment and physical cultural studies that have been concerned with the relationship between experience, embodiment and the environment.

In this closing chapter I discuss the findings of the thesis 1) in relation to the aims and general research questions which guided the project as a whole, 2) with reference to these key debates and, 3) in relation to varieties of knowing that were found to be central to MMA: skill, pain and injury. I also examine the achievements and contribution of this study to the social scientific study of MMA. In doing so I demonstrate what MMA and the phenomenology of Merleau-Ponty (1962; 1964; 2007) combined with a 'ways of knowing' perspective (Harris, 2007a) can offer as an analytical stance for understanding experience, embodiment and knowledge, and the processes and dynamics that are constitutive of ways of knowing, within sociology of sporting embodiment. In addition, I critically discuss the methodological contribution this study makes to the emerging academic body of literature on MMA and value of the participant-researcher approach. I also consider some of the limitations of the project. Finally, I discuss some potential avenues for further research.

UNCOVERING THE DYNAMICS AND PROCESSES OF EMBODIED VARIETIES OF KNOWING: FOR MMA AND BEYOND

In Chapter 1, I introduced some of the key debates within the sociology of embodiment and sociology and anthropology of knowledge, which this thesis engages with. Within these debates, Shilling (2007a), amongst others, has underscored the uncertainty and elusiveness of the body, which has characterised the sociological disciplines' relationship with 'flesh' and pointed to the need to develop accounts which are sensitive to the lived embodied subjects whilst acknowledging the consequences and constraints

of body's materiality. This study is situated within and contributes to this evolving body of literature that continues to interrogate some of the longstanding sociological dualisms. Within this literature, and sensitive to these concerns, Crossley (2001b) has examined the value of phenomenology to develop an approach to address the issues pointed to by Shilling (2007a), culminating in an embodied approach to sociology. Although it is often viewed as marginal to mainstream sociology, the rich body of literature on the sociology of sport and physical culture has something to offer to mainstream sociology. As Woodward (2009) has pointed out, sport can illustrate both the malleability as well as the limitations of embodiment.

However, as I have discussed in Chapters 1 and 2, Allen Collinson (2009) has drawn attention to the fact there have been relatively few studies that are truly grounded in the fleshy, lived-sporting embodiment. Consequently the pioneering work of Hockey and Allen Collinson (2007) has proposed that phenomenology offers a valuable framework for this kind of description and analysis, which has precipitated a development of studies that have sought to address this gap in the literature. My study contributes to this body of literature by exploring the potential of phenomenology to developing a more corporeally grounded understanding of how sporting knowledge is embodied and developed through experience and practice. The findings of this study offer insight into the dynamics and evolving nature of experientially grounded sporting knowledge, suggesting that the approach used here has relevance within and beyond sport.

I have outlined the features and relevance of the phenomenology of Merleau-Ponty (1962) in Chapter 2. I have argued that t concept of motility, is of particular analytical relevance because this basic intentionality is what underpins our capacity to learn in an active relation to the world around us and the opportunities for action, at hand. I have proposed to utilise phenomenology in combination with the 'ways of knowing' perspective developed by Harris (2007a) that conceptualises knowledge as an ongoing, situated and practical process, as an interdisciplinary analytical stance from which to systematically describe and analyse the lived, corporeal, sensory, intersubjective and situated constituents of the varieties of knowing. This stance, I have argued, is useful for exploring further the promise of phenomenology for the sociology of sporting embodiment. Thus, throughout this study, I have referred to ways of knowing rather than knowledge because this term reflects the processual, continuously changing and situated nature of embodied knowledge more accurately. I have also demonstrated how

the hybrid and evolving nature of ways of knowing MMA has been particularly valuable in drawing analytical attention to these dynamics.

Subsequently in the three analysis-Chapters 5, 6 and 7, I have offered particular insights and contribution to the existing work within sociological study of physical culture, and sociology of embodiment in general. The findings of this thesis offer insight into how knowing skill, pain and injury are developed. These were the key themes and varieties of knowing, central to knowing MMA, which emerged from the data.

In Chapter 5 I have examined the complexity and dynamics of developing experiential, corporeally grounded, perceptual capacities of knowing skill by describing the processes from the perspective of the learners and the coaches. I have demonstrated how the coaches and practitioners continuously craft, engaging in a variety of training practices collaboratively developing movement-perceptual skills, strategies and crucially, the ability to apply them in action, in relation to the skilled actions of training partners' competitive opponents, and the ever-changing circumstances that characterise ways of knowing MMA in practice. I have demonstrated how phenomenological concepts, together with attention to enskillment (Ingold, 2000) and body pedagogies (Shilling and Mellor, 2007a), and combined with phenomenological concepts and attention to lived-experience, sensory perception and intersubjectivity, have allowed me to draw analytical attention to how ways of knowing skill are developed in practice. This was achieved through experience, collaboration and in active relationship with the surroundings – the space of the local MMA gym and the wider context of MMA.

This study contributes to the existing literature on skills and enskillment that has predominantly focused on the perspective of the apprentices, by analysing the development of coaching as a skilled way of knowing in its own right. Thus, in Chapter 5, I have shed light on the dynamics that are constitutive of developing embodied ways of knowing skill: a) how the body is malleable, yet it is the fixed point of view from which we make sense of the world around us and, b) how knowing is a continuously worked on, analytically highlighting how there is no fixed end point to learning. I have argued that these insights and analytical approaches have relevance to the study of sport as well as other fields of experientially grounded ways of knowing, such as the field of physical education, which has only recently come to recognise the value of social theory and attention to lived experience (McMahon and Penney, 2012). However, a finding of this study has also offered insight into the varieties of ways of knowing beyond skill. As

Harris (2007a) points out, the value of this phrasing is that it promotes an inclusive sense of what is considered knowledge and emphasises the process through which ways of knowing are developed.

Chapters 6 and 7 have offered an analysis of two further varieties of knowing; non-injury related pain and injury experiences, which were also found to be constitutive of ways of knowing MMA in the Wolf Pack and Warriors gym. In Chapter 6 I have illustrated how the distinct ways of knowing pain are developed through practice, experience and interaction with fellow practitioners and coaches within the space of the MMA gym. I have described and analysed the intersubjective constitution of skilled ways of knowing pain that is how the practitioners developed, and the coaches communicated how to intentionally produce, through strikes, specific finishing moves and tactical utilisation of pain compliance. In the gym the practitioners equally learnt and were taught how receive and endure pain. In this chapter I have also described how the MMA practitioners and coaches learn to negotiate their experiences of non-injury pain. This contributes to the existing literature on pain and injury within sport, where pain has most extensively been examined in the elite, professional sporting context, as a signifier of injury. Furthermore, the chapter critically discussed the ways of knowing pain, which emerged from this study in relation to the existing work on the subject.

It also highlights the wider discourses and shapes how pain is understood paradoxically as something productive and yet simultaneously something that needs to be resisted, suppressed and overcome. Finally, the data discussed in this chapter has offered analysis of the practitioners' and coaches' perspectives to the intentional infliction of pain fundamental to MMA, demonstrating the value of empirical investigations for the study of violence in sport. Currently, many of the academic accounts of violence in sport explore the subject from socio-historical, audience/sports fandom or psychological perspectives and voices of sporting participants are often surprisingly absent. This has further illustrated the value of the phenomenology of Merleau-Ponty (1962; 1964) in analysing the ways in which the experiences and everyday practices interconnect with the gendered space of the MMA gym.

In the third data chapter, Chapter 7, I have described and analysed the way injury experiences and stories are constitutive of ways of knowing, equally fundamental to knowing MMA, together with the themes examined in the previous two chapters. I have described the practitioners' and coaches experiences of injury and injury-related pain,

illustrating the kinds of injuries they incurred and experienced existing injuries. I have also analysed how they learn to negotiate and manage risk and injuries through experientially grounded injury stories shared with fellow MMA practitioners and coaches. I have demonstrated how the phenomenological perspective is valuable for analysis here because it appreciates stories as generative of meaning and a way of making sense of injury experience. I described how practitioners share their injury experiences with fellow practitioners and coaches to develop ways of adapting training in times of injury, negotiating treatment and managing injuries, the risks associated with training whilst injured and the consequences of injuries, namely, disruption to practice. In this chapter I also analysed how the ways of knowing injury and risk were gendered and classed as well as how the practitioners' experiences and stories were informed by wider gendered and classed discourses of risk and injury in sport. In addition to the phenomenological analytical perspective, I have drawn from the narrative research within sociology of health and illness (Bendelow, 1993; Frank, 1995; Smith and Sparkes, 2005) and the socio-narratology of Frank (2010) to draw analytical attention to what experientially grounded stories do for the development of ways of knowing injury in non-elite MMA.

In addition to the contribution of the findings discussed in the above paragraphs, this study has contributed to the academic study of MMA in particular. In Chapter 1 I introduced MMA, a contemporary, hybrid, full contact fighting sport. Since its emergence in the 1990s the sport has caused controversy by placing two contestants inside a meshed-cage in a full contact contest. However, over the last decade MMA has evolved into a mediated, global sporting phenomenon, attracting participants and audiences from all over the world. As Spencer (2012b) has noted, despite its increasing popularity, MMA has so far received relatively little attention as a subject of academic enquiry. This study has offered a unique contribution to this emerging body of literature on MMA by examining the sport from the perspective of non-elite MMA practitioners and coaches in the United Kingdom. I have discussed how much of the literature on MMA has so far focused on the emergence and development of the sport. This can be understood as part of wider civilising and infomalising developments within Western nation states and in the context of development of modern sports. It was not until 2011-12 that the first, published, complete ethnographic studies of MMA by Green (2011) and Spencer (2012b) emerged. At the time of publication of his study I was in the middle of analysis and writing up.

Some concluding thoughts on methodology, limitations and avenues for further research

Using a methodological approach that is suitable in regards to the aims and objectives of this thesis was central to the successful completion of my research project. This study has offered a unique contribution to the study of MMA by offering an ethnographic account of MMA in a UK and non-elite MMA context. As I have pointed out above, apart from Spencer (2012b), the majority of the existing, relatively limited, academic research has not examined the sport from the perspective of those involved. My dual role as a researcher and as a MMA participant has been crucially important in developing these insights.

In Chapter 3 I have made the case for the use of insider-participant observation as a productive methodological approach for the study of MMA, for collecting data and developing an understanding of the processes and dynamics of how ways of knowing are developed through more explicit and tacit means. I have also reflected on the gendered positionality of the researcher and critically examined how my participant status facilitated the use of ethnography as a female researcher in a male-dominant setting. Without it, it would have been challenging to gain access, develop rapport and collect data on the experiences and practices of mixed martial artists. The point I made in Chapter 3, which I want to reiterate here, is that it is not only about being able to collect data, it is also about the quality and types of the data that can be collected as well as the kinds of questions asked by the researcher. What the practitioners would talk about with outsiders, journalists and with fellow practitioners and coaches was very different. I acknowledge that it may not be suitable or even possible for a female researcher to do ethnography in certain settings, and ethnography is not the only way to contribute to the emerging body of literature on MMA.

However, there is a need to incorporate the MMA practitioners' perspectives into this body of work. Malcolm and Sanchez-Garcia (2010) note how many accounts of MMA are not critically appreciative of the disjuncture between the mediated, commercialised image of the sport and the world of those involved in the sport. In this regard, the ethnographic method is a valuable tool for the job. It needs to be appreciated, as demonstrated by this study and those of Green (2011) and Spencer (2012b), that the practitioners' and coaches' understandings, informed by their involvement in the sport, do not simply equal the mediated image of the sport or the views of the spectators or

complete outsiders to the sport. These perspectives are not necessarily mutually exclusive, but they should not be confused as one and the same; otherwise, a narrow, uncritical view of MMA will emerge. I would suggest that it would be rather more productive to critically examine these perspectives and the interaction, overlap and contradictions between them. With appreciation of those involved in the sport of MMA, ethnographic work could offer further avenues for developing a critical understanding of this contemporary combat sports phenomenon, in conjunction with more abstract and theoretical discussions.

In this final part of the chapter I consider some of the limitations of this study and offer some suggestions regarding potential avenues for further research. As with any ethnographic study, this study offers a partial view into ways of knowing MMA and the conclusions made here cannot be generalised. The fieldwork of this study was undertaken in two gyms within an area with a growing number of MMA gyms. Therefore, these two gyms cannot be taken as representative of all the gyms in the area. Furthermore, in terms of demographics, the coaches and mixed martial artists in this study were predominantly white British, apart from two practitioners who were Black-British and one practitioner who was of Asian-British heritage and one with British-Chinese background. This is not necessarily representative of the mix of participants in MMA elsewhere in the UK, or at the elite level of the sport, as MMA is a sport with global appeal and participants all over the world. Thus it has not been possible to examine the 'ethnic/racial' dynamics in MMA, an area which certainly calls for further research. In addition, apart from my own involvement, there were no female MMA participants in either of the gyms, despite the gradual increase in the profile and popularity of women's MMA (WMMA). Consequently, the study does not address this aspect of the MMA phenomenon, which undoubtedly warrants further research. Any claims made in this study have been made with these limitations in mind.

This study contributes to the social scientific study of MMA, and to the developing literature, which seeks to examine the potential of phenomenology to the sociology of embodiment and sociology of sport in particular. Although the scope is small and the context specific, this study offers a valuable contribution to this body of literature by combining the phenomenological with interdisciplinary conceptual and analytical resources from anthropology where the use of phenomenology has been more prominent.

The analytical approach presented here, conceptualising physical cultural experiences and practices as a pathway to the development of different varieties of knowing, has application beyond the context of MMA. In this respect the study opens up some avenues for further research, which could develop and explore the potential of the approach introduced here across different fields of physical culture, and for the study of other fields where experiential forms of knowing are particularly central. This opens doors to systematic, empirical analyses of ways of knowing within physical culture and beyond that are corporeally grounded in lived experiences and can develop understanding of the situated dynamics by attending to the processes that are constitutive of these varieties of knowing.

Further research could develop an understanding of the dynamics emerging from the everyday craft in development of knowing that are appreciative of the interplay between the capacity for innovation, the possibilities, and the situated constraints and limitations of embodiment. This could yield insight into how situated categories of how class, gender and 'race', for example, are not only lived through but how living through them in the process of developing ways of knowing, in interactions with others in particular spaces, can offer insight into how these categories and power relations are woven into the ways of knowing, rendering their operation more visible.

With regards to the study of MMA, a highly mediated and controversial contemporary sporting phenomenon, there are a number of possible directions for further research. More systematic research that incorporates both participants' and coaches' voices is required to develop the breadth and depth of our understanding of this hybrid combat sport in general, in different national and geographic contexts. I would also point to how the present moment is particularly poised to explore the interconnectedness of media, new information technologies and embodied ways of knowing. This study has pointed to some ways in which the local/national and global/transnational interconnect in how ways knowing are developed. Exploring these connections within MMA could offer another fruitful avenue for further research. These are only a few of the possible directions.

Finally I would like to reaffirm my conviction that phenomenology continues to hold further promise to this developing field of study. This Thesis contributes by demonstrating the insights that can be developed by using this approach in combination with the 'ways of knowing' approach to experiential knowledge as an analytical stance

to uncover the processes and dynamics through which different varieties of embodied knowing are developed through everyday sporting experiences and practices. By offering analytical purchase on the lived-through, embodied, constantly worked upon, evolving and situated pathways to knowing, I conclude that this approach provides a fruitful avenue in the pursuit of fleshing out of the study of sporting embodiment and experientially grounded sporting knowledge.

REFERENCES:

Ahmed, J. (2004) 'Reaching the body: future directions', in Thomas, H. and Ahmed, J. (eds.) *Cultural Bodies: ethnography and theory*. London: Blackwell Publishing, pp. 283-300.

Ahmed, S. (2006) Queer Phenomenology. Durham & London: Duke University Press.

Alcoff, L. (1999) 'Towards a phenomenology of racial embodiment', *Radical philosophy*, 95, pp. 8-14.

Aldrich, S. and Eccleston, C. (2000) 'Making sense of everyday pain', *Social Science & Medicine*, 50, pp. 1631-1641.

Allen Collinson, J. (2005) 'Emotions, interactions and the injured sporting body', *International Review for the Sociology of Sport*, 40(2), pp. 221-240.

Allen Collinson, J. (2008) 'Running the routes together: co-running and knowledge in action', *Journal of Contemporary Ethnography*, 37(1), pp. 38-61.

Allen Collinson, J. (2009) 'The continuing promise of phenomenology', *Qualitative* research in sport and exercise, 1(3), pp. 279-296.

Allen Collinson, J. (2010) 'Running embodiment, power and vulnerability: notes toward a feminist phenomenology of female running', in Kennedy, E. (ed.) *Women and exercise*. London: Routledge.

Altheide, D. and Johnson, M. (1998) 'Criteria for assessing interpretive validity in qualitative research', in Denzin, N. K. and Lincoln, Y. S. (eds.) *Collecting and interpreting qualitative data*. London: Sage.

Arney, W. R. and Neill, J. (1982) 'The location of pain in childbirth: natural childbirth and the transformation of obstetrics', *Sociology of Health and Illness*, 4(1), pp. 1-24.

Atkinson, M. (2008) 'Triathlon, suffering and exiting significance', *Leisure Studies*, 27(2), pp. 165-180.

Atkinson, M. (2012) 'The empirical strikes back: doing realist ethnography', in Young, K. and Atkinson, M. (eds.) *Qualitative research on sport and physical culture*. Bingley: Emerald Publishing.

Aull-Davies, C. (2008) Reflexive ethnography: a guide to researching selves and others. London: Routledge.

Bale, J. (2006) 'The place of pain in running', in Loland, S., Skirstad, B. and Waddington, I. (eds.) *Pain and injury in sport: social and ethical analysis*. London: Routledge.

Barth, F. (2002) 'An Anthropology of Knowledge', Current Anthropology, 43, pp. 1-18.

Bendelow, G. (1993) 'Pain perceptions, emotions and gender', *Sociology of Health and Illness*, 15(3), pp. 273-294.

Bennett, T. and Silva, E. (2004) 'Everyday life in contemporary culture', in Silva, E. and Bennett, T. (eds.) *Contemporary culture and everyday life*. Oxford: Blackwell.

Bernstein, N. A. (1996) 'On dexterity and development', in Latash, M. L. and Turvey, M. T. (eds.) *Dexterity and its development*. Mahwah, NJ: Erlbaum Associates, pp. 1-24.

Bishop, S. H., La Bounty, P. and Devlin, M. (2013) 'Mixed Martial Arts: A Comprehensive Review', *Journal of Sport and Human Performance*, 1(1), pp. 28-42.

Bordo, S. (2000) *The male body: a new look at men in public and private*. Farrar, Straus and Giroux.

Bourdieu, P. (1977) *Outline of a theory of practice*. Cambridge: Cambridge University Press.

Bourdieu, P. (1990) *In other words: essays towards a reflexive sociology*. Stanford, CA: Stanford University Press.

Bourdieu, P. (1999) 'Understanding', in Bourdieu, P. (ed.) *The weight of the world:* social suffering in contemporary society. Stanford: Polity Press, pp. 607-626.

Brewer, J. D. (2002) Ethnography. Buckingham: Open University Press.

Bryman, A. (2004) Social Research Methods. Oxford: Oxford University Press.

Buffong, J. and Downes, B. (2009) Warriors of the cage: the UK's mixed martial arts fight club. London: Pennant Books.

Burke, M. (2001) 'Obeying until it hurts: coach-athlete relationships', *Journal of Philosophy of Sport*, 28(3), pp. 227-240.

Burkitt, I. (1998) 'Bodies of knowledge: beyond Cartesian views of persons, selves and mind', *Journal for the Theory of Social Behaviour*, 28(1), pp. 63-82.

Burstyn, V. (1999) *The rites of men: manhood, politics and the culture of sport.* Toronto: University of Toronto Press.

Butler, J. (2003) 'Gender trouble: feminist theory and psychoanalytic discourse', in Alcoff, L. and Mendieta, E. (eds.) *Identities: race, class, gender and nationallity*. London: Wiley Blackwell.

Carman, T. (1999) 'The body in Husserl and Merleau-Ponty', *Philosophical Topics*, 27(2), pp. 205-226.

Charlesworth, H. and Young, K. (2001) 'Why English female university athletes play with pain: motivations and rationalisations', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*

London: Elsevier, pp. 163-180.

Charlesworth, H. and Young, K. (2006) 'Injured female athletes: experiential accounts from England and Canada', in Loland, S., Skirstad, B. and Waddington, I. (eds.) *Pain and injury in sport: social and ethical analysis*. London: Routledge, pp. 89-106.

Charlesworth, S., J. (2001) *A phenomenology of working class experience*. Cambridge: Cambridge University Press.

Clifford, J. (1986) 'Partial Truths', in Clifford, J. and Marcus, G. E. (eds.) *Writing Culture: the poetics and politics of ethnography*. Berkeley, CA: University of California Press, pp. 1-26.

Clifford, J. (1990) 'Notes on (field) notes', in Sanjek, R. (ed.) *Fieldnotes: the makings of anthropology*. London: Cornell University Press, pp. 47-70.

Coffey, A. (1999) The ethnographic self: fieldwork and the representations of identity. London: Sage.

Connell, R. (1995) Masculinities. Cambridge, UK: Polity Press.

Crick, M. (1982) 'Anthropology of Knowledge', *Annual Review of Anthropology*, 11, pp. 287-313.

Crossley, N. (1996) *Intersubjectivity: the fabric of social becoming*. (4 vols). London: Sage Publications.

Crossley, N. (2001a) 'Embodiment and social structure: a response to Howson and Inglis', *The Sociological Review*, 49(3), pp. 318-326.

Crossley, N. (2001b) *Social body: identity, habit and desire*. London: Sage Publications.

Crossley, N. (2004) 'The circuit trainer's habitus: reflexive body techniques and the sociality of the workout', *Body & Society*, 10(1), pp. 37-69.

Crossley, N. (2006) *Reflexive embodiment in contemporary society*. Maidenhead: McGraw Hill.

Csordas, T. J. (1994) *Embodiment and experience*. Cambridge: Cambdride University Press.

Csordas, T. J. (1997) 'Embodiment and cultural phenomenology', in Weiss, G. and Fern Harber, H. (eds.) *The intersections of nature and culture*. New York: Routledge.

Curry, T., J. (1991) 'Articles fraternal bonding in the locker room: a profeminist analysis of talk about competition and women', *Sociology of Sport Journal*, 8(2), pp. 119-135.

Curry, T., J. and Strauss, R., H. (1994) 'A little pain never hurt anybody: a photo essay on the normalisation of sport injuries', *Sociology of Sport Journal*, 11, pp. 195-208.

Davies, G. (2013) 'New UFC deal with BT Sport goes beyond just fighting into a culture shift says Garry Cook', *The Telegraph*, [Online]. Available at: http://www.telegraph.co.uk/sport/othersports/ufc/10053247/New-UFC-deal-with-BT-Sport-goes-beyond-just-fighting-into-a-culture-shift-says-Garry-Cook.html.

de Beauvoir, S. (1974) The second sex. New York: Vintage Books.

Denison, J. and Markula, P. (2003a) 'Introduction', in Denison, J. and Markula, P. (eds.) *Moving writing: crafting movement in sport research*. New York: Berg Publishers, pp. 1-23.

Denison, J. and Markula, P. (eds.) (2003b) *Moving writing: crafting movement in sport research*. New York Peter Lang.

Denzin, N. K. and Lincoln, Y. S. (eds.) (1998) *Strategies of qualitative enquiry*. London: Sage.

Dirs, B. (2000) *Doctors demand 'total fighting' ban*. Available at: http://news.bbc.co.uk/1/hi/uk/666647.stm (Accessed: 15th October 2007).

Dirs, B. (2005) *Boxing's biggest fight*. Available at: http://news.bbc.co.uk/sport1/hi/boxing/6568593.stm (Accessed: 20th April 2007).

Donnelly, P. (2001) 'Sport and risk culture', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*. London: Elsevier, pp. 1-29.

Donnelly, P. (2006) 'Studying extreme sports: beyond the core participants', *Journal of Sport and Social Issues*, 30(2), pp. 219-224.

Downey, G. (2005a) 'Educating the eyes: bio-cultural anthropology and physical education', *Anthropology in Action: Journal for Applied anthropology in Policy and practice*, 12(2), pp. 56-71.

Downey, G. (2005b) *Learning Capoeira: lessons in cunning from an Afro-Brazilian art.* Oxford: Oxford University Press.

Downey, G. (2006a) Annual Conference of the Australasian Association for Drama, Theatre and Performance Studies. Sydney, Australia.

Downey, G. (2006b) 'The information economy in no holds barred fighting', in Fisher, M., S. and Downey, G. (eds.) *Frontiers of capital: ethnographic perspectives on the new economy*. Durham, NC: Duke University Press, pp. 108-132.

Downey, G. (2007a) 'Producing pain: techniques and technologies in No-holds barred fighting', *Social Studies of Science*, 37(2), pp. 201-226.

Downey, G. (2007b) 'Seeing with a 'sideways glance': visuomotor 'knowing' and the plasticity of perception', in Harris, M. (ed.) *Ways of knowing: anthropological approaches to crafting experience and knowledge*. New York: Berghahn, pp. 222-244.

Dunning, E. and Rojek, C. (eds.) (1992) *Sport and leisure in the civilizing process*. London: MacMillan Publishers.

Elias, N. (2000 [1978]) Civilizing process: the development of manners. Oxford: Blackwell.

Elias, N. and Dunning, E. (1986) Quest for excitement. Oxford: Blackwell Publishing.

Eliasoph, N. (2005) 'Theorising from the neck down: why social research must understand bodies acting in real space and time (and why it's so hard to spell out what we learn from this)', *Qualitative Sociology*, 28(2), pp. 159-171.

Embree, L. and Mohanty, J. N. (1997) 'Introduction', in Embree, L. and al, e. (eds.) *Encyclopedia of phenomenology*. Dordrecht: Kluwer, pp. 1-10.

Engelsrud, G. (2005) 'The lived body as experience and perspective: methodological challenges', *Qualitative Research* 5(3), pp. 267-284.

Fetterman, D. (1998) Ethnography. London: Sage.

Fletcher, R. (2008) 'Living on the edge: the appeal of risk sports for the professional middle class', *Sociology of Sport Journal*, 25, pp. 310-330.

Ford, N. and Brown, D. (2006) Surfing and social theory: experience, embodiment and the narrative of the dream glide. London: Routledge.

Foucault, M. (1977) Discipline and punish: the birth of the prison. New York: Pantheon.

Frank, A. W. (1995) *The wounded storyteller: body, illness and ethics.* Chicago: University of Chicago Press.

Frank, A. W. (2010) *Letting stories breathe: a socio-narratology*. Chicago, IL: University of Chicago Press.

Frey, J., H., Preston, F., W. and Bernhard, B., J. (2001) 'Risk and injury: a comparison of football and rodeo subcultures', in Young, K. (ed.) *Sporting bodies, damaged selves:* sociological studies of sports-related injury

London: Elsevier, pp. 211-222.

Gadamer, H. G. (1983) 'Hermeneutics as practicall philosophy', in Lawrence, F. G. (ed.) *Reason in the Age of Science*. Cambridge

MIT Press, pp. 88-138.

Gallinat, A. and Collins, P. (eds.) (2010) *The ethnographic self as a resource: writing memory and experience into ethnography*. New York: Berghahn Books.

Gentry, C. (2001) No-Holds Barred: the story of ultimate fighting. Lancs: Milo Books Ltd.

Gill, F. and MacClean, C. (2002) 'Knowing your place: gender and reflexivity in two ethnographies', *Sociological research Online*, 7(2).

Giulianotti, R. (1995) 'Participant observation and research into football hooliganism: reflections on the problems of entree and everyday risks', *Sociology of Sport Journal*, 12(1), pp. 1-20.

Goffman, E. (1963) *Stigma: notes on the management of a spoiled identity*. New Jersey, NJ: Prentice Hall.

Good, B. J. (1994) *Medicine Rationality and experience: an athropological perspective*. Cambridge: Cambridge University Press.

Grasseni, C. (2007) 'Communities of practice and forms of life: towards a rehabilitation of vision', in Harris, M. (ed.) *Ways of knowing: anthropological approaches to crafting experience and knowledge*. New York: Berghahn Books, pp. 203-221.

Gratton, C. and Jones, I. (2005) Research Methods for Sports studies. Oxon: Routledge.

Green, K. (2011) 'It hurts so it is real: sensing the seduction of mixed martial arts', *Social and Cultural Geography*, 12(4), pp. 377-396.

Grill, S. (1998) 'An invitation to the field: fieldwork and the pragmatist lesson', in Grill, S. (ed.) *Doing ethnographic research: fieldwork settings*. Thousand Oaks: Sage, pp. 3-18.

Guerandel, C. and Menneson, C. (2007) 'Gender constructions in Judo interactions', *International Review for the Sociology of Sport*, 42(2), pp. 167-186.

Hamaguchi, Y. (2006) 'Innovation in martial arts', in Nakayama, M. and Maguire, J. (eds.) *Japan, sport and society*. London: Routledge, pp. 7-18.

Haraway, D. (1991) 'Situated knowledges: the science question in feminism and the privilege of partial perspective', in Haraway, D. (ed.) *Simians, cyborgs and women*. London: Free Association Books, pp. 183-202.

Haraway, D. (1999) 'The virtual speculum in the New World Order', in Clarke, A. E. and Olesen, V. E. (eds.) *Revisioning, Health and Healing*. New York: Routledge, pp. 49-96.

Hargreaves, J. and Vertinsky, P. (2007a) 'Introduction', in Hargreaves, J. and Vertinsky, P. (eds.) *Physical culture, power and the body*. London: Routledge, pp. 1-24.

Hargreaves, J. and Vertinsky, P. (2007b) 'Introduction', in Hargreaves, J. and Vertinsky, P. (eds.) *Physical culture, power and the body*. London Routledge, pp. 1-25.

Harris, M. (2007a) 'Introduction: 'Ways of knowing", in Harris, M. (ed.) *Ways of knowing: anthropological approaches to crafting experience and knowledge*. New York: Berhahn Books, pp. 1-16.

Harris, M. (ed.) (2007b) Ways of knowing: anthropological approaches to crafting experience and knowledge (18 vols). New York: Berghahn Books.

Heiskanen, B. (2007) 'Book Review: Boxing, masculinity and identity: The "I" of the tiger by Kath Woodward', *Sociology of Sport Journal*, 24, pp. 492-505.

Heiskanen, B. (2012) *The Urban Geography of Boxing: race, class and gender in the ring.* London: Routledge.

Hirose, A. and Kei-ho Pih, K. (2009) 'Men Who Strike and Men Who Submit: Hegemonic and Marginalized Masculinities in Mixed Martial Arts', *Men and Masculinities*.

Hockey, J. and Allen Collinson, J. (2007) 'Grasping the phenomenology of sporting bodies', *International Review for the Sociology of Sport*, 42(2), pp. 115-131.

Holy, L. (1984) 'Theory, method and the research process', in Ellen, R. F. (ed.) *Ethnographic Research: A guide to general conduct*. London: Academic Press, pp. 13-34.

Howe, D. (2001) 'Welsh rugby union: pain, injury and medical treatment in a professional era', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*

London: Elsevier, pp. 237-250.

Howe, D. (ed.) (2004) Sport, professionalism and pain (10 vols). London: Routledge.

Howe, D. (2011) 'Impairment: sporting bodies: sensuous, lived and impaired', in Mascia-Lees, F., E. (ed.) *A Companion to the anthropology of the body and embodiment*. Oxford: Wiley-Blackwell, pp. 276-291.

Howes, M. (1998) *The Civilising of the Ultimate Fighting Challenge*. Conference Paper. University of Aberdeen.

Howson, A. and Inglis, D. (2001) 'The body in sociology: tensions inside and outside sociological though', *The Sociological Review*, 49(3), pp. 297-317.

Hughes, J. (1990) *Philosophy of Social Research*. Harlow: Longman Group Limited.

Hughes, R. and Coakley, J. (1991) 'Positive deviance among athletes: the implications of overconformity to the sport ethic', *Sociology of Sport Journal*, 8, pp. 307-325.

Husserl, E. (1931) *Ideas: general introduction to pure phenomenology* Translated by Boyce Gibson, W. R. New York: MacMillan.

Ingold, T. (1993) 'The temporality of landscape', World Archaeology, 25(2), pp. 152-174.

Ingold, T. (2000) *The perception of the environment: essays in livelihood, dwelling and skill.* London: Routledge.

Ingold, T. (2008) *Proceedings of the British Academy*. London, 2008.

Jackson, G. and Crigger, K. (2009) *Jackson's mixed martial arts: the stand-up game*. Las Vegas: Victory Belt Publishing.

Jackson, M. (1996) *Things as they are: new directions in Phenomenological anthropology*. Bloomington and Indianapolis: Indiana University Press.

Johnson, R. (2011) Knowing in our bones: the embodied knowledge of somatic educators. Daarbucken, DE: Lambert Academic Publishing.

Jones, D. E. (ed.) (2002) *Combat, ritual and performance: anthropology of the Martial Arts.* Westport, CT: Praeger Publishers.

Jones, M. (2008) Skintight: an anatomy of cosmetic surgery. Oxford: Berg Publishing.

Kerry, D. S. and Armour, K. M. (2000) 'Sports sciences and the promise of phenomenology: philosophy, method and insight', *Quest*, 52(1), pp. 1-17.

Kleinman, A. (1980) *Patients and healers in the context of culture*. Berkeley: University of California Press.

Kohn, T. (2007) 'Bowing onto the mat: discourses of change through Martial Arts practice', in Coleman, S. and Kohn, T. (eds.) *The discipline of leisure: embodying cultures of 'recreation*. Oxford: Bergham Books.

Kotarba, J., A. (2001) 'Professional athletes' injuries: from existential to organisational analyses', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*. London: Elsevier, pp. 99-116.

Lamb, S. (2000) White Saris and sweet mangoes: aging, gender and body in North India. Berkeley & Los Angeles: University of California Press.

Lande, B. (2007) 'Breathing like a soldier: culture incarnate', in Shilling, C. (ed.) *Embodying sociology: retrospect, progress and prospects.* Oxford: Blackwell Publishing, pp. 95-108.

Lave, J. and Wenger, E. (1991) *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.

Laverty, D. (2003) 'Hermeneutic phenomenology', *International Journal of Qualitative Methods*, 2(3), pp. 21-35.

Lawler, S. (2008) *Identity: sociological perspectives*. Cambridge: Polity Press.

Leder, D. (1990) The absent body. Chicago: University of Chicago Press.

Lee, B. and Uyehara, M. (1977) *Bruce Lee's fighting method: Basic training v. 2.* US: Ohara Publications Inc. .

Lewis, N. (2000) 'The climbing body, nature and the experiences of modernity', *Body & Society*, 6, pp. 58-70.

Loland, S. (2006) 'Three approaches to the study of pain in sport', in Loland, S., Skirstad, B. and Waddington, I. (eds.) *Pain and injury in sport: social and ethical analysis*. 1st edn. London: Routledge, pp. 49-63.

Loland, S., Skirstad, B. and Waddington, I. (eds.) (2006) *Pain and injury in sport:* social and ethical analysis (10 vols). London Routledge.

Lorimer, H. (2008) 'Cultural geography: non-representational conditions and concerns', *Progress in Human Geography*, 32, pp. 551-559.

MacDonald, I. (2007) 'Bodily practice, performance art, competitive sport: a critique of Kalaripayattu, martial art of Kerala', *Contributions to Indian sociology*, 41(2), pp. 143-168.

Madison, D. S. (2007) Critical ethnography: method, ethics and performance.

Mahmood, S. (2005) *Politics of Piety: the Islamic revival and the feminist subject*. Princeton: Princeton University Press.

Malcolm, D. (2009) 'Medical uncertainty and clinician athlete relations: the management of concussion injuries in Rugby Union', *Sociology of Sport Journal*, 26, pp. 191-210.

Marchand, T. (2007) 'Crafting knowledge: the role of "parsing and production" in the communication of skill based knowledge among Masons', in Harris, M. (ed.) *Ways of knowing: anthropological approaches to crafting experience and knowledge18*. New York: Berghahn Books, pp. 181-201.

Marchand, T. (2010) 'Making knowledge: explorations of the indissoluble relation between minds, bodies and environments', *Journal of the Royal Anthropological Institute*, 21(1), pp. 2-20.

Markula, P. (2003) 'Bodily dialogues: writing the self', in Denison, J. and Markula, P. (eds.) *Moving writing: crafting movement in sport research*. New York: Berg Publishers, pp. 27-50.

Markula, P. and Silk, M. (2011) *Qualitative Research for Physical Culture*. New York: Palgrave MacMillan.

Mascia-Lees, F., E (ed.) (2011) A Companion to the anthropology of the body and embodiment. Oxford: Wiley Blackwell.

Masciotra, D., Ackermann, E. and Roth, W. M. (2001) "Maai': the art of distancing in karate do: mutual attunement in close encounters', *Journal of Adult Development*, 8(2), pp. 119-132.

Mauss, M. (1973) 'Techniques of the body', *Economy & Society*, 2, pp. 70-88.

Mayeda, D., T. and Ching, D., E. (2008) Fighting for acceptance: mixed martial arts and violence in American Society. New York: iUniverse Inc. Publishing.

McCutcheon, T., I., Curtis, J., E. and White, P., G. (1997) 'The socio-economic distribution of sports injuries: multivariate analyses using Canadian national data', *Sociology of Sport Journal*, 14, pp. 57-72.

McDowell, L. (1999) *Gender, Identity & Place: Understanding Feminist Geographies*. Minneapolis: University of Minnesota Press.

McMahon, J. and Penney, D. (2012) 'Body pedagogies, coaching and culture: three Australian swimmers' lived experiences', *Physical Education and Sport Pedagogy*, pp. 1-19.

McNamee, M., Olivier, S. and Wainwright, P. (2007) Research ethics in exercise, health and sport sciences. London: Routledge.

Merleau-Ponty, M. (1962) *Phenomenology of Perception*. London: Routledge & Kegan Paul.

Merleau-Ponty, M. (1963) *Structure of Behaviour*. Translated by Fisher, A. L. Boston: Beacon Press.

Merleau-Ponty, M. (1964) *The primacy of perception*. USA: Northwestern University Press.

Merleau-Ponty, M. (1969) *The visible and invisible*. Translated by Lingis, A. Evanston, IL: Northwestern University Press.

Merleau-Ponty, M. (2007) World of Perception. London: Taylor & Francis.

Messner, M. (1990) 'When bodies are weapons: masculinity and violence in sport', *International Review for the Sociology of Sport*, 25(3), pp. 203-220.

Messner, M. (1992) *Power at play: sports and the problem of masculinity*. Boston: Beacon Press.

Miller, M. (2008) 'Ultimate Cash Machine', Forbes, 181(9), pp. 80-86.

Moran, D. (2005) Introduction to phenomenology. London: Routledge.

Moreno, E. (1995) 'Rape in the field: reflections from a survivor', in Kulick, D. and Willson, M. (eds.) *Taboo: sex, identity and erotic subjectity in anthropological fieldwork*. London: Routledge.

Morley, J. (2001) 'Inspiration and expiration: yoga practice through Merleau-Ponty's phenomenology of the body', *Philosophy east and west*, 51(1), pp. 73-82.

Nakayama, M. and Maguire, J. (eds.) (2006) *Japan, sport and society* (12 vols). London: Routledge Publishing.

Namaste, V. K. (2006) 'Sexuality, gender and the regulation of public space', in S., S. and Whittle, S. (eds.) *Transgender studies reader*. London: Routledge.

Nancy, J. L. (2000) Being singular plural. Stanford, CA: Stanford University press.

Nast, H. and Pile, S. (1998) *Places Through the Body*. New York and London: Routledge.

Nayak, A. (2006) 'Displaced masculinities: Chavs, youth and class in the Post-industrial city', *Sociology* 40(5), pp. 813-831.

Nettleton, S. and Watson, J. (1998) Body in everyday life. London: Routledge.

Nixon, H., L. II (1993) 'Accepting the risks of pain and injury in sport: mediated cultural influences on playing hurt', *Sociology of Sport Journal*, 10, pp. 183-196.

Nixon, H., L. II (2001) 'Cultural, structural and status dimensions of pain and injury experiences in sport', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*. London: Elsevier, pp. 81-98.

O'Connor, E. (2007) 'Embodied knowledge in glassblowing: the experience of meaning and the struggle towards proficiency', in Shilling, C. (ed.) *Embodying sociology:* retrospect, progress and prospects. Oxford: Blackwell Publishing, pp. 126-141.

Ochs, E. and Capps, L. (2001) *Living narrative: creating lives in everyday storytelling*. Cambridge, MA: Harvard University Press.

Okely, J. (2007) 'Fieldwork embodied', in Shilling, C. (ed.) *Embodying sociology:* retrospect, progress and prospects. Oxford: Blackwell Publishing, pp. 65-79.

Palsson, G. (1994) 'Enskillment at sea', *Journal of the Royal Anthropological Institute*, 29(4).

Palsson, G. (1995) 'Learning by fishing: practical science and scientific practice', in Hanna, S. and Munasinghe, M. (eds.) *Property rights in a social and ecological context: case studies*. Washington, DC: International Bank for Reconstruction and development.

Parry, J. (2006) 'The intentional infliction of pain in sport: ethical perspectives', in Loland, S., Skirstad, B. and Waddington, I. (eds.) *Pain and injury in sport: social and ethical analysis*. London: Routledge, pp. 144-162.

Penn, B., Cordoza, G. and Krauss, E. (2010) *Mixed martial arts: The book of knowledge*. California: Victory Belt Publishing.

Pike, E., C. J. (2001) 'Risk, pain and injury: a natural thing in rowing?', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*. London: Elsevier, pp. 151-162.

Pitts, V. (2003) *In the flesh: the cultural politics of body modification*. London: Palgrave MacMillan.

Robinson, V. (2008) Everyday masculinities and extreme sport. Oxford: Berg Publishers.

Roderick, M. (2001) 'English professional soccer players and the uncertainties of injury', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*. London: Elsevier, pp. 137-150.

Roderick, M. (2006) 'The sociology of pain and injury in sport: main perspectives and problems', in Loland, S., Skirstad, B. and Waddington, I. (eds.) *Pain and injury in sport: social and ethical analysis*. 1st edn. London: Routledge, pp. 17-33.

Rojek, C. (1992) Sport and leisure in the civilizing process: critique and counter critique. Toronto: University of Toronto Press.

Sabo, D. (2001) 'The politics of sport injury: hierarchy, power and the pain principle', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*. London: Elsevier, pp. 59-80.

Sanchez Garcia, R. and Malcolm, D. (2010) 'Decivilizing, civilizing or informalizing? The international development of Mixed Martal Arts', *International Review for the Sociology of Sport*, 45(1), pp. 39-58.

Sands, R. (2002) Sport ethnography. Champaign, IL: Human Kinetics.

Scarry, E. (1985) *The body in pain: the making and unmaking of the world*. Oxford: Oxford University Press Paperbacks.

Sheard, K. (2006) 'Pain and injury in boxing: the medical profession divided', in Loland, S., Skirstad, B. and Waddington, I. (eds.) *Pain and injury in sport: social and ethical analysis*. London Routledge.

Sheard, K. G. (1997) 'Aspects of boxing in the Western civilising process', *International Review for the Sociology of Sport*, 32(1), pp. 31-57.

Shilling, C. (1993) The body and social theory. London: Sage.

Shilling, C. (2001) 'Embodiment, experience and theory: in defence of the sociological tradition', *The Sociological Review*, 49(3), pp. 327-344.

Shilling, C. (2003) The body and social theory. London Sage.

Shilling, C. (ed.) (2007a) *Embodying Sociology: retrospect, progress and prospects*. Oxford: Blackwell Publishing.

Shilling, C. (2007b) 'Sociology and the body: classical traditions and new agendas', in Shilling, C. (ed.) *Embodying sociology: retrospect, progress and prospects*. Oxford: Blackwell Publishing, pp. 1-18.

Shilling, C. and Mellor, P. (2007a) 'Cultures of embodied experience: technology, religion and body pedagogics', *The Sociological Review*, 55(3), pp. 531-549.

Shilling, C. and Mellor, P. (2010) 'Saved from pain or saved through pain? Modernity, instrumentalisation and religious use of pain as a body technique', *European Journal of Social Theory*, 13(4), pp. 521-537.

Shilling, C. and Mellor, P., A. (2007b) 'Cultures of embodied experience: technology, religion and body pedagogics', *The Sociological Review*, 55(3), pp. 531-549.

Sinclair, S. (1997) Making doctors: an institutional apprenticeship. London: Berg.

Skeggs, B. (1997) Formations of class and gender: becoming respectable. London: Sage Publications.

Skretta, D. (2009) 'UFC's milestone event shows how far sport has come', *USA Today*, [Online].

Available at:

http://www.mmafacts.com/index.cfm?fa=main.news&ContentGroupID=2118 (Accessed: 10 July 2009).

Smith, A. D. (2007a) 'The flesh of perception: Merleau-Ponty and Husserl', in Baldwin, T. (ed.) *Reading Merleau-Ponty: on phenomenology of Perception*. London: Routledge.

Smith, B., Allen Collinson, J., Phoenix, C., Brown, D. and Sparkes, A. C. (2009) 'Dialogue, monologue and boundary crossing within research encounters: a performative narrative analysis'.

Smith, B. and Sparkes, A. C. (2005) 'Men, sport, spinal cord injury and narratives of hope', *Social Science & Medicine*, 61, pp. 1095-1105.

Smith, S. (2007b) *True sport of glorified violence*. Available at: http://news.bbc.co.uk/go/pr/fr/-/1/hi/uk/6906889 (Accessed: 15th September 2008).

Snowden, J. (2008a) 'The Battle for Britain', in Snowden, J. (ed.) *Total MMA: Inside Ultimate Fighting*. Toronto, Canada: ECW Press.

Snowden, J. (2008b) *Total MMA: Inside Ultimate Fighting* Toronto, Canada: ECW Press.

Sparkes, A. C. (2003) 'Bodies, identities, selves: autoethnographic fragments and reflections', in Denison, J. and Markula, P. (eds.) *Moving writing: crafting movement in sport research*. New York: Berg Publishers, pp. 51-76.

Sparkes, A. C. and Smith, B. (2002) 'Sport, spinal cord injury, embodied masculinities and the dilemmas of narrative identity', *Men and Masculinities*, 4(3), pp. 258-285.

Spencer, D. C. (2009) 'Habitus, body techniques and body callusing: an ethnography of mixed martial arts', *Body and Society*, 15(4), pp. 119-143.

Spencer, D. C. (2012a) 'Narratives of despair and loss: pain, injury and masculinity in the sport of mixed martial arts', *Qualitative Research in Sport, Exercise and Health*, 4(1), pp. 117-137.

Spencer, D. C. (2012b) *Ultimate Fighting and Embodiment: violence, gender and mixed martial arts.* (8 vols). New York: Routledge Publications.

Strathern, M. (1988) *The Gender of the Gift*. Berkeley: University of California Press.

Sudnow, D. (1978) Ways of the hand. Cambridge: Harvard University Press.

Tapper, N. (1991) *Bartered brides: politics, gender and marriage in an Afgan tribal society*. Cambridge: Cambridge University Press.

Theberge, N. (2003) 'No fear comes: adolescent girls, ice hockey and embodiment of gender', *Youth & Society*, 34(4), pp. 497-516.

Thorpe, H. (2012) 'The ethnographic (I)nterview in the sports field: towards a postmodern sensibility', in Young, K. and Atkinson, M. (eds.) *Qualitative Research on Sport and Physical Culture*. Bingley: Emerald Publishing, pp. 51-78.

Turner, B. S. (1984) Body and Society. Oxford: Blackwell Publishing.

Turner, B. S. (2012) 'Introduction: the turn of the body', in Turner, B. S. (ed.) *Routledge Handbook of Body Studies*. London: Routledge.

UFC (2001) *UFC Fact Sheet*. Available at: http://uk.ufc.com/index.cfm?fa=LearnUFC.FactSheet (Accessed: 10th October 2008).

Vaccaro, C., A., Schrock, D., P. and McCabe, J., M. (2011) 'Managing emotional manhood: fighting and fostering fear in Mixed Martial Arts', *Social Psychology Ouarterly*, 74(4), pp. 414-437.

Vaittinen, A. M. (2009) Embodiment in ground fighting for Mixed Martial Arts: an exploratory study in the sensuous phenomenology of sporting bodies. Master's Thesis thesis. Newcastle University

Valentine, G. (1996) 'Lesbian production of space', in Duncan, N. (ed.) *Destabilising* geographies of gender and sexuality. London: Routledge.

Van Bottenburg, M. and Heilbron, J. (2006) 'De-sportization of fighting contests: The origins and dynamics of No Holds Barred Events and Theory of Sportization', *International Review for the Sociology of Sport*, 41(3-4), pp. 259-282.

Van Wolputte, S. (2004) 'Hang onto your self: of bodies, embodiment and selves', *Annual Review of Anthropology*, 33, pp. 251-269.

Wacquant, L. (1995) 'Review article: Why men desire muscles', *Body & Society*, 1(1), pp. 163-179.

Wacquant, L. (2004) *Body and Soul: notebooks of an apprentice boxer*. Oxford: Oxford University Press.

Wacquant, L. (2005) 'Carnal connections: on embodiment, apprenticeship and membership', *Qualitative Sociology*, 28(4), pp. 445-474.

Wainwright, S., P. and Turner, B., S. (2004) 'Epiphanies of embodiment: injury, identity and the balletic body', *Qualitative Research*, 4(3), pp. 311-337.

Wainwright, S., P., Williams, C. and Turner, B., S. (2005) 'Fractured identities: injury and the balletic body', *Health (London)*, 9(1), pp. 49-66.

Wainwright, S. P. and Turner, B. S. (2006) "Just crumbling to bits"? An exploration of the ageing, injury and career in classical ballet dancers', *Sociology of Health and Illness*, 40(2), pp. 237-255.

Wheaton, B. and Beal, B. (2003) 'Keeping it real: subcultural media and the discourses of authenticity in alternative sport', *International Review for the Sociology of Sport*, 38(2), pp. 155-176.

White, P. (2001) 'The costs of injury from sport, exercise and physical activity: a review of evidence', in Young, K. (ed.) *Sporting bodies, damaged selves: sociological studies of sports-related injury*. London: Elsevier, pp. 309-332.

Wilf, E. (2010) 'Swinging with the iron cage: modernity, creativity and embodied practice in American postsecondary jazz education', *American Ethnologist* 37(3), pp. 564-582.

Williams, S. J. and Bendelow, G. (1998) 'Pain and the "dys-appearing" body', in Williams, S. J. and Bendelow, G. (eds.) *The lived body: sociological themes, embodied issues*. London: Routledge, pp. 155-170.

Woodward, K. (2007) *Boxing, masculinity and identity: The 'I' of the tiger*. London: Routledge

Woodward, K. (2009) *Embodied sporting practices: regulating and regulatory bodies*. London: Palgrave MacMillan.

Wouters, C. (1986) 'Formalization and informalization: changing tension balances in Civilizing processes', *Theory, Culture and Society*, 3(2), pp. 1-19.

Wouters, C. (2009) 'The Civilizing of emotions: formalization and informalization', in Hopkins, D., Kleres, J., Flam, H. and Kuzmics, H. (eds.) *Theorizing emotions:* sociological explorations and applications. New York: Campus Verlag, pp. 169-194.

Yokoyama, K. (2009) Modern Gladiators: why is total fighting becoming popular in Japan - a socio historical analysis of violent combat sports in Japan with particular reference to the theory of the civilizing process. Saarbrucken, Germany: VDM Verlag Dr. Muller.

Young, I. M. (1990) *Throwing like a girl and other essays in feminist philosophy and social theory*. Bloomington & Indianapolis: University of Indiana Press.

Young, K. (1993) 'Violence, risk and liability in male sports culture', *Sociology of Sport Journal*, 10(4), pp. 373-396.

Young, K. (ed.) (2001) Sporting bodies, damaged selves: sociological studies of sports-related injury (2 vols). London: Elsevier.

Young, K. and Atkinson, M. (2012) *Qualitative research on sport and physical culture*. Bingley: Emerald Publishing.

Young, K. and White, P. (2000) 'Researching sports injury: reconstructing dangerous masculinities', in McKay, J., Michael, A. M. and Sabo, D. (eds.) *Masculinities, gender relations and sport*. London: Sage Publications.

Young, K., White, P. and McTeer, W. (1994) 'Body talk: male athletes reflect on sport, injury and pain', *Sociology of Sport Journal*, 11(2), pp. 175-194.

Young, M. (1991) An Inside Job: policing and police culture in Britain. Oxford: Clarendon Press.

Zarilli, P., B. (1998) When the body becomes all eyes: paradigms, discourses and practices of power in Kalaripayattu, a South-Indian Martial Art. Oxford: Oxford University Press.

APPENDICES

Appendix A: Glossary of Terms

Across-side

= A control position used to control the opponents/training partners' body where the body of the person on top is chest to chest, perpendicular in relation to the persons' body in the bottom across-side position.

Ankle lock/Achilles lock

= A small joint-lock and submission technique designed to compress the Achilles tendon and dislocate the ankle. The ankle and foot are trapped under the armpit of the practitioner prosecuting the submission, with their opponent/training partner facing them; their outside arm goes under, behind the ankle, hand connecting with their own wrist to lock the submission in place. The lock hyper-flexes the foot and the leverage of the forearm behind the ankle compresses painfully on the Achilles tendon.

Arm bar

= A variety of submission techniques which involve hyper-extending the elbow joint of the training partner/opponent, are covered by the term arm bar and these submissions can be executed from a range of positions e.g. bottom guard, mount. Usually involves the practitioner trapping the training partner/opponents' arm between their legs whilst controlling their wrist, usually with both hands. They need to have the training partner/opponents' elbow above their hip joint so that they can then use the leverage of their whole body against the elbow joint of the training partner/opponent.

Arm lock

= A submission hold where one practitioner uses their arms placed in a figure four shape: One arm under the training partners elbow, connecting with their own wrist whilst their other hand grabs the wrist of the person in the submission to fix their arm in place. The purpose of the submission is to hyperextend the elbow until the training partner/opponent taps out, elbow is dislocated or the arm breaks. Arm bars can be used from a variety of positions

Back control

= Back control is a ground grappling position which involves one practitioner gaining position on the back of their opponent, positioned chest to back with their arms wrapped around their training partner/opponents' neck or arm and neck and with one or both legs hooked on the inside of the training partner/opponents' thighs. A powerful control position with control of the training partner/opponents' spine and neck, allowing them to utilise strikes and chokes e.g. the rear naked choke.

Choke

= An umbrella term for a variety of submission moves which involves trapping the training partner/opponents neck using arms (rear naked choke, guillotine choke) or legs (triangle choke) designed either to cut off blood flow to the brain or the cut of airflow and render the training partner/opponent unconscious.

Guard

= The guard is a ground grappling position which originates from Brazilian Jiu-Jitsu where the practitioner has their back to the mat, with their legs wrapped around the waist of their training partner/opponent to control their hips and consequently their body movement.

Guillotine choke

=In contrast to the rear-naked choke, the guillotine choke is applied by a practitioner (either standing or on the ground) with the training partner/opponent positioned in front of them It involves back wrapping their arm over the top and under the neck of the training partner/opponent and connecting their hands together, pulling their arm up, executing the choke. It is designed to either compress the trachea preventing air flow or restrict the blood flow to the brain depending how it is applied.

Gum shield (a.k.a. mouth protector, mouth piece)

= A piece of protective equipment used by MMA practitioners, a custom made plastic protector that covers the teeth and gums in the upper jaw. It is used to minimise and prevent injury to teeth, jaw, lips and gums from the range of strikes used in MMA.

Groin protector

= A piece of protective equipment used in MMA and a range of other contact sports e.g. rugby, ice hockey, American football which MMA practitioners use in competition and often in training to protect their groin area, groin guards are equally used by male and female participants.

Half guard

= A ground grappling position where the practitioner at the bottom position with their back to the mat has control over one of the legs of their training partner/opponent in the top position. The practitioners' legs are wrapped around one of the legs of their training partner/opponent with legs tangled together, often one foot locked behind their own knee. The practitioner on top half-guard can often still use strikes from the half guard position even with their leg trapped. It is a position between the full guard, mount and across-side.

Kick shield

= A piece of equipment utilised in training strikes, predominantly kicks and knees, larger in comparison to the hand pads and rectangular in shape. The purpose of the kick shield is to allow practitioners to repeatedly rehearse kicks and knee strikes with their coaches and training partners without injuring them as the padded shield absorbs some of the force of the kicks and knees.

Knee on stomach

= A top position where the practitioner is pinning their opponent on the ground, using their weight by placing their knee on their chest, whilst their other leg is posted on the floor to stabilise the position.

Knee bar/Leg bar

= A submission technique, performed on the leg in similar fashion as the arm bar is performed on the arm designed to produce a submission by hyper-extending the knee. The practitioner traps the training partners'/opponents' leg between theirs, kneecap facing their body and secure it further with holding onto the leg with their arms, fixing it in place. The knee joint needs to be above their hips to allow them to produce the leverage required for prosecuting the submission by pushing their hips against the knee joint, hyper-extending it.

Leg lock

= A submission technique that is prosecuted on the joints of the leg: ankle, knee or hip designed to use the leverage of the whole body against a single joint of the opponents' leg. Leg locks also feature in a range of combat sports and martial arts which MMA has drawn techniques from, including sambo, Brazilian jiu-jitsu, wrestling, submissions wrestling, shoot-fighting.

MMA gloves

= Open-fingered gloves specifically designed for MMA usually around 8oz, that is much lighter compared to closed finger gloves used in boxing and thai boxing. The glove design emerged to accommodate the requirements of MMA where practitioners had to be able to strike without damaging their hands whilst also being able to utilised the grappling, clinching and submission techniques.

Mount-position

= A dominant ground grappling position where one practitioner is controlling the body of their training partner/opponent by sitting on their torso or chest (high mount). In MMA this position can be utilised to strike the opponent on the ground with punches and elbows.

Plumb

=A clinching technique, originally from Thai boxing which is designed to control the training partners/opponents neck (and consequently the body) by clamping their forearms on each side of their neck and connecting their hands at the back of the neck, and finally by squeezing their elbows in for effective neck control.

Pummelling

= Reciprocal clinching drill used to learn clinching, where practitioners are standing up with their arms tangled in an over under position. The drill involves practicing the struggle for control in the clinch in a cyclical fashion, alternating their clinching positions over under respectively with varying degrees of intensity. However the purpose of the drill is to allow the practitioners to learn movement skills for and experiences of clinching, which in sparring does not take such an exact form.

Rear naked choke

= A submission which is applied from the back control position where practitioners are positioned chest to back. The person who has the back control applies the submission by wrapping their arm under the training partner/opponents chin, connecting their hand onto their own bicep to cut the blood flow to the brain and ultimately to unconsciousness.

Shadow boxing

= An individual stand-up drill where the practitioners simulate strikes, and combinations of strikes combined with footwork patterns as if performing them against an 'imaginary' opponent.

Sprawl

= A technique designed as a defense to a takedown where the practitioner shoots their legs out back, pushing their hips down to prevent the training partner/opponent gaining control of their leg(s) and/or hips to enable the training partner/opponent to take them down onto the ground.

Striking

= Unarmed combat techniques utilised in MMA which involve delivering a blow to the opponents head or body using punches, kicks, knees and elbows.

Submission

= A skilled movement technique or finishing move that is designed to make the training partner or opponent give in by using their body and leverage against a weaker part of the training partners' or opponents body e.g. neck, knee or elbow to cause pain and potential damage.

Tapping out

= An action that MMA participants and coaches utilise to communicate submission to their training partner or an opponent (and in competition to also to inform the referee) in order to inform that they want them to stop and let go of the submission. In competition tapping out signifies defeat. Tapping out can involve physically tapping on the training partners body with a hand or foot, but it can also be verbal i.e. 'I tap'.

Thai-pads

= Equipment utilised for training striking techniques such as punches, kicks, knees and elbows which originate in Muay Thai/Thai-boxing training. The pads are rectangular shape and slightly larger, roughly the length of the forearm and attached to the practitioners arms by two to three straps to hold them in place. The larger size and shape of the pads makes them more versatile than boxing pads which are smaller and round in shape, thus it allows the mix of striking techniques used in MMA to be practiced in combination.

Transition

= Any movements that involve transitioning between two positions such as the across-side, north-south, back, guard etc. or in between the different dimensions of MMA e.g. the stand up, clinch & takedown and the ground.

Triangle choke

= Triangle choke is designed to cut the blood flow to the brain (much like the rear naked choke). Predominantly done from a bottom position e.g. guard, but can also be performed from a top position. Triangle choke from the bottom involves isolating the opponent/training partners' arm and trapping their neck by circling your leg over their neck and locking the foot of that leg behind your knee which traps their head (and arm) and it is this position that the choke can be applied.

Appendix B: Participant demographics WOLF PACK

Name	Participant Status	Age	Sex	Profession	Education	Ethnici ty
Keith	Coach/recreationa	55	M	Fitness industry	University/ Vocational	White British
Harry	Recreational	41	M	Civil Servant	University PGR	British- Asian
Jake	Recreational	25	M	Manual labourer	College	White British
Anu researche r	Recreational	30	F	Student/Fitness Industry	University PGR	White Other
Matthew	Coach/Gym owner	41	M	Full time coach & gym owner	Compulsory education	White British
Luke	Coach	30	M	Coach/Skilled manual profession	College	White British
Michael	Coach	30	M	Service industry	College	White British
Noel	Fighter - novice	25	M	Skilled manual profession	College	White British
Peter	Fighter -novice	24	M	Skilled manual profession	College	White British
Martin	Fighter	30	M	Manual profession	College	White British
Rick	Fighter - novice	25	M	Team manager, energy industry	Apprenticeship	White British
Sam	Fighter	31	M	Self-employed, construction	College	White British
Nathan	Fighter	30	M	Skilled manual profession	College	White British
Jack	Fighter	27	M	Manual profession	College	White British
Nick	Recreational	27	M	Self employed	Apprenticeship	White British
Steven	Recreational	28	M	Self-employed, construction	College	White British
Mark	Recreational	26	M	Fitness industry	College	White British
Ash	Recreational	30	M	Healthcare	University/College	Black British

Ray	Recreational	17	M	student	College	White British	
Kyle	Recreational	20	M	student	College	White British	
Karl	Recreational	19	M	student	College	White British	
Ronnie	Recreational	19	M	Manual labourer, construction	A-levels	White British	
Kevin	Recreational	26	M	Skilled manual profession	Full time College	White British	
Total numbers	23 (4 coaches, 13 recreational, 7 fighters) 23 male/1 female (the researcher)						

Appendix C: Participant Demographics – WARRIORS GYM

PARTICIP ANT	Participant Status	Ag e	Se x	Profession	Education	Ethnicity
Jake	Coach Fighter	32	M	Coach/part- time work in transport	College	White British
Tom	Coach Fighter	31	M	coach	College	White British
Mike	Coach Fighter	31	M	coach	College	White British
Jamie	Fighter coach	29	M	coach	College	White British
James	Fighter – novice	24	M	Student	University/Undergra duate	White British
Troy	Fighter	26	M	Student	University/Undergra duate	White British
Andy	Fighter – novice	21	M	Student	University/College	White British
Kai	Fighter	25	M	Service Industry	College	Black British
Liam	Recreational	19	M	Student	College	White British
Darren	Recreational	20	M	Manual profession	College – part time	White British
Phil	Recreational	18	M	Manual profession	College	White British
Warren	Recreational	21	M	Manual	College	White British
Lee	Recreational	22	M	Student	University/Undergra duate	British Chinese
Total numbers	13 (13 male,) (4 coaches, 8	fightei	rs, 5 re	ecreational)		

Appendix D: Research project information sheet

MIXED MARTIAL ARTS - Research Project Information

Name of researcher: Anu Vaittinen (a.m.vaittinen@ncl.ac.uk)

Organisation: University of NewcastleAim

The aim is to explore the practices of Mixed Martial Arts through the day-to-day experiences of the sport practitioners. This project wants to increase the knowledge of MMA practice and practitioners.

What is involved if you decide to participate?

The research takes the form of participant observation and interviews (formal & informal) with practitioners:

- Participant observation means that the researcher will observe, in some cases take part and make notes of the training sessions.
- Formal interviews with a number of participants of which time & place arranged with the participants individually to suit in order to cause minimal disruption to you. During this interview I will ask you some questions about your experiences in MMA training.
- Informal interviews where the researcher may ask some questions from participants regarding their involvement in MMA on a more informal basis prior and after training sessions.
- Your participation is always voluntary and you can withdraw participation at any time. If you withdraw, the data will not be used in the project and will be destroyed, unless you give permission to use the data collected prior to withdrawal.

Anonymity & confidentiality

Any information collected during the research project anonymised and any features from which you could be identified from will be removed unless you request otherwise. Any personal details will be kept separate from the written notes and interview records.

What happens then?

If you wish, a copy of your interview material will be provided to you after your interview. After the project, a summary of the final research report can be provided to you. Access to the full research report will be provided on request.

Please contact the researcher Anu Vaittinen (<u>a.m.vaittinen@ncl.ac.uk</u>) if you require further information.

Contact details for supervisors of my project: Dr. Cathrine Degnen (cathrine.degnen@ncl.ac.uk / 0191 222 8467); Dr. Monica Moreno Figueroa (monica.moreno-figueroa@ncl.ac.uk / 0191 222 5816) and Prof. Peter Phillimore (peter.phillimore@ncl.ac.uk / 0191 222 7920)

Appendix E: Gym owner informed consent

CONSENT FORM

Mixed Martial Arts – research project					
Name o	of the researcher: Anu Vaittinen (a.m.vaittinen@ncl.ac.uk/ tel: 07727055514)				
Name: Age: Contact Phone/	vner details: details (+ preferred method of contact) Email: read the following points carefully and initial in the box:				
1.	I confirm I have read and understood the information sheet for the above study, I have had opportunity to consider the information, ask questions and have had them				
2.	I understand and agree that the researcher will be conducting participant observation in the gym premises and will be recording information in the form of written notes.				
	I understand that the researcher will verbally inform training groups and individuals participating these sessions about the research interviewed for the above study.				
4.	I understand that the researcher will obtain written consent from the participants that are interviewed and whose interviews are audio-recorded.				
	My participation in the project is voluntary and also the individual participants training on the premises are free to decide to take/not take part in the above project and in the case of participation they have the right to withdraw at any time without giving reason and without being disadvantaged in any way.				
	I understand that any personal details and information shared in interviews or recorded during participant observation will be kept confidential and is only used for the purposes of the above research project.				
Particip Date	ant's name:				
Signatu	re				
Researc Date	cher's name:				
Signatu	re				

Appendix F: Interview Informed consent form

INTERVIEW CONSENT FORM

Mixed Martial Arts – research project

	1 /
Name of th	e researcher: Anu Vaittinen (a.m.vaittinen@ncl.ac.uk/ tel: 07727055514)
Participant Name: Age: Occupation: Contact deta Phone/Ema Please read	nils
had	opportunity to consider this information, ask questions and have received a sfactory response.
2. I cor	nfirm that I agree to be interviewed for the above study
3. I cor	nfirm and agree for the interviews to be audio- recorded.
reco	derstand that any personal details and information shared in interviews or orded during observations will be kept confidential and is only used for the coses of the above research project.
writ	derstand and agree that small sections of the written interview transcripts or ten notes may be used in published writing about the study and that I will not be stiffied at any time.
	derstand and agree that the researcher will be observing my training sessions and be recording information in the form of written notes
time of a	derstand that my participation is voluntary and that I am free to withdraw at any without giving a reason and without being disadvantaged in any way. In the case withdrawal the interview data will not be used in the project and will be disposed oppropriately.
	ne case I decide to withdraw, the data collected prior to this date CAN/
Participant's Date Signature Researcher'	

Appendix G: Participant observation informed consent

PARTICIPANT OBSERVATION CONSENT FORM

Mixed Martial Arts – research project

Name of the researcher: Anu Vaittinen (a.m.vaittinen@ncl.ac.uk/ tel: 07727055514)					
Participant details: Name: Age: Occupation: Contact details Phone/Email: Please read the following points carefully and initial in the box:					
 I confirm the researcher has verbally informed me about the above study, I have had opportunity to consider the information, ask questions and have received satisfactory response. 					
 I understand and I agree that the researcher will be observing my training sessions and will be recording information in the form of written notes 					
 I understand that any personal details and information shared with the researcher or recorded during observations will be kept confidential and is only used for the purposes of the above research project. 					
4. I understand and agree that small sections or quotes from participant observation notes may be used in published writing about the study and that I will not be identified at any time.					
5. I understand that my participation is voluntary and that I am free to withdraw at any timewithout giving a reason and without being disadvantaged in any way					
Participant's name: Date Signature					
Researcher's name: Date					
Signature:					

Interview theme flow chart – sign posts for conducting the interviews

PERSON AND PRACTICE

Who are they, how they got involved, motivations, why MMA?
What level of practice are they involved in, motivations?
Training schedule, how they balance the different elements of MMA, competition, motivations?

How does the training fit into the rest of their lives, work, family?

THE PRACTICE

(Umbrella theme for the whole of the interview) Viewing of a section of the visual material at the beginning

THEIR DESCRIPTION/COMMENTARY OF MOVEMENT

Teasing out the participants' manner of speaking about their embodied practice and the bodies in motion.

CONTENT OF PRACTICE

What happens during the sessions, ask them to tell you about their training sessions?

What kinds of training are they involved in; tease out different elements in their words – technical training, sparring, I want to know what to they do and why do their do it?

How do the different elements come together when trained separately? Role of the fitness training?

LEARNING/COACHING OF THE EMBODIED PRACTICE OF MMA

Ask them to talk how they learned the different skills for MMA How does the learning take place during the sessions – what do you need to be able to do with your body?

Do you learn the techniques straight away or over time? In the different dimensions of MMA

Stand up

Clinch

Ground

What is the role of the training partners?

Communication with training partners?

Do you study the techniques, how, books, sparring, training Is it just the coach who gives instruction during training, training partners, cooperation observed during the sessions?

Is there a mental side to the training?

How do you remember the techniques during sessions?
Has the practice shaped/changed your body?

PAIN & MMA

Provocation with the quote that MMA has been described as the sport of producing and receiving pain, what is their view, do they think pain is relevant to MMA?

In what way is pain central to MMA?

How do you express pain during the sessions?

How do you know the move is performed correctly, is pain the criterion?

Is pain always equal to injury?

What types of pain have they experienced in training, fighting?

How do they deal with pain?

INJURY & MMA

Have you had injuries during your training, fighting career? Ask them to tell about the injury they have at the moment/have experienced recently.

How do they deal with injuries, are experiences shared with peers?

Why this is how they deal with injuries?

Do they continue/stop training with injuries?

Why?/Why not?

How do they consider the risks of participation?

SOCIALITY OF EMBODIED PRACTICE

The gym and training as a social space
Do they socialise with the people they train with?
Is it an important social space for them? Why?
Have they made friends through training/training partners?

Appendix I: An example of an interview transcript of semi-structured interviews

MMA RESEARCH PROJECT INTERVIEWS

Date: 27th May 2011 Interviewee: Michael

Practitioner status: MMA participant & assistant coach Recorded/Transcript (Informed consent signed YES)

- A: It's nothing too elaborate really, just wanted to talk with you about your training and how you got involved in MMA training in the first place.
- M: All right, well I first started when, that was, when Is started with Thai boxing and stuff and came to Matthews's gym [Scrap Pack], I was young and I've trained here ever since. I've stuck to it since then and now I've started doing me [my] own classes as well now.
- A: So you enjoy the coaching as well?
- M: Yeah, yeah, I like doing the coaching as well because you really learn how people react and respond, like the things that I teach, then obviously I react to what they do and try to fit it into their training.
- A: So why did you, well you said, that you've stuck with it for quite a while now, so what is it about it that you particularly enjoy?
- M: I like doing it, it's fun coz you learn new things every day like. I've been doing it for the love of it, every day is different and you learn something new. I learn things off people that have not even been doing it for long. It's different the way they move and like the way technique, different techniques work differently on different people.
- A: Yeah, different people, different sizes and skills, someone can make a technique work really well for them.
- M: Yeah, well exactly.
- A: I also wanted to ask when did you first hear of MMA, was it when you were already training at John's?
- M: It might have been, but I'd seen a video of the very first UFC like a VHS thing. I put it in the video player and just watched, thought well, I'd fancy having a go at that. Because I was already doing the Thai boxing, when I'd come to John's anyways and I just thought I'd give it a shot.
- A: yeah and it's got so much more popular now really, you used to have to, I mean you could hardly get to watch it anywhere.
- M: Yeah, its mainstream now it is, I mean it's on every channel [not strictly true], I mean not every single channel but all over the internet and you can watch it anywhere you like.
- A: Well, the Internet for MMA is massive really, yeah, and you can get access to so many things.
- M: Well you can get so much stuff, replays, and videos and so on.
- A: So do you train most days or?
- M: I train every day, well I try to anyways. In the morning I might go for a run or do a, do like a weights circuit in the afternoon, some core work and then in the evening concentrate on then whatever I do with MMA, kickboxing, Thai boxing, jiu-jitsu,

wrestling, and any components of it really. So on the night times I just really concentrate on that and then do me [my] classes as well then.

- A: [pause] So do you work full time as well?
- M: Yeah, I do, I work every day from nine until four in like an office job but they've got a gym there so I just take full advantage of that and I've got, obviously if I want to go for a run while I'm there, it's in the middle of nowhere so I can just go for a run around, for three to four miles and then just come back. Get a shower and then go to work.
- A: Would you rather do coaching full time or what you're doing now?
- M: Yeah, without a doubt, I was just talking about that the other day and I was saying that I would rather do this all day, every day. Than go to work and just sit at the desk really. It's quite boring, I'm really quite an active person, so training is good, doing it with people and coaching them on, bringing their skills on.
- A: yeah, there's always something new, and even if you get a bit bored, well not bored but you know, there's always some aspect that
- M: Everything is evolving, all the time, it's all evolving at the moment. So I always, even though I've been doing it for so long, I still learn new things every day.
- A: Yeah, so, obviously, as you say, you've been doing the coaching for a while now, so how do you make sure you learn yourself? Do you study books or watch videos or?
- M: I study books and watch lots of videos and I watch other people train and see how they train and try and focus more on learning the coaching side now and not so much learning for myself. Because I learn things from the people I teach things to all the time. Like the way I was saying before, the way they move, the way they react and respond to things, I kind of bring in into perspective. Some of the things they've done might be new so I teach that to someone else, and you know so it broadens everyone's horizons and
- A: That's interesting, so in terms of your approach to coaching, what ways do you like to coach? Is it, kind of just showing people a little bit or do you like to be more hands on?
- M: I like the more hands on approach, like obviously at the moment; I'm trying to just get to teach the private side of it [one to one, small groups]. I do, I like, to coach when there's someone else there with the person [two people in a class], so that obviously then I can see when , from a stand out point of view when maybe their weight's not distributed properly or where their legs aren't going and moving right, or if you're doing it with the person, and there's just one person in the class then I've kind of got to take a step back and obviously if they've trying to spar then I've got to think, oh, you're moving this way or doing it wrong or it's not awkward but you get used to it.
- A: Yeah, it must take a while.
- M: Yeah, you've got to, yeah, because you're trying to think of the move from both perspectives
- A: So do you sometimes you struggle to think from a particular point of view.
- M: Yeah it gets confusing sometimes.
- A: It's, well like you say, the visual gives you some perspective, as you say.
- M: Aha,
- A: So have you trained outside the Scrap Pack Gym or have you travelled elsewhere to train.
- M: I go to quite a few places, you know, I started elsewhere, I trained few times with one coach and I mean I've done amateur boxing for a while, and I trained all over really, just anywhere, where I can get, I mean I've been to the other places a few times. But mostly I train out of the Scrap Pack gym.

- A: So have you fought in the past?
- M: I've done kick boxing, I've done Thai boxing, I've done I've had obviously a few grappling competitions, I've done MMA as well but that was like really early on when I didn't really know much about the ground game and stuff. I kind of, I had been set up for the fight not long before I got there.
- A: Yeah, because in the early days it was more like strikers versus the grapplers really.
- M: Yeah, I was like 18 when I first done it and stuff, and it's totally changed since then.
- A: Do you think of still competing now or?
- M: Oh yeah, obviously getting through me [my] knee injury and stuff, I think I will compete one time, just a few more times once I get my weight in control as well because obviously I've been doing quite a lot of strength work for my knee, so I've been putting quite a lot of size on. So if I'd fight, I would probably go to middleweight, and that would mean dropping another stone [14lbs, 1kg is 2.2lbs > roughly seven kilos.], I'm sort of half way to that now, so.
- A: Yeah so if you'd go up from that it means the guys [opponents] would just get so much bigger.
- M: Yeah, exactly.
- A: Well, the other guys we're always roughly 115 kilos and he was about 90 kg.
- M: Aha, I mean and I barely push to about a hundred [in weight].
- A: So you said you do quite a bit of fitness training as well, so how would you say, does that play out in MMA?
- M: Yeah, like, I do like quite a lot of like the fitness workouts, like a circuit workout, I mean I might just use a barbell and not put anything on it and not put it down like for full three minutes. Just do exercises, any exercises I can think of for the full three minutes without putting the bar on the floor. The exercises I do, if I decide to do some bench [press], it'll have to be stuff like that. Just like anything that really helps you in this sport. I mean obviously just doing bodybuilding reps and stuff doesn't help you coz, it's not like the same, it's not the same.
- A: Oh yeah, it doesn't really give you mobile, functional strength,
- M: It just gives you limited rep [repetition] strength.
- A: I mean I guess it can be good as a base for your training and things like power lifting and stuff like that, but, does it give you fitness in the cage?
- M: No definitely not. It needs to be sport specific these days, everything.
- A: And then there's the sort of sparring fitness as well?
- M: Yeah, you can only get that by doing it, really.
- A: You sort of get tired in a different way, with the tension; well that's how I feel anyway. Without realising you're much tenser.
- M: Yeah, exactly, it sort of goes with the territory with this sport, you've got to be prepared to hit and be hit.
- A: Yeah, do you think there's now more information about fitness and openness with training with MMA?
- M: I think that, if you get into a competition and you don't have any gas tank [fitness], so to speak, or haven't got cardio then you're going to run out really quickly. The other person can just wear you down and they may know that so I think, more and more, more people are now concentrating on more on the cardio side of things, the fitness. But obviously they're incorporated into like sparring wise, you might just do a few rounds with each other, and it's technique wise and at the same time the fitness.

A: Yeah, emixing it and developing skills. I think Wanderlei Silva has now gone back to basic weight training [a famous elite fighter] because he had so many injuries.

You were saying about your knee, so could you tell me about the injuries you've had because I know you've had a bad knee injury.

M: I mean I've probably got more injuries from playing football to be fair. I mean the little injuries, like your toes and stuff that you sometimes get in MMA. Me back is quite bad sometimes, but I think that's just wear and tear really. But yeah, me [my] knee, I came in one day and training some kicking and as I just took the weight off the other leg, for a kick, it just snapped me ACL [anterior cruciate ligament which keeps the knee together]. I dislocated me [my] knee and strained all of the ligaments around really. I also chipped me tibia and fibula bones, and instead of going to hospital, I didn't go until the day after.

A: So that didn't do it any good?

M: No, not at all.

A: So how long ago was that?

M: That would be, I think when I did it was roughly three and a half year ago. Yeah, in January it'll be four years. I got it done in June, June last year. Well over a year I've got it, it's healing up well but as I say it's just about strengthening it up really.

A: So how long did it keep you out of training?

M: It kept us out of training, when I got the operation, probably kept us out of training for about three months, I was meant to come back, I came back and did just light pads and stuff for like six months and a little more and now I hadn't done any kicks for about six months or anything like that, just some light pads. I had to do something, I got so bored sitting in the house. I'm no good with that, as soon as I was mobile I tried to drop the crutches and tried to do what I could.

A: So did you have to take any time off at the time?

M: Yeah, I did, I think that, Yeah I took about three months I took out from doing MMA and stuff. But I was back in the gym like just three weeks later. I mean obviously for others I would advise against it but I wasn't doing mega heavy weights or anything but I just got bored in the house and hobbled along with crutches and do upper body stuff on the Smith's machine, so it wasn't really harming, it was just something to, anything to keep us occupied really. I was off work for like six month and so it just takes a while.

A: Yeah, it does, and I wanted to ask about when you've got an injury like that then how does it make you feel?

M: Not very nice at the time, you just get so bored and frustrated, it's like well everyone else is doing that [MMA] and I can't it's like, I have to do something even if it's, I mean just going for a power walk using one leg, on me [my] crutches. At the time it was like just walking really even if it was just walking to the bus stop to go to physio [therapy] instead of taking the taxi and things like that. I did have to get a taxi at the early part, because I couldn't really move my leg that well but now it's healing up much better. Like I say, I'm back training, well, not as much as I should be like but as I say I've had an injury with something major like a leg, but in six months it should be really much stronger, close to 100 percent hopefully. Since I left it that long the surgeon said it might never get to a full hundred percent but it's going to be near it, hopefully yeah. So I've just really been doing everything he's told us to do.

A: So how did you get seek treatment at the time? NHS or?

M: I got treatment from the NHS but I got the knee done at the Nuffield [private hospital], like the guy, me [my] physio said I'll get the guy who'd done my knee [the physios' knee], and then he'd done my knee. He'd done my knee [the physio said] so I'll ask him to do yours. But he says it might not be in the main hospitals it might be at Nuffield

so I just said ok, cool, get it done. It is a private hospital but I had it done on the NHS, so it was really good.

A: Yeah, I've had physio there, yeah. Sometimes I've had an old school physio who just told me to stop doing what I do, especially being MMA. And others have had that as well at times.

MT: Yeah. Sometimes medical people can be a bit funny. But just like I say, it just goes with the sport..

A: So how would now decide, is it just experience, whether you'll train or not with an injury.

MT: Oh yeah, yeah, I think training obviously I wouldn't recommend it to anyone, to do what I did but, for me it was either just do something or be bored really. Because the more time I sat in the house, the more I thought awwhh, I mean I hate it, I think you'll get a bit depressed really when you can't do it.

A: Yeah it's pretty hard, I'm not really good with injuries. I mean I went to do weights yesterday, even with my leg, it felt fine and I thought it was improving and I thought I'd do like a barbell workout I did some squats and i felt my back at the time seemed a little bit weak and I wasn't really trying to power lift you know.

M: [laughs]

A: and then today it's just been ridiculous again [debilitating back pain, limiting movement quite a lot at the time], just trial and error I guess.

M: Oh yeah, that's it, one time you're fine and other time it's not.

A: Aha, and then you're off training for a while

M: yeah, tell me about that.

A: So in terms of learning your skills, there are obviously a lot of different elements in MMA, you've got your stand up stuff. Personally, how do you learn the different elements differently or is it same for all of them, stand up and ground?

M: I think on the ground, I mean I always learn more when I do things, like you know some people learn and they rather just watch, I learn when I do like if I was doing things it's like. I think you either get them two kind of people that learns like through doing it, this way, I'm a hands on person, I listen to the instructions and that but in the MMA I think it's best if you practice constantly so that it gets into your muscle memory. You're like learning and that's when it gets into your head and you don't forget it.

A: Aha. That's when, as you start practicing things you, eventually you start getting a hang of them.

M: Oh yeah.

A: For me, sometimes, the things that feel really difficult, you end up learning really well.

M: Yeah, coz you're having to take time with them, exactly. Sometimes I do forget things and then suddenly I remember them and I'm like, it comes back to us [me]. You remember, oh that's how I managed to do that years ago and then it just comes back to you and you think, yeah I remember how to do that and I might teach in one of me [my] classes because I've remembered it. I keep remembering it if I teach it to someone. That's how I got taught it so I keep doing it if I'm teaching someone else. I find, I find it good how I kind of like, get the technique in me [my] head and the I can show it to someone else and then I once I show it to someone else it's already in me [my] head so it's kind of just reviewing it, yeah.

A: For me it makes you learn it better if you have to explain it to somebody rather than just doing it or just looking at it.

M: Yeah, definitely.

- A: So what about, what do you think about training partners?
- M: I think, it's good to have like a vary, like have variation, it's good to have people that test you and then other people that you need to bring on and because obviously in a case where someone's not very good at something, then I might be able to help them and if I'm not good at something, they could help me.
- A: And I mean it seems, especially I've found in here, that everybody's dead helpful and no one is like, in here it seems to be like, everybody is helping each other if someone is stuck with something.
- M: It's just an open book really, like if you've got technique that you would like to show or I would like to show then, someone can show it. You're sharing it with everyone else and that's good. I kind of do that at the end of me [my] classes. I go if like John's not here, I go like, why don't you show us something that you do. Even if it's just a technique on the pads or something, it's like it's obviously something that gives them a little confidence as well. Because I'll let you do something then, and you do it.
- A: I mean some of the traditional arts just operate differently.
- M: Yeah, there are things that you pick from different places. It's just the way they do it, it's different and it has a different structure, more strict rather than MMA. Like jiu-jitsu at the moment it's quite a lot about how I do things, how you do things. It's kind of like I like to do this, I like to do that. It's just obviously, like I say, if you've got a traditional art then there's a way to do it, and that's what you do.
- A: Yeah. Is there a mental side to the MMA game as well?
- M: Yeah, of course, the more time, like the more time you stew over things, the like if, say for example if I picture a technique in my head I think I'll do it better than I would if I just done it off the cuff. Like I say, I watch them when they do it and that picture will move and stay in my head and kind of it's much easier mentally like preparing as well, yeah. Then you can think, yeah I can do this, here's the technique from there and just picking different things from it
- A: How does it change from once you go into something like free-rolling, your thinking and that or?
- M: I think it's just like a flow, wherever it goes really, it depends how long you've been doing it as well. If you only know a basic things, then you're only going to do basic, basic moves, basic techniques, which is fine. Because obviously, like I think, in a way the basic things work the best. Because they're simple, and they're effective.
- A: Yeah and if you don't have the basics [pause to invite response]
- M: Well then you haven't got anything to build on really.
- A: I think someone at some point described MMA as the practice of producing and enduring pain how, do you think pain tolerance is important?
- M: I think, not really no, I think it's more technique, if you've got good technique then you're not going to get hurt. Well obviously it's a contact sport so you will get hurt sometimes, and it just goes with the territory really.
- A: How would, or do you ever evaluate the risks of taking part in MMA?
- M: Oh yeah, you've got to think about what if this happens and that, but you shouldn't let it bother you in a combat sense because obviously you know what's going to happen so you just deal with it when it comes to you.
- A: Ok, well that's it. I know you need to go. Thank you
- M: No problem.